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WS1: 'CSR: Business ethics and small enterprises'

Organizers:
Mette Morsing, Copenhagen Business School, Denmark
Laura Spence, Royal Holloway, University of London, England

“The small company” is the dominant way of organizing, and as scholars, practitioners and politicians endeavour to understand and promote a corporate social responsibility engagement, we contend that an improved understanding of current CSR practices in SMEs has the potential of stimulating a high impact for global society as well as for the SMEs and their local environments themselves.

Yet, it is our claim that in the attempt to explore, develop and critique the new societal balances in the perspective of corporate social responsibility, the influence of the small business for the global economy is overshadowed by a focus on the more conspicuous merits or scandals of large multinational companies. Although it is a lot more complex to identify, to investigate, and to communicate CSR in the small business, we believe this area deserves more attention.

The workshop deals with – but not exclusively - the following areas:
1) Leadership of social issues in SMEs
2) SMEs and the working environment in a CSR perspective
3) Employees and CSR in the SME
4) Organizing CSR in the small business
5) CSR and supply chain issues in SMEs
6) Stakeholder engagement in the SME
7) Political dimensions of the SME engagement in CSR
Presentations, session WS1.1:
Chair: Mette Morsing (with Laura Spence)

Time: Thursday 22 October, 15.15-16.45
Location: Conference hall
WS1.1-1 Abstract:

‘The role of ethics and local roots in international expansion of SME’s’
by Arnd Merthens PhD, researcher/lecturer Hanze University of Applied Sciences, International Business School, Groningen, Netherlands
Frank Jan de Graaf PhD, Professor Hanze University of Applied Sciences, International Business School, Groningen, Netherlands

Within business ethics research, there has been an emphasis on large companies. Slowly, also SME’s are taken into account (Graafland e.a. 2003, LePoutre and Heene 2006). This study will focus on the role of ethical values in international trade, focusing on successful middle-sized companies that are world leader in a specific niche-market. These companies are characterised by having a strong relationship with local communities, often in rural areas, but have also a very successful international strategy (Simon 1995, 2007).

We will study the hypothesis that local self-consciousness and a strong product focus are drivers in successful international trade. The awareness of differences in ethical values is more a result of success in international business, than a critical performance indicator. However, in maintaining an international position, knowledge of ethical differences is critical.

In the paper a theoretical framework is tested by conducting case studies at ten companies: Five of them are located in the Northern Part of the Netherlands and five in the Northern part of Germany. By studying the impact of companies in two countries, the researchers can detect if national practices influence the results, or if company specific characteristics (that make them successful middle-sized companies) are the main drivers.

The research offers new insights in the relationship between ethical values, local customs and the global market place. Is intercultural training in ethics necessary to become international successful, or are a good product and a good strategy key and is insight in cultural differences only necessary to maintain a market position.

References:


SME role models on a global market:

The implications of ‘institutional CSR’ for SME-research

WORKING PAPER/DRAFT VERSION/DO NOT QUOTE

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Abstract

In this paper we analyze the institutional component of CSR in SMEs by analyzing the role of governance systems, We argue that categories of middle-sized companies called ‘Hidden Champions’ can be seen as role models of CSR, combining a good economic performance with an excellent contribution to local communities and strong ties with other stakeholders, including employees. Based on this we develop some propositions on CSR in SMEs. For example, our review suggests that local self-assurance and a strong product focus enable a company to develop a strong CSR track record combined with a strong position on international markets. This could imply that globalization does not have to lead to a race to the bottom. On the contrary, to be successful on the long term, CSR-awareness for SMEs is critical.

Keywords – SMEs, Corporate Social Responsibility, Hidden Champions, Corporate Governance, Institutional Theory
1. Introduction

In current research, an institutional perspective on CSR becomes more prominent (Campbell 2007, Matten & Moon 2008). In this paper we expand this institutional perspective on CSR to SMEs. We do this by discussing the relationship between governance systems and SMEs and exploring the relationship between CSR and a specific group of middle-sized companies, so-called Hidden Champions. We argue that Hidden Champions are the result of institutional characteristics and can be seen as proponents of ‘institutional CSR’, which we define as CSR-drivers embedded in the institutional environment of the company. We further explore this research avenue by discussing the implications for research by developing propositions. In this we relate ‘Institutional CSR’ to current debates in institutional thinking, in which the tension between an economic perspective and a socio-economic perspective on the nature of the firm becomes more and more prominent.

We describe CSR as an interaction between principles, processes of responsiveness and policies and outcomes of a company (Wood 1991). Within this descriptive definition, Wood describes three levels of influence, common in management science: An institutional level, an organizational level and an individual level. We further contribute to understanding CSR on an institutional level. The role of institutions is emerging in CSR research (Margolis & Walsh, 2003, Campbell 2007). These authors propose that research should focus on how an institutional environment is related to CSR-policies, assuming that CSR is a (By)-product of institutional conditions (Rowley and Berman 2000, Campbell 2007). We try to detect this element of CSR, which we abbreviate as ‘institutional CSR’.

Within CSR and business ethics research, there is an emphasis on large companies. Slowly, also SMEs are taken into account (Graafland e.a. 2003, Moore & Spence 2006, LePoutre and Heene 2006, Mandl & Dorr 2007). Focusing on SMEs, we assume that institutional conditions can have even more important influence on CSR than big companies. Where multinationals have the chance to choose for countries, SME’s are rooted in their country of origin.

This study will focus on the relationship between CSR and successful middle-sized companies that are world leaders in a specific niche-market. These companies are characterized by having a strong relationship with local communities, often in rural areas, but have also a very successful international strategy (Simon 1996, 2007). We assume that studying these companies enable us to relate findings in current CSR-research on multinationals with research on SME’s. The have characteristics of large and of small companies.
We will argue that Hidden Champions can be seen as role models of CSR, although the concept CSR is not mentioned in the literature about these companies. We do this by relating CSR to corporate governance. There is growing evidence that CSR is a product of governance systems and is specified per company in its governance structure (De Graaf & Herkströter 2007, Matten & Moon 2007, De Graaf & Stoelhorst 2009). In the paper we will relate the characteristics of Hidden Champions to characteristics of CSR (Jenkins 2006, Perrine et.al. 2007, Spence 2007).

By exploring the relationship between CSR and international successful middle-sized companies, a new avenue for CSR research is developed. Opportunities arise about how CSR can lead to competitive advantage on a global market by local awareness. The work of Arndt Sorge (2005) on how organizations deal with a global economy gets a micro-economic perspective. Also strategies are developed on how practices in social market economies can survive in a global economy which often leads to a race to the bottom.

Based on this, we develop propositions on ‘institutional CSR’ in SME’s.

Below we will first give an overview of current research on CSR in SMEs. Thereafter we describe CSR in its institutional context by focusing on the role of governance systems in CSR policies. Next, we relate Hidden Champions to governance systems. We argue that research suggests that network-oriented systems offer more opportunities for Hidden Champions, but acknowledge that this link is not tested yet and that in market systems Hidden Champions also occur. Following that point, we relate Hidden Champions to current CSR research on SME’s. We analyze where this stream of literature can learn from Hidden champions and argue that Hidden Champions offer a more empirical, economic sound approach to the concept of CSR. We conclude describing some new avenues for CSR research on SMEs by developing some propositions on the relationship between CSR and the characteristics of Hidden Champions.

2. CSR and SMEs

In this section we explore current research on CSR in SMEs. We will do this by discussing Spence’s “case for considering SMEs separately” (Spence 2007, 536 f.) and relate this to other relevant publications. We will conclude that from the vantage point of reassessing conceptual matters, as well as how changes in the economic and academic environment may call for adding or modifying research perspectives. When we relate this to insights into institutional theory, new propositions on CSR can be developed.

A first characteristic of CSR in SMEs is the “lack of codification of CSR” in the vast majority of
SMEs (e.g. Graafland 2003, LePourte & Heene 2006, Spence 2007). Whenever a more formalized approach of the nature described by Spence is taken, involving codes of conduct or charters of ethics, CSR or sustainability reports, membership in organizations like Global Compact, interaction with NGOs, positions like Ethics Officer or CRO (Corporate Responsibility Officer), it may be expected that the priority ranking decreases from left to right for such projects. Usually this results in a widespread presence of codes of conduct or charters of ethics in most companies, and a comparatively large absence of positions like Ethics Officer or CRO. This regularity seems to hold across the board from SMEs to large companies, albeit to a lesser degree in the latter companies. It seems to reflect the tendency of both SMEs and large firms to start with what is considered primordial, and leave items deemed less important for later, or rather to be outsourced altogether, by hiring the services of external consultants as needed (Stormer 2003). For large companies this seems like more of a problematic approach, possibly indicative of a certain amount of lack of seriousness about their CSR strategies and policies, whereas it can claim some rationality in the case of SMEs, whose financial constraints tend to leave fewer options to expand their human resources to the CSR areas (Perrini 2006).

When we relate this to an institutional perspective on CSR, CSR seems to represent specific institutional constraints and opportunities, as also suggested by Matten & Moon (2008). These researchers relate CSR to institutional practices and propose that in some countries there is a need for explicit CSR, where in other countries implicit CSR practices can be mentioned. The institutional context also determines if companies have to make it explicit. The second characteristic according to Spence is the relationship between CSR and the owner of an SME. Where in large companies managers are the first ones to decide, and shareholders are at a distance, within SMEs often the owner is the manager too. Her statement is that with regard to SMEs, it is personal motivation (of mostly owner-managers) that has companies engage in CSR much more frequently than marketing or PR motives. This touches on at least two of the major topics of this paper, namely governance typical of SMEs (see also Hollenstein 2006), and more specifically, Hidden Champions. If what she claims has ever been largely true of the typical Hidden Champion’s owner-manager, or their executive team the members of which are linked by family relationships, there is reason to believe that it is becoming less so at a fairly rapid tempo, given convergency tendencies in economies (Matten & Moon 2008).
Also, if the owner-manager is a critical determinant of CSR in SMEs, it would question some theoretical assumptions about CSR. Donaldson (1990) has made it clear that CSR theory and stakeholder theory is largely built on a more socio-economic view of the firm. Within this perspective, institutional differences are critical, as recently also suggested by authors that claim an institutional view of CSR (Campbell 2007, Matten & Moon 2008). An owner perspective on CSR would relate the concept more to an agency perspective, in which the principal is serving his/her own needs by treating stakeholders as best as possible, or as necessary.

The third characteristic is related to the principal-agent characteristics of SMEs. Spence is mentioning consequences of the principal-agent-identity in the typical owner-manager of SMEs who may indulge in making expenses as he/she sees fit, in contrast to a large company’s managing director, who is “automatically answerable to shareholders to maximize profit’’.

More important from an institutional perspective is the suggestion that companies are automatically answerable to shareholders to maximize profits. In many institutional environments a more stakeholder oriented approach exists (Aguilera & Jackson 2003, De Graaf & Herkströter 2007). Looking at it from a perspective of economic theory one may argue that the terms used in both Friedman’s (1970) “the business of business is business” quip, and mainstream economics’ talk of “profit maximizing” (Jensen & Meckling 1976) suffer so heavily from ambiguity and lack of clarity that their usefulness may be seriously questioned; but space constraints have us refrain from elaborating on them in this paper.

The fourth characteristic Spence detects is SMEs’ frequent embeddedness in local communities. The embeddedness seems to be related to both the social control under which SMEs operate, and the fewer chances SMEs have to escape their institutional environment. Multinationals have more freedom and experience to transfer operations to other countries. “Physical proximity seems to be able to translate to moral proximity”, the phenomenon remains a “double-edged sword”, as the very same structural conditions that promote moral proximity will be apt to enhance both good as well as bad business ethics, depending on what moral norms and behavioral patterns have already been in place (path dependence).

As a fifth characteristic Spence evokes the competition-related feature of SMEs constituted by their inability to effectively engage in “price wars” because of their relative lack of opportunities to benefit from economies of scale, when compared to large firms. We may want to remind ourselves of the fact that this feature had figured most notably in the rationale for ringing the death knell for
SMEs too soon in the 20th century, by economists like Schumpeter (Schumpeter 1934). Following the renaissance of economists’ interest in SME, and the analysis of their conditions of viability by Audretsch (2000), as well as the research done by Simon (1995, 2007) and Burlingham (2007) on the conditions of exceptional flourishing of certain types of SMEs (Hidden Champions, and Small Giants resp.) we agree with Spence that SMEs also harbor the potential to role-model in CSR, and not least because of the competition-related feature mentioned. That reliance on and the ensuing practice of rather more collaborative business relationships instead of highly competitive ones is conducive to better CSR performance, is argued by Spence through pointing out that “the maintenance of personal relationships externally […] [is] tied to a need to act with honesty and integrity.” Picking up on this line of thought, below, we will sketch out one way of how and why a causal relationship may be surmised between a situation of constrained competitive strategies like the one that holds for SMEs, business collaboration, a relationship of trust, and the meeting of ethical requirements. The discussion of this will be placed within the context of exploring ways of linking New Institution Economics, CSR, and business ethics.

The role of employees is seen to be the sixth characteristic that makes SMEs different. This is made specific by mentioning some indicators of this, namely “charitable support and giving”, and “ensuring the maintenance of the livelihoods”. There seems to be a striking culture dependence (societal/economic environment) of the truth of this statement, though, as also mentioned by Matten and Moon (2008). Especially in employee relationship, institutional differences are critical and where employees can be seen as people to take care for, they could also be seen as ‘key-assets’ or ‘co-workers’. As co-workers they especially have a role in very small or knowledge intensive companies.

Here, again, institutional differences are critical. Thinking of some SMEs, that are links in global supply chains, mostly located in so-called low wage countries, one is instantly reminded of the fact that their way of responding to the “importance” of their employees is very much the opposite of the above-mentioned one.

Based on this observation, and the principled indifference of business ethics quality to ownership structure and social embedding of the company as discussed above, we suggest that our statement to the effect that SMEs, especially Hidden Champions, harbor a considerable potential for being CSR role models, may benefit from qualification. The statement will be qualified with reference to types of institutional environments, and foundational approaches to ethics, that as we will argue, lend themselves to be employed as methods for conducting CSR quality assurance.
The statement thus qualified will not take anything away from the significance of CSR role modeling by SMEs, though, but rather represent more of a safeguard against “easy” but hardly useful objections.

The last point made by Spence, is about the sector dependence of SMEs’ CSR-related properties. This is grist on our mill to the extent that this confirms our conjecture of culture dependence of SMEs’ CSR performance proclivities.

Table 1. Current insights in CSR research and emerging new questions

<table>
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<tr>
<th>Current insights in CSR literature on SME’s</th>
<th>Emerging questions in CSR research</th>
</tr>
</thead>
<tbody>
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<td><strong>Uncodified practices</strong></td>
<td>How do companies respond to the emergence of the civil society and does this change the codification?</td>
</tr>
<tr>
<td><strong>Ownership as critical</strong></td>
<td>Why should they invest in CSR? Is it dependent on the person of the owner or of stakeholder pressure?</td>
</tr>
<tr>
<td><strong>Objective of the firm (owner can have mixed interests)</strong></td>
<td>Manager and owner are the same. Is maximizing profit the only goal of an SME?</td>
</tr>
<tr>
<td><strong>Inability of competing on price</strong></td>
<td>Can middle-sized companies beat big companies, given the fact that many appeared recently to compete with big companies in niche markets?</td>
</tr>
<tr>
<td><strong>Local embeddedness</strong></td>
<td>Does embeddedness mean that SMEs tend to be good corporate citizens?</td>
</tr>
<tr>
<td><strong>Employees as important stakeholders</strong></td>
<td>Does a manager have to take care of employees, or are they co-workers, more colleagues than employees? Are they key assets? Can a boss go on holiday when he has five employees?</td>
</tr>
<tr>
<td><strong>Sector dependency</strong></td>
<td>How does the ability to be a responsible company depend on the sector a company is working in?</td>
</tr>
</tbody>
</table>

Summarizing current CSR research on SMEs we see attempts of relating this line of research to more developed research areas. To do this, governance characteristics seem to be critical (Hollenstein 2006, Spence 2007). The role of the owner is critical in the development of SMEs. Second the institutional embeddedness becomes prominent. Especially the role of employees in
SMEs is related to this. We will further explore these questions, by reviewing current literature on corporate governance. Thereafter, we will try to specify this governance perspective on a micro level by relating CSR to Hidden Champions.

3. CSR and governance systems

The debate on CSR is more and more related to governance systems (De Graaf & Herkstroter 2007, Matten & Moon 2007, De Graaf & Stoelhorst 2009). In economics and management sciences, there is an extensive literature on corporate governance systems. Most often, authors define two ideal types: an Anglo-American or market-based model, especially in the US, the UK and Australia, and a network-based model common in Europe and Japan, as well as in some rapidly emerging economies such as Brazil, China and India (La Porta a.o. 2008). Also the terms liberal market systems and coordinated market based systems are mentioned here (Hall & Soskice 2007). Weimer and Paape (1999) distinguish four systems: the Anglo-American model, the Rhineland model (state employee involvement with dispersed ownership), a southern European model (large family-controlled holdings plus state involvement) and a Japanese system (state influence and many cross holdings). The governance system may be defined as the legal and more generally institutional framework within which the relationship between stakeholders and a company may be constituted.

In table 1, the predominant characteristics of the two types of governance systems are displayed. In recent economic thinking market-based thinking has been predominant. When Northern American and European economies faced fierce competition from the east in the 1970s and became aware of the growing inflexibility of many industries, economists rediscovered the benefits of market systems. With the ideas of Milton Friedman (1970), politicians such as Ronald Reagan and Margaret Thatcher were able to revitalize economies again. After the fall of the Berlin Wall, ‘market thinking’ became unquestionably overblown. In Europe, the economic union got an important boost based on the idea of a free internal market, while social welfare, taxes and other governmental policies were still nationally organized.

Current financial and economic crisis sheds new light on the weaknesses of market thinking. Market systems are very flexible, but seem to lack stability and are not the optimal way to ensure long term sustainable growth (De Graaf & Williams 2009). Recently, proponents of market thinking

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1 This system goes beyond the governmental laws on corporate governance. It also relates to legislation in the field of supervision and other regulations protecting the stakeholders e.g. by legislation which organises consumers' rights. Another Dutch example is that of the supervision of various economic sectors in The Netherlands as it is organised in commodity boards. These independent bodies operate within the legal framework prescribed by the government and are managed by employers’ and employees’ representatives.
have publicly questioned the fundamentals of the systems. Posner, who has had a big influence on the neo-liberal market thinking in the US, recently suggested to study European governance systems in developing plans to reform the US governance system.

Another weakness of market systems is their inability for incremental innovation. Nootseboom (1999, 2000, 2004) points out that market systems have a strong track record in radical innovation, but lack long term incremental innovation. This can be illustrated by the economic development of the United States in the last decades. This country has been leading in new technologies, especially within ICT. Industries that had already existed for long such as the automotive industry and steelmakers, were not able to compete on the global markets. German and Japanese car makers were much better in constantly improving their production processes and delivering state-of-the-art technology.

Governance systems can be seen as critical determinant of ‘institutional CSR’ (Matten & Moon, 2007, De Graaf Herkstróter 2007, De Graaf & Stoelhorst 2009). Governance systems importantly determine the place of stakeholders and their interests in corporate principles and policies. Thereby they influence how a company is positioned within society.

We can conclude that in this institutional perspective on CSR, the concept is related to discussions on governance systems and business models. Below we attempt to further specify this perspective by assessing the relationship between CSR and Hidden Champions.
### TABLE 2. The characteristics of governance systems

<table>
<thead>
<tr>
<th>Governance system</th>
<th>Market-based</th>
<th>Network-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>General characteristics</td>
<td>Market orientation</td>
<td>Internal orientation</td>
</tr>
<tr>
<td></td>
<td>Short-term relations</td>
<td>Long-term relations</td>
</tr>
<tr>
<td></td>
<td>Competition</td>
<td>Cooperation</td>
</tr>
<tr>
<td>Governance structure</td>
<td>Capitalist form, focus on the financial markets, the shareholders</td>
<td>Collective form, focus on a group of stakeholders</td>
</tr>
<tr>
<td>Forms of corporate control</td>
<td>Exit-based, when dissatisfied, stakeholders leave</td>
<td>Voice-based, when dissatisfied, stakeholders complain in the network</td>
</tr>
<tr>
<td>Governance mechanism</td>
<td>Contract</td>
<td>Trust</td>
</tr>
<tr>
<td>Governance evaluation</td>
<td>Third parties</td>
<td>Networks</td>
</tr>
<tr>
<td>Theory</td>
<td>Agency theory</td>
<td>Stewardship theory/ normative stakeholder theory</td>
</tr>
<tr>
<td>Research orientation</td>
<td>Agency problems between the management and shareholders</td>
<td>Balancing stakeholder interests</td>
</tr>
<tr>
<td>Countries</td>
<td>United States and Great Britain</td>
<td>Continental Europe and Japan</td>
</tr>
<tr>
<td>Stakeholder influence strategies</td>
<td>Emphasis on indirect influence-strategies (law)</td>
<td>Emphasis on direct influence-strategies (co-decision)</td>
</tr>
<tr>
<td>Characteristics of stakeholder influence-pathways</td>
<td>Regulation</td>
<td>Consultation</td>
</tr>
</tbody>
</table>

*(De Graaf and Herkströter 2007)*
4. Network models in practice: Hidden Champions

As said in the previous section, network-based governance systems have a track record in combining long term economic growth with excellent social and environmental conditions. Jeffrey Sachs (2008) recently came with a defense of European models, stating that Northern European economies combine these factors best: measures in economic equality, low poverty rates and high R&D. The downside of the system is the threat of lethargy when stakeholders only try to maintain existing positions and do not try to tackle external challenges together.

The German ‘Wirtschaftswunder’ and the social market systems of the Netherlands and Scandinavia can be seen as examples of these systems. Recently, also more detailed and micro-economic material has been published that describes the strengths of these systems on company level. In 1995, the German author Herman Simon has published a book in which he describes the success of middle-sized companies on the global market. In a later study of 2007, he found out that those companies were not only found in Germany, although in this economy relatively more Hidden Champions were found than in other regions. The 2007 study also found out that the Globalization between 1995 and 2005 did not hinder the growth of the studied companies, on the contrary, the companies flourished even more on the world market.

Simon (1996) pointed out a number of critical characteristics of the Hidden Champions (see table 2) in which a global focus, a strong focus on a very specific niche, great innovative power, averseness to outsourcing and strategic alliances and strong local ties seem to be relevant in analyzing the network economy.

**Table 3. Characteristics of Hidden Champions**

<table>
<thead>
<tr>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number one or two position in their respective world markets,</td>
</tr>
<tr>
<td>Small or medium in size (allowing for a few exceptions)</td>
</tr>
<tr>
<td>Strong ties with local communities</td>
</tr>
<tr>
<td>Low public visibility</td>
</tr>
<tr>
<td>Great innovators</td>
</tr>
<tr>
<td>Narrow product focus</td>
</tr>
<tr>
<td>Averseness to outsourcing, and strategic alliances</td>
</tr>
<tr>
<td>Closeness to customers</td>
</tr>
<tr>
<td>Their executives blend authoritarian and participative leadership styles</td>
</tr>
<tr>
<td>Low CEO and employee turnover</td>
</tr>
</tbody>
</table>
Simon suggests a relationship between the values within a network-based market system and success on the world markets. In this he is accompanied by a range of researchers that are pointing out a relationship between social values and economic success (Collins and Porras 1997, De Geus, 1997, Burlingham, 2007, Kalff 2006). Within this perspective, there is an emphasis on the critical importance of the institutional context of companies and the dynamics of learning and change in a turbulent environment (Nootbooom 2002).

We will further make this line of thinking specific, by relating the characteristics of Hidden Champions to CSR literature.

5. CSR models and Hidden Champions

In this section we shall relate each of the Hidden Champions’ features of Table 2 to (theoretical) approaches to CSR. Our discussion will take into consideration the threefold distinction made between corporate social responsibility, corporate social responsiveness, and corporate social performance, all including governance issues, stakeholder management, and sustainability (Carrol 1979, Frederick, 1987, Windsor 2006, Schwartz & Carrol 2008).

**Top-ranking position in the world market**

Critical in the work of Simon (1996, 2007) is that middle-sized companies get world leaders because they are specialized in a market niche. This seems to be related to local awareness, conservative financial policies and leads to a high level of independence and corporate stability. This seems to be related to Spence’s (2006) assumption that SMEs by their very nature may be expected to do better on governance induced issues of business ethics. Grounds for this can be found in the development of Hidden Champions and their governance characteristics. Because they are closely held by strong entrepreneurs the companies get a good start and these principles keep leading in further stages of development. Top-ranking seems to be related to strong cultures (Collins & Porras 1997, Burlingham 2007). Regardless of company size a similar case is made for companies’ CSR performance by Campbell 2007 (p. 952), who draws attention to research supporting “that firms whose financial performance is weak are less likely to engage in socially responsible corporate behavior, conventionally defined, than firms whose financial performance is strong”.


Medium in size
The strong culture in relation to worldwide success seems to be related to size also. A lower number of staff, and the resulting lesser degree of complexity may be expected to have some positive effects on an organisation’s business ethics on grounds of tight relationships between owner, manager and employee, which limits agency problems. With regard to economics and business management theory this is a debated point. There are also various authors who question the role of a strong culture (Pfeffer & Sutton, 2006). Important for the CSR debate is that the size makes it possible to create intimate ties with the local community without taking over the community. Size as determinant also opens another perspective on CSR research in which the critical differences between very small and middle seized companies should be determined.

Low public visibility
This characteristic as such should not be considered a good predictor of CSR quality in an organisation, although this topic lends itself to a differentiated exploratory research approach. On the face of it, one might even suspect this to be a factor apt to diminish CSR quality because of a lesser degree of social control engendered by low public visibility including media and NGO attention. Closer inspection seems to reveal another aspect, though. Let’s assume that a given company enjoy a high level of public visibility entailing the evaluation of their decisions and moves by those observing them, including media and the business world itself. In that case it may well be true that the company will be warier of scandals made known by media or NGOs, but this healthy effect is also likelier to be offset by the company’s proclivity to follow fads and habits considered to be at economic benchmark level in the public eye, although closer inspection would reveal them to be highly problematic from the point of view of CSR.

Great innovators
This dimension seems to be almost entirely irrelevant to SMEs’ CSR qualities, unless one assumes a positive correlation between product and process innovation and CSR related innovation, which may still be a somewhat speculative proposition to date.

Narrow product focus
This seems likely to facilitate compliance with product and/or service quality requirements, thus enhancing CSR performance in that area.
**Averseness to outsourcing and strategic alliances**
This aspect touches the normative core of CSR (Donaldson 1990). One of the most sensitive topics in the public CSR debate on the downsides of outsourcing, national interests taking precedence, and special moral obligations in so-called low wage countries. Strategic alliances, especially when given a broader reading so as to include mergers and acquisitions, open even more of a Pandora’s box of problems (among which issues of HR loyalty, quality, competition, and fair and adequate valuation of property). This brings up the question if CSR is easier when companies operate in one institutional context?

**Closeness to customers**
Together with their employee policies, closeness to customers suggests good stakeholder relations. Assuming again that customers’ wishes and demands do not depart to much from the acceptable (space forbids us to discuss ways of reducing the vagueness of “acceptable” in this paper) this characteristic of SMEs will then allow us to predict or explain a better performance in the area of moral obligations towards a notable group, namely customers. There is another dimension of closeness to customers that has to do with the fact that not only is it true that the closer you are to your customers the better will you be able to get knowledgeable about what they wish and demand, but also that you will be more knowledgeable about what they really need.

**Their executives blend authoritarian and participative leadership styles**
Blending authoritarian and participative leadership styles in itself is of course highly ambiguous with regard to CSR performance or responsiveness; this characteristic would most likely not be entailed by a sufficiently comprehensive theory of CSR. However, this characteristic may bring to mind the roles of CEOs like Howard Schultz of Starbucks or Ian Anderson of Interface. These companies are widely regarded as CSR benchmarks, and part of the explanation of their success stories may well be provided by their leadership styles, possibly boasting a blend of authoritarian and participative leadership. That being said, it should be noted that a sufficiently comprehensive theory of CSR may be expected to rather yield a norm encouraging participative leadership, possibly derivable from some social sustainability “axioms”.

**Low CEO and employee turnover**

The low CEO and employee turnover characteristic looks a lot more relevant to CSR to begin with. Although employee retention and loyalty norms have not yet become anything close to a CSR mainstay, they constitute, however, an integral part of any sufficiently comprehensive theory of CSR. This is because of the normative power of the social sustainability norm, as well as because of the overriding ethical norms of fairness and humaneness, both of which will have to figure prominently in such a theory, we presume. May it be noted in this connection that this topic is closely linked to the concept of relational contract, which we will discuss further below (...). At this point the potentially role-modeling part that Hidden Champions can play in view of “rewriting “ extant relational contracts, and more generally the Social Contract, comes into sight (we construe relational contracts as components of the Social Contract).

Considering the characteristics of Hidden Champions, we argue that the CSR components of Hidden Champions are the result of institutional characteristics. Hidden Champions have never used CSR as competitive strategy. However, their characteristics can be related to CSR features that are currently prominent in the debate. Local embeddedness, long term employer-employee relationships, low CEO-turnover all are related to CSR features. It is interesting that this is related to world market leadership, which suggests a relationship between CSR and competitive advantage. Therefore Hidden Champions can be seen as proponents of ‘institutional CSR’, which we define as implicit CSR embedded in the institutional environment of the company.

6. CSR role models, SMEs and the institutional context

In this section we try to summarize the implications of an institutional perspective on CSR in SME’s and what we can learn from the Hidden Champions in this perspective. We think the the work of Simon adds an economic perspective on CSR-research. CSR is no longer an add-on, but something that could be embedded in the structure and institutional context of a firm.

**Codification**

Codification of CSR in SMEs in the sense of a formalized presentation of CSR principles (codes of conduct, charters of values, and the reporting of CSR-inspired decisions and actions in conformance with a standardized set of guidelines like the one developed and disseminated by the Global Reporting Initiative (GRI), is the exception rather than the rule in SMEs (Spence 2007). When we
relate this to the institutional context, there should be differences in institutionalization (Matten & Moon 2008), which leads to proposition 1.

**Proposition 1: The codification of CSR in SMEs is determined by the institutional context**

If this proposition could be confirmed, it would further specify a critical finding in CSR research. However, it seems more logical to expect in every country a comparable ‘amount of codification’ in SME’s.

The proposition touches a critical discussion in corporate governance theory also (cf. Bindseil & Richter, 1995). To the degree that relational contracts with some sufficiently influential stakeholders, like unions, NGOs, or customers contain any “clauses” to the effect that various levels of codified CSR are requested or required, it may indeed be expected that codification will be done accordingly. Some variants of principal-agent relationships will be equally relevant. Assuming e. g. that company A is powerful enough to act as a principal with regard to company B (the agent; for the sake of our argument let the latter be an SME supplier), B will again be motivated to codify their CSR to the level demanded. The latter situation has become quite frequent because of large manufacturers’ worries about their reputation being sullied as a consequence of scandals in their upstream supply chains. Similar developments may be expected and ought to be encouraged with regard to the downstream supply chain, which would obviously require changes in the institutional environment². Should influential stakeholders or a very conspicuous one among them, e. g. the general public, demand that suppliers see to it that their buyers (large manufacturing companies for instance) comply with a specified set of CSR rules, it would be Hidden Champions who might be the only ones powerful enough to see this through.

**Ownership, governance and the institutional context**

Within an institutional perspective on CSR, the institutional context heavily decides if and when stakeholders have influence (De Graaf & Herkströter, 2007, Matten & Moon 2008). This is also demonstrated by the legal frameworks in which SMEs operate. Bigger companies face large regulation, also concerning stakeholder influence. For example, in many Northern European countries a works council is obligatory. Combined with the critical role of owners in SME,

² We are indebted to Hans Gscheidmeyer, who recently communicated this idea to me in conversation
stakeholder influence will be of a different nature. In the role of stakeholders, the person of the owner will probably be of importance, which leads to proposition 2.

**Proposition 2: The owner is a critical determinant in the stakeholder influence on the policies of SME’s**

This proposition may well be in connection with the role of governance, which we characterize as the system of values, norms, and habits that allows to explain and predict companies’ balancing of stakeholder rights and demands. It defines the governance aspect of CSR in SMEs. For example, employees benefit from legal environments that are rather more protective of employees’ rights, most notably in European network-based systems. Also, it is suggested that these legal circumstances have important consequences for the cooperation within companies, generating specific principal-agent relationships. It suggests a responsive owner as critical determinant in CSR, overcoming the academic discussion between stakeholder theory and agency theory. This leads to proposition 3:

**Proposition 3: CSR in SMEs implicates a responsive owner**

If owners do not treat their employees and business partners with due respect, they may risk to be out of business as they more often than not don’t have the option of high employee turnover, or rapidly shifting business relationships. Moreover, if they don’t treat their stockholders fairly they may in the majority of cases directly hurt themselves or their families because of the preponderance of both family-run businesses and owner-management structures. The networks that SMEs are usually part of seem to have some distinctive features with regard to level of tightness of relationships, number of components, stability and duration of membership, that create strong incentives to a good governance record defined by exemplary responsibility in stakeholder relationship management.

If we further assume that awareness of the ethically mandatory and economically advantageous nature of network-based governance will steadily increase, we may expect SMEs to serve as role-models in that area of CSR thinking and activities across the full range of company sizes.

**The institutional environment and competing on price**

Simons (2007) suggests a critical role of the institutional environment in his Hidden Champions. In his comparative study most Champions are located in Germany, which he relates to the German culture of continuous improvement. Hidden Champions are forced to be the best, because of their
inability to compete on price in the long term. It suggests that the environment can make a critical
difference for SMEs.

This is one of the reasons SMEs have moved to the forefront of attention again because of
governmental policy making interests in control mechanisms for employment and growth
stimulation, and also in the wake of an increased popularity of vertical disintegration policies on the
part of large companies on a global scale.

Interesting here is that Simons relates his success stories not to national policies only, but describes
the local embeddedness of the companies, which creates an interesting paradox between global
success and local ties, and leads to proposition 4 and 5.

**Proposition 4: The institutional context influences the role of CSR in the competitive advantage of
SMEs**

**Proposition 5: The implementation of CSR-practices in SME’s is dependent on the institutional
environment**

Proposition 5 derives its plausibility from a similar reasoning as the previous. Partly the latter
provides support for it as well, in so far as the implementation of CSR practices will depend on the
role of CSR in SMEs, which depends in turn on the institutional environment of the company. To
add to this, a more fine-grained analysis of the institutional environment of business enterprises,
SMEs in particular, may reveal that the conditions of implementation of CSR practices depend on a
number of specific informational service items that result from specific sectors of the business
environment, namely training centers, management journals and magazines, schools of business
management, the consulting industry, and specialized organizations and initiatives like GRI and the
Global Compact that determine to what extent implementation of CSR in SMEs will be affordable
for them, and how it can or should be carried out at the project management level first, and the day-
to-day business activities later.

**Stakeholder protection in SME’s**

In their argument for implicit and explicit CSR, Moon & Matten 2008 place emphasis on the critical
role of employee protection as a determinant for various forms of CSR. Also Campbell 2007
suggests a critical role in CSR policies in the legal structure that organizes manager-employee
relationships. Current research therefore has to question when and how laws influence CSR
Proposition 6: Employee rights protection determine CSR practices within an SME

The answers to the question, what employees’ rights are, have been depending on the various results of institutional environments’ and arrangements’ interacting up to the point in time under consideration, and the debates trying to capture the essence of this are ongoing, and we would like to draw the readers’ attention again to the advantages that a broader reading of rights can have, in the sense of “ethically grounded entitlements.” Irrespective of the specific answers given to this question, which do of course vary considerably between different areas of this planet, notably between the Anglo-Saxon and the Western European societies (cf. Nooteboom 2000: 245 ff.), the protection of such rights will be a determinant of CSR practices, because it is an ethical issue (conceptual analysis yields this result).

In respect of SMEs the criticality of employee rights protection is of a special nature, though. SMEs more often than not will have closer personal ties to their employees than large companies which makes sanctioning of neglect of employee rights protection or downright infringement of such rights more direct and effective. Another special type of criticality of employee rights protection in SMEs is caused by the way that an SME’s record in that specific area of CSR tends to say more about its overall CSR performance as it is likely to be one of the few CSR areas the company will (have to) be active in, unlike in large companies where a somewhat poorer employee rights protection record may be more easily offset by efforts in other fields, like environmental protection, or philanthropy.
<table>
<thead>
<tr>
<th>Current insights in CSR areas on SME’s</th>
<th>Emerging questions in CSR research</th>
<th>Propositions given within an institutional perspective on CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncodified practices</td>
<td>How do companies respond to the emergence of the civil society and does this change the codification?</td>
<td>The codification of CSR in SMEs is determined by the institutional context</td>
</tr>
<tr>
<td>Ownership as critical</td>
<td>Why should they invest in CSR. Is it dependent of the person or of stakeholders?</td>
<td>The owner is a critical determinant in the stakeholder influence on the policies of SME’s</td>
</tr>
<tr>
<td>Objective of the firm (owner can have mixed interests)</td>
<td>Manager and owner are the same. Is maximizing profit the only goal of an SME?</td>
<td>CSR in SME’s implicates a responsive owner</td>
</tr>
<tr>
<td>Inability of competing on price</td>
<td>Can middle-sized companies beat big companies, given the fact that many recently seemed to compete with big companies in niche markets?</td>
<td>The institutional context influences the role of CSR in competitive advantage of SME’s</td>
</tr>
<tr>
<td>Local embeddedness</td>
<td>Does embeddedness mean that SME’s tend to be good corporate citizen?</td>
<td>The implementation of CSR-practices in SME’s is dependent on the institutional environment</td>
</tr>
<tr>
<td>Sector dependency</td>
<td>How does the ability to be a responsible company depend on the sector a company is working in?</td>
<td></td>
</tr>
<tr>
<td>Employees as important stakeholders</td>
<td>Does a manager have to take care of employees, or are they co-workers, more colleagues than employees?</td>
<td>Employee rights protection determine CSR practices within an SME</td>
</tr>
</tbody>
</table>
Conclusion

In this paper we have argued that SMEs, and more specifically, Hidden Champions have some characteristics that make them likely to be CSR role models if some situational and institutional prerequisites are fulfilled.

Based on prior research special emphasis has been given to the role of governance in CSR and its dependence on the institutional environment of companies. Furthermore, we have followed up on research on how the characteristics of Hidden Champions are related to characteristics of CSR, including a more in-depth analysis of Spence 2007 in view of possible add-ons or suggestions for revisions instigated by recent developments in the field.

Overseeing the characteristics of Hidden Champions, we argue that the CSR components of Hidden Champions are the result of institutional characteristics. Hidden Champions have never used CSR as a competitive strategy. However, their characteristics can be related to CSR features that are currently prominent in the debate. Local embeddedness, long term employer-employee relationships, low CEO-turnover, all are related to CSR-features. Interestingly, this is related to world market leadership, which suggests a relationship between CSR and competitive advantage. Therefore Hidden Champions can be seen as proponents of ‘institutional CSR’, which we define as ‘implicit CSR embedded in the institutional environment of the company. Relating Hidden Champions to SME-research also suggests that SME’s can not be seen as one specific area in CSR research, but probably need to split up in two groups, small and middle-seized companies.

Based on a brief sketch of our views on some extensions and modifications of extant economic theory, putting our trust in the potential we suspect New Institutional Economics and some of its variants to hold, we finally put forward and argue for 7 propositions mostly referring to some notable CSR-related features of SMEs, of which we explore options to account for by recourse to their institutional environments.

Our perspective defines CSR within SME’s as the result of being responsive in an institutional context. In this response the role of the owner is critical. This perspective is positioned in current institutional thinking in which governance systems are seen as a critical determinant for CSR. In this perspective the theoretical debate about the nature of the firm, and whether this should be assessed from an agency or a stakeholder perspective, seem to be converging on a responsive owner.
Furthermore the review suggests that local self-assurance and a strong product focus enable a company to develop a strong CSR track record combined with a strong position on international markets. This could mean that globalization does not have to lead to a race to the bottom. On the contrary, to be successful on the long term, CSR-awareness for SMEs is critical.

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WS1.1-2. Abstract:

‘The relationship between ageing workforces and Corporate Social Responsibility’
by Franz Josef Gellert, lecturer/researcher, Hanze University of Applied Sciences, International Business School, Groningen, Netherlands
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The quest for Corporate Social Responsibility (CSR) has put labour relations in a new spotlight, especially for SME’s. Were multinationals seem to focus more on the international impact of their behaviour, SME’s seem to be more focused on the local impact they have. This would suggest more attention for labour relations. This assumption is further developed by analysing the response of SME’s to an aging workforce.

The increasing number of older workers in organisations raises the question how this phenomenon is associated with organisation’s CSR. Although considerable research has been devoted to CSR, rather less attention has been paid to ageing workforces in SME’s, respectively. The objective of our research was therefore, to investigate Dutch companies how they perceive an association between both ageing workers and CSR. Our field study was conducted in the Netherlands by online questionnaires. The response of 200 organisations was analyzed by multiple regression analysis. Our results suggest that huge organisations seem to stronger associate an ageing workforce with CSR than SME’s do.
Paper

Understanding corporate social responsibility in SME’s by studying aging workforces

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Abstract

The quest for Corporate Social Responsibility (CSR) has put labor relations in a new spotlight. SME’s seem to have their own place in this discussion. Literature suggests that were multinationals seem to focus more on the international impact of their behavior, SME’s seem to be more focussed on the local impact they have. This would suggest more attention for labor relations in SME’s. This proposition is further developed by analysing the response of SME’s to an aging workforce.

The increasing number of older workers in organizations raises the question how this phenomenon is associated with CSR. Although considerable research has been devoted to CSR, an issue as aging workforces has not been used to get further insight in the concept. The objective of our research was therefore, to investigate Dutch companies how they perceive an association between both aging workers and CSR. Our field study was conducted in the Netherlands by online questionnaires. The response of 201 organizations was analyzed by multiple regression analysis. Our results suggest that middle seized organizations seem to stronger associate an aging workforce with CSR than small companies, but that smaller companies do more. The implicit un-codified character of CSR in SME’s was partly confirmed. Smaller companies were less ambitious, but more active. Also our research sheds some light about the role of stakeholders in CSR.

Key words: Aging workforce, Corporate Social Responsibility, SME’s
Introduction

Corporate social responsibility (CSR) has long been recognized as an important management topic (e.g. Carroll, 1979; 1999; Jones 1980; Wartick & Cochran, 1985; Wood, 1991; Windsor, 2001; Schwartz & Carroll, 2008), although reviews also show a struggle with the concept (Griffin & Mahon, 1997; Rowley & Berman, 2000; Griffin, 2000; Margolis & Walsh, 2003; Windsor, 2006).

This paper brings together two upcoming topics in CSR research, the CSR characteristics of Small and Medium Sized Companies (SME’s) and the role of older employees in CSR. In researching how SME’s deal with aging workforces, we try to further understand the nature of CSR in SME’s. With this objective we hope to meet calls for more descriptive research on how firms’ roles in society are actually shaped in the interactions between firms and their stakeholders (e.g. Freeman, 1999; Rowley & Berman, 2000; Griffin, 2000; Margolis & Walsh, 2003). More specific, we explore how a specific feature of CSR, associated with companies dealing with an aging workforce, is related to the behavior of SME’s in two aspects. First, the human resource policies of SME’s importantly motivated by their stakeholders or their institutional environment (Rowley & Berman 2000; Matten & Moon, 2008). Second, literature suggests that within SME’s human resource policies are formulated more implicit than explicit (Graafland et al., 2003; Spence, 2007). Both topics are highly prioritized on current research agendas.

Furthermore, research on aging workforces within a CSR perspective is relevant for the following reasons. First, aging workforces are a relevant topic in societies and businesses. Second, aging workforces need specific attention concerning the employed management style, training and working conditions. Third, if companies do not tackle the challenges aging brings to them, they could lose their market conditions because labor becomes too expensive, while many companies fight for a few young employees (Börsch-Supan, 2003; v.d.Heijden et al., 2008). With our paper we try to make some further steps in understanding CSR empirically.

In the next section, we will give an overview of CSR research, elaborate on the SME’s human resource management play in this line of research and discuss current insights on aging workforces. We will further explain why human resource policies matter and what we try to achieve with our research. The quest about the implicit and explicit character of CSR (Moon & Matten, 2008) will get attention. Where Moon & Matten (2008) have conceptualised the nature of CSR in its institutional context, we are after more theoretical evidence about the implicit nature of CSR in SME’s, a common assumption in CSR research. We continue with a conceptual model related to
aging workforces and CSR in SME’s. We finalize the paper with the method section, the results and conclusions.

Current research in CSR and on aging workforces

Since the publication of a special issue of Journal of Business Ethics on SME’s and CSR (see Moore & Spence, 2006), a steady stream of research is developing on the topic. This also applies to research on CSR in SME’s (Jenkins, 2006; Mandl & Dorr 2007; Perrini et al., 2007). Some authors even maintain that CSR thinking in stakeholder terms is pre-eminently suited for SMEs (Jenkins, 2006; Lepoutre & Heene, 2006). SMEs differ large companies which make it difficult to apply CSR findings to SMEs. (Curran, & Blackburn, 2001; Tilley, & Tonge, 2003). Authors mention three characteristics of CSR-practices in SME’s that are directly related to CSR policies:

1. Governance characteristics: The person with ultimate responsibility for running the organisation is mostly the owner-manager (Jenkins, 2006; Lepoutre & Heene, 2006)

2. Because they can not compete on scale and price, informal relationships are critical for the success of many SMEs (Lepoutre & Heene 2006; Spence, 2007)

3. Employees are very important stakeholders in SMEs (Graafland et al., 2003)

Furthermore literature suggests that CSR in SMEs is hardly codified and SME’s lack skills and resources that enable real attention for CSR (Graafland et al., 2003; Moore & Spence, 2006). It is acknowledge that employees are critical, although measures are underdefined.

Aging can be seen as an example for the current situation. Although aging is a critical topic for current companies and has important social implications (Börsch-Supan, 2003; v.d.Heijden et al., 2008), the topic is hardly mentioned in CSR literature until now, neither explicit nor implicit. If we try to position aging workforce in Jenkins (2006, p248) inventarisation of CSR practices, only employment of older and disabled people is mentioned, as if aging is only a problem. If we give ourselves more freedom, we could also relate it to mentorship (positive explanation of age) or equal opportunities (rights approach). When Fuentes-Garcia et al. (2008) makes an inventory of the relationship between CSR and human resource management, the issue of an aging workforce is not even mentioned. Studying aging workforce issues with CSR is a critical issue because results might have an impact on societies, organizations and stakeholders. We know from research that, in organizations, the management of aging workforces still seems to be a conundrum and managers and leaders consequently apply conventional management tools to its anticipated challenges (Streb, 2000).
Voelpel & Leibold, 2009). As a result, those in charge may face difficulties concerning how to direct aging workforces (Silverstein, 2008) and even more important how to combine CSR and aging workforces to mutual benefit. Our argumentation in this paper is that although CSR in itself is a difficult construct, the treatment of aging workforces within CSR lead to higher employee qualifications and therefore extends competitiveness of organizations. In this paper we study CSR in SME’s by assuming that a positive attitude to elder employees is a proxy for CSR. We conducted our research in 201 organizations, expecting that we detect a positive attitude towards elderly people which might be codified (in policies). Even more important, our underlying assumption is a strong relationship between organizations’ size and the attitude towards elderly employees. Therefore, we want to explore the following research questions in this paper:

1. Are attitudes towards elderly people codified (CSR) in SME’s?
2. Does company’s size matter in attitude towards elderly?
3. Does stakeholders have a role in the formulation of CSR-policies?
4. Does company’s size matter for codification?

**Aging Workforce**

Demographic changes around the world are expected in the next decades affecting societies, organizations and individuals (Börsch-Supan, 2003; v.d.Heijden et al., 2008). It is not just the aging workforce that organizations need to bear in mind. Add to that other demographic trends such as the falling birthrate in some European countries, there ought to be enough stimuli for organizations to recognise the need to capture and retain the knowledge and expertise (human capital) they currently have (Sterns & Miklos, 1995). Combining the capabilities of older and younger people will be an impelling challenge to all managers in all businesses in the future. Although the phenomenon of age diverse workforces is already apparent, this process will accelerate (Silverstein, 2008).

Shore et al. (2009) stated in their research review about age diversity that there seems to be a trend in organizations to accept age diversity such as, for example, older workers stay longer in their jobs. Although physical and mental changes due to aging are visible, and work ability and performance of older workers are expected to decrease, there are models and tools to compensate these weaknesses and to turn them into positive outcomes (Silverstein, 2008; Cennamo & Gardner, 2008; Gellert & Kuipers, 2008). Some model employers have recognized that older workers are a valuable source of talent, skills and knowledge. These organizations are implementing innovative
human resource policies to attract and retain older workers beyond standard retirement ages (AARP, 2008). Nevertheless, others, especially many small- and medium sized enterprises, do not see a strong business case yet for an aging workforce (OECD, 2008; Walker, 2006). Organizations that are selected for “best cases” companies, dealing with older workers ageing above 50, are likely to offer older workers flexible work arrangements, good benefits, ongoing training, good learning environment and meaningful work (AARP, 2008). Furthermore, employers need to stimulate employees in the second half of their work life spans by promoting challenge and intellectual stimulation as well as providing room for developing higher levels of cognitive and physical functioning (Avolio & Sosik, 1999; Peeters et al., 2005; Van Rockel-Kolkhuis Tanke, 2001). According to Peterson & Spiker (2005), organizations have to think about various incentive programs for older workers such as flexibility in human resource policies, attitude change and knowledge-transfer programs. On the other hand, older workers themselves need to continuously improve their abilities and work skills relevant to product/service quality and therefore on their performance and on the overall team or company performance.

Conceptual Framework

For this research we build on theoretical and empirical insights on aging workforces and CSR in SME’s. We try to detect if CSR is codified and what role stakeholders play in formulating CSR policies. For both questions, we also try to detect the influence of size. In this section we further develop a theoretical framework, leading to propositions. To be able to draw some conclusions, we try to relate organizational characteristics to the treatment of aging workforces and it’s relationship to CSR (see Figure 1).
Organizational characteristics (CSR)
Number of employees

Aging Workforce
All above 50
Production workers
Production workers > 50
Older workers support
Extern-intern support

Nature of the relationship?

CSR relations
Demographic change importance
Retention of older workers
Integration of older workers
Career perspectives for older workers
Recruitment

Stakeholder influence?

Figure 1: Conceptual Framework: The relationship of Organizational characteristics, aging workforces and CSR relations.

Organizational characteristics

Although employees are important for SME’s, there is little insight in the human resource policies of these group of companies (Bacon et al., 1996). More research has been done on aging workforces in organizations, independent of the size variable.

Recently, the literature on CSR in SME’s is growing. Much attention has been given to the relationship between age and performance (Rhodes, 1983) and between CSR and performance (Margolis & Walsh 2003). The outcomes of this last area of research, the relationship of CSR and performance is disappointing. Because the concept is weakly defined and the outcomes of the research seem to be incomparable, Margolis & Walsh (2003) advocate more descriptive research. What is really happening in the interaction between a company and society? Within this
research, the institutional context seems to be of growing importance (Campbell, 2007, De Graaf & Herkströter, 2007, Moon & Matten, 2008).

We assume that research on aging workforces offer relevant opportunities to further study the CSR-characteristics of companies such as SME’s. One of the most challenging aspects for organizations dealing with an aging workforce is to define an older worker and what that phenomenon implies in terms of team performance (Kearny, 2008). It has lead to a lot of research with sometimes promising, sometimes mixed outcomes (Streb & Voelpel, 2009). For each organization the aging of its employees sets different challenges and demands particular countermeasures (Streb, Hilbig, & Voelpel, 2009). Therefore, instead of providing broad age conceptualizations such as biological age or psychological age (De Lange et al., 2006; Kooij et al., 2008; Sterns & Miklos, 1995), we concentrate on the functional age concept only, as this can be directly linked to performance (Sterns & Doverspike, 1989).

Aging workforce

Research on physical labor, mental fitness, and the competitiveness and overall performance of an aging workforce (Streb, Voelpel, & Leibold, 2008) has produced controversial findings: While there is no evidence of a significant decline in overall cognitive performance (Beier & Ackerman, 2005), older workers are in practice often considered costly, less flexible, less adaptable to new technology, and less willing to cooperate and learn new skills (Schalk & Van Veldhoven et al., 2009; Streb & Voelpel, 2009; Walker, 2006).

Although there have already been multiple studies into the older workforce’s mental and physical abilities (e.g., Delgoulet & Marquie, 2002; Freudenthal, 2001; Reed, Doty, & May, 2005), our literature research indicates that there is a substantial gap in the research regarding an aging workforce’s direct association with CSR.

Moreover, stereotyping with regard to aging workers being low on personal initiative and pro-active behaviours is rife (Van Veldhoven & Dorenbosch, 2008; Warr & Fay, 2001). It is less well known that training, practice and experience can enhance the physical and mental capacities of older workers and, consequently, increase their performance, allowing them to outperform their younger colleagues (Silverstein, 2008). Most relevant work concerning that matter seems to be published in the field of occupational psychology. In the context of their own study about age and gender diversity as determinants of performance in public organizations Wegge et al. (2008) provide a focused overview about seminal studies in the field and emphasize the work of
Baltes (1997), Freund and Baltes (2002) and Kanfer and Ackerman (2004) who provide evidence about the potential for a process of selective optimization of age related weaknesses developing along the life span via compensation. These concepts refer mostly to inevitable age-related declines in fluid intelligence and adapted optimization of thinking and behavior of individuals. Studies on the group level are usually associated with the concepts of group age diversity and provide at best controversial results, although the general trend for group performance as the outcome variable is regarded to be negative (Wegge et al., 2008).

**Propositions: Implicit CSR, human resources and stakeholders**

Employees are a critical group of stakeholders of SME’s and therefore should have a critical role in CSR-research focussing on HRM-policies (Jenkins 2006; Lepoutre & Heene, 2006). However, authors suggest that HRM-policies of companies are difficult to study. SME’s lack strategic planning and therefore most often do not formulate an explicit HRM-strategy. This does not have to imply that SME’s do not have CSR-policies (Spence, 2007). We assume that SME’s have implicit CSR policies. Hereby we use Moon and Matten’s (2008) concept of implicit and explicit CSR. We adjust this understanding of CSR to SME’s. Where Moon & Matten (2008) use institutional, mainly national, differences as starting point of their framework, their categorisation could be used in SME-research also. This categorisation is in line with the suggestions of other authors who suggest that CSR is mainly implicit (e.g. Graafland et al., 2003), although they often do not offer emperical data to make that point. Thus we formulate our starting propositions as follows:

Proposition 1. Within SME’s, CSR-policies are not formalised

Proposition 2. When companies grow, more explicit CSR policies are formulated

The outcome of this last proposition could further shed light on size effect in CSR. The categorisation of Multinationals and SME’s is very rough. With testing this proposition, we get more detailed information about the various categories, from very small companies (< 5 employees) to middle seized companies (roughly between 50 and 200).
In the literature on CSR in SME’s, it is assumed that employees are even more important for small companies than for large companies (Jenkins, 2006; Mandl et al., 2007; Graafland et al., 2003; Spence, 2007). In this reasoning, governance characteristics are critical (Jenkins, 2006, Lepoutre & Heene, 2006). Given the ownership structure, which often means that the owner is a co-worker. Also the size and the role of personal contact in small companies seems to underpin this relationship. Because they can not compete on scale and price, informal relationships are critical for the success of many SME’s (Lepoutre & Heene, 2006; Spence, 2007). Mandl & Dorr (2007) report that application of a proactive employee strategy by European SME’s resulted in a decrease of employee turnover and absenteeism. This could implicate critical attention for SME’s on aging workforces. Herewith we address our next propositions:

Proposition 3. Stakeholders influence CSR-policies of companies

Proposition 4. The size of a company correlates with stakeholder’s influence on CSR relations

When employees’ engagement is important for SME’s, given their informal nature and close cooperation between owner and worker, it could also have implications for the type of company and work which arise the question: would there be a difference between white and blue collar workers? Therefore, we propose that:

Proposition 5. Bigger companies with production workers, being more dependent on physical conditions and white collar workers, will have more HR-related CSR policies

As becomes clear, we had to detect propositions out of a limited amount of literature. This explains the importance and the limitations of our study. Having reviewed the literature, there seems to be little research on the HR component in CSR of SME’s. This study explores the field empirically. The review explains the limitations also. Given limited insight, we had to work with very open formulated questions in the survey which means that the results of the tested relationships are limited to become generalized. For stronger academic reasoning, more solid constructs need to be developed.
Method

This study examines the relationship of aging workforces and CSR in 201 Dutch SME’s. The respondents are distributed over 64 (34%) micro businesses, 97 (52%) small businesses and 26 (14%) medium-sized businesses with a number of employees ranging from 1 to above 122. The businesses areas of those companies range from service providers to manufacturer and retail organizations.

Participants

Even though most companies were small businesses, the medium-sized organizations are the largest employers with a total of 2,567 employees whereas the small businesses employ 2,385 people. Micro enterprises appeared with only 339 employments in the field. In an attempt to examine the share of blue-collar workers, the survey shows that 113 out of the responding companies have production personnel, although only 34 businesses initially claimed being in the manufacturing industry. There are at least 2,314 workers employed or directly involved in production processes in these 113 firms. The additional employees referred to as production personnel in this research may as well be blue collar labor of other business areas. The overall number of people employed in the 201 organizations is 5,290. Out of these, 19.21% are above 50 (1016) in total and 26.97 % above 50 on the production lines. The respondents (201) consisted of 114 males and 86 females ranging in the occupation from general manager to team leader.

Instrument

A self-developed online questionnaire was randomly sent to managers, leaders and employees in Dutch organizations. The questionnaire contains 17 questions related to organizations’ demographics and CSR-related issues, for example: (1) “how many people above 50 work on the production line? (2) Do you think that older people are integrated in your organization?” Respondents gave answers and assessments on a 10 point scale ranging from 1 = completely disagree until 10 = completely agree. Space for individual comments was distributed over all questions and at the end of the questionnaire.
Analyses

Data are analyzed by Pearson correlation and hierarchical regression analysis entering the control variable gender in the first step, continuing with the predictor “number of employees” in step two and then testing the influence of the predictor on the dependent variables (CSR relations).

Results

The means, standard deviations and correlations are presented in Table 1. As we can see from the table the size of a company (number of employees) is strongly positive significant related to people above 50, production workers, production workers above 50 and to retention as well as to career perspectives for older employees.

This indicates various relationships. If the company is bigger, respondents seem to be more aware of the importance of the issue and answer that they consider workers above 50 as a target group for policies related to the size of the organization. Since SME’s characteristics are associated with the employment of CSR, the retention of older workers and the career perspectives are core issues for organizations. This might be explained by the fact that an aging workforce is considered as a critical construct that lead to high qualifications of employees complementing CSR practice. Referring to this, we can conclude that the level of organization’s treatment of older employees indicates the application of implicit CSR policy to address stakeholder’s issues seriously (Matten & Moon, 2008).

Insert Table 1 about here

Our propositions were tested by hierarchical regression analysis. The influence of the company size (number of employees) on aging workforce and CSR relations was tested. As we can see from Table 2 almost all size-categories of companies predict a strong association with people above 50. The highest variance (approximately 92%) was achieved in the category with 93-121 employees and therefore, these results support our underlying assumption that bigger organizations have a stronger sensitivity to older employees and perceive them as a proxy for CSR more intensively than smaller organizations do.

The size effect on the attention of companies for a specific CSR topic could shed light on what Matten & Moon (2008) call the explicit CSR. Are bigger companies more active, or are they able to make CSR policies more explicit?
When we further look at the data, the outcomes suggest the bigger companies are better in making CSR policies more explicit. Surprisingly, if it comes to production workers above 50, only the category of organizations with less than 5 employees achieved a variance of 20% that they take care of their older work force. Only the small companies really seem to do substantial things for elderly employees.

Regarding the appearance of a relevant CSR policy in organizations and whether the policy is explicit or implicit we could not find statistical relevance. As we can see from Table 2 there is some influence of company’s size on policies available in organizations but not that much strong. Therefore, our first, and second proposition that in SME’s CSR policies are not formalized and more implicit than explicit, is confirmed. In contrast, our fifth proposition that bigger companies with production workers have more CSR policies is not confirmed.

The company size as a predictor for CSR relations achieved statistically significant variance (approximately 17%) for retention of older workers in the size category in which 35-63 people are employed. For the integration of older workers the variance achieved 27% for companies in the category with less than 5 people employed. Interestingly, this is a relevant finding because it seems that small companies (less than 63 employees) handle the retention and integration of older employees more carefully than bigger companies do. That indicates that the influence of stakeholders on organization’s CSR policy is more present in smaller companies than in companies with more than 63 employees.

For the rest of the size categories we found no statistically relevant relationships between the number of people employed and CSR relations. From that we can conclude that in SME’s with less than 63 employees the relationship among workers lead to more intimacy and a higher quality level of the relationship (Hogg, 2001). Our third and fourth proposition that stakeholders influence CSR relations and that the size of the company correlates with stakeholder’s influence.
Conclusions

The present study was designed to examine the relationship between SME’s CSR policies and its association with aging workforces as company’s proxy. Our findings suggest that in general all companies are very sensitive with regard to the aging workforce phenomenon.

Our results suggest that middle seized organizations seem to stronger associate an aging workforce with CSR than small companies, but that smaller companies do more. The implicit un-codified character of CSR in SME’s was partly confirmed since smaller companies were less ambitious, but more active in practice. Referring to implicit or explicit CSR policies (Matten & Moon, 2008) we could not find statistically significant relationships with the size of a company.

Summarizing, we can say that bigger companies state more often that aging is important, but they do not have more policies on aging. The smallest companies seem to be most active in this respect. Bigger companies also are more aware of stakeholder influence, where small companies hardly seem to be aware of stakeholder influence, or are unfamiliar with the question on this terrain (the role of outside pressure).

We have done an exploratory study, which has important limitations. As have been mentioned before, we detected propositions out of a limited amount of literature and developed a small and very straight forward survey based on these insights. The value of this approach is, to further develop both the existing research concepts and explore research paths. We think that employer – employees relationships should get more attention in CSR research.

We would like to draw some extra attention to one outcome. The results suggest that very small companies (< 5) are more attached to their workers. Also, this result questions the institutional context. Within the Netherlands employers are partly responsible for the health of their employees. If they are no longer able to work, the employer has to pay part of the costs. This could make small companies more carefull because one worker that is ill for a long time can really be a burden.

Furthermore, our results suggest also some practical implications. Individuals, working together for a long time, develop a strong relationship that enables them to lower the power distance and to develop high quality level of social exchanges (Graen, 2003). This might be a critical determinant in CSR-related issues. Long term social ties seem to impact CSR importantly. This sheds another light on the company size discussion in CSR-literature.

For further empirical research, we would also like to suggest the use of more and more complex ‘CSR-proxies’. We think it enables us to get a more empirical and descriptive insight in how
companies and stakeholders interact and how they deal with the social responsibilities that appear in these relationships.
Table 1: Mean, Standard Deviation and Correlations

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Gender</th>
<th>Number of employees</th>
<th>All people above 50</th>
<th>Production workers</th>
<th>Older workers support</th>
<th>Extern-intern support</th>
<th>Demographic change importance</th>
<th>Retention of older workers</th>
<th>Integration of older workers</th>
<th>Career perspectives of older workers</th>
<th>Recruitment of older people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.43</td>
<td>.496</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of employees</td>
<td>29.02</td>
<td>36.63</td>
<td>.042</td>
<td>-</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All people above 50</td>
<td>5.85</td>
<td>11.41</td>
<td>.055</td>
<td>.671**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Production workers</td>
<td>13.45</td>
<td>23.15</td>
<td>-.023</td>
<td>.772**</td>
<td>.543**</td>
<td>-</td>
<td></td>
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<td></td>
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<tr>
<td>Production workers above 50</td>
<td>5.28</td>
<td>14.50</td>
<td>-.021</td>
<td>.237**</td>
<td>.342**</td>
<td>.238**</td>
<td>-</td>
<td></td>
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<tr>
<td>Older workers support</td>
<td>1.92</td>
<td>.271</td>
<td>-.164*</td>
<td>-.127</td>
<td>-.112</td>
<td>-.029</td>
<td>-.028</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>Extern-intern</td>
<td>1.46</td>
<td>.519</td>
<td>-.220</td>
<td>.315</td>
<td>-.049</td>
<td>.144</td>
<td>.217</td>
<td>.033</td>
<td>-</td>
<td></td>
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<tr>
<td>support</td>
<td>Correlation</td>
<td>Demographic change importance</td>
<td>3.87</td>
<td>2.93</td>
<td>.006</td>
<td>.069</td>
<td>.130</td>
<td>.103</td>
<td>.190*</td>
<td>-.092</td>
<td>.662**</td>
<td>-</td>
<td></td>
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<td>Retention of older workers</td>
<td>1.10</td>
<td>.296</td>
<td>-.104</td>
<td>.159*</td>
<td>.088</td>
<td>.273**</td>
<td>.126</td>
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<td>.076</td>
<td>.273**</td>
<td>-</td>
<td></td>
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<tr>
<td>Integration of older workers</td>
<td>8.61</td>
<td>2.53</td>
<td>.022</td>
<td>.088</td>
<td>.007</td>
<td>.034</td>
<td>.010</td>
<td>.007</td>
<td>.297</td>
<td>-.117</td>
<td>.040</td>
<td>-</td>
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<tr>
<td>Career perspectives of older workers</td>
<td>1.03</td>
<td>.173</td>
<td>.036</td>
<td>.354**</td>
<td>.172*</td>
<td>.553**</td>
<td>.313**</td>
<td>-.249**</td>
<td>.529*</td>
<td>.144</td>
<td>.386**</td>
<td>.041</td>
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<td>Recruitment of older people</td>
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<td>.436</td>
<td>-.005</td>
<td>-.017</td>
<td>-.006</td>
<td>-.107</td>
<td>-.072</td>
<td>.097</td>
<td>-.120</td>
<td>.001</td>
<td>-.047</td>
<td>.060</td>
<td>-.172*</td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (1-tailed).
** Correlation is significant at the 0.01 level (1-tailed).
Table 2: Regression of company size (number of employees) on aging workforce

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>All people above 50</th>
<th>Production workers</th>
<th>Production workers above 50</th>
<th>Policy for older workers</th>
<th>Explicit-implicit policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predictor</td>
<td>β</td>
<td>R²</td>
<td>β</td>
<td>R²</td>
<td>β</td>
</tr>
<tr>
<td><strong>Number of employees</strong></td>
<td></td>
<td></td>
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<tr>
<td>&lt;=5</td>
<td>.540**</td>
<td>.292</td>
<td>.315†</td>
<td>.099</td>
<td>.449†</td>
</tr>
<tr>
<td>6-34</td>
<td>.548**</td>
<td>.300</td>
<td>.406**</td>
<td>.165</td>
<td>-.062</td>
</tr>
<tr>
<td>35-63</td>
<td>.331†</td>
<td>.109</td>
<td>.215</td>
<td>.046</td>
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<tr>
<td>64-92</td>
<td>.823</td>
<td>.677</td>
<td>-.001</td>
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<tr>
<td>93-121</td>
<td>.957*</td>
<td>.916</td>
<td>-.116</td>
<td>.014</td>
<td>.277</td>
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<tr>
<td>122+</td>
<td>.213</td>
<td>.045</td>
<td>-.043</td>
<td>.002</td>
<td>.523</td>
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</tbody>
</table>

Significance: **p=<0.01; *p=<0.05; †p=<0.10
Table 3: Regression of company size (number of employees) on CSR relations

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Demographic change importance</th>
<th>Retention of older workers</th>
<th>Integration of older workers</th>
<th>Career perspectives of older workers</th>
<th>Recruitment of older workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;=5</td>
<td>.250</td>
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<td>.000</td>
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<td>-.263</td>
</tr>
<tr>
<td>6-34</td>
<td>.088</td>
<td>.081</td>
<td>.142</td>
<td>.000</td>
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<tr>
<td>35-63</td>
<td>.175</td>
<td>.407*</td>
<td>.130</td>
<td>.202</td>
<td>.073</td>
</tr>
<tr>
<td>64-92</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>93-121</td>
<td>1.000</td>
<td>1.000</td>
<td>.500</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>122+</td>
<td>.603</td>
<td>.258</td>
<td>-.354</td>
<td>.258</td>
<td>-.200</td>
</tr>
</tbody>
</table>

Significance: **p=<0.01; *p=<0.05

Please note: data with 1.000 have statistically no relevance due to insufficient responses
References


WS1.1-3. Abstract:

‘CSR and the Working Environment in Small Enterprises: A beautiful friendship?’
by Bryan Cleal, Ph.D., Senior researcher, National Research Centre for the Working Environment, Copenhagen, Denmark
Anne Roepstorff, Ph.D., Assistant Professor, Copenhagen Business School, Copenhagen, Denmark
Pernille Hohnen, Senior researcher, National Research Centre for the Working Environment, Copenhagen, Denmark

The potential benefits of Corporate Social Responsibility (CSR), applied to the viability of small and medium sized enterprises (SME), have gained credence in recent years. Previously, CSR was deemed irrelevant to SME’s. What has become apparent, however, is that SME’s do engage in activities classifiable as CSR. Often, though, these activities and their potential benefits are not implemented or evaluated in a systematic way, so much remains unknown or unarticulated. There is, therefore, much that can be learnt from the way in which SME’s work (implicitly and explicitly) with CSR. Consequently the work presented here represents an attempt to produce more systematic and transferable knowledge about CSR activities in SME’s.

The methodological framework for the work reported here is the case-study. The identification and selection of cases was based on the best practice principle. This choice is necessary, since it is in the exemplary cases that we aim to identify a basis for extrapolation. The material on which this work is based draws on eight different small and medium sized enterprises, representing different occupational branches and distinct CSR initiatives.

Analysis of the cases will focus on the impact that CSR activities have on the working environment. This focus is important, allowing insight into the broader ramifications of CSR in SME’s. CSR can, then, be set in relief against regulative approaches to work environment. CSR may, first and foremost, supplement regulation, but voluntary initiatives could achieve better results and in the absence of the administrative burden that regulation requires. Another issue is the way employees experience CSR and what impact this has on their relationship to work/the workplace. Considering the relationship between CSR and SME’s in a work environment perspective is, therefore, a reliable means to identify systematic and transferable knowledge demonstrating how CSR can contribute to making SMV’s more viable.
Presentations, session WS1.2:
Chair: Laura Spence (with Mette Morsing)

Time: Thursday 22 October, 17.15-18.45
Location: Conference hall
WS1.2-1. Abstract:

‘Drivers and Brakes for Corporate Responsibility. A comparison of German and French SME’

by Julia Roloff, Dr. rer. pol., Assistant Professor, ESC Rennes School of Business, Management and Organisation, Rennes, France
Sarah Hudson, PhD, Assistant Professor, ESC Rennes School of Business, Management and Organisation, France
Simone Klein, Dipl.-Hdl., Katholische Universität Eichstätt, Department of International Management, Ingolstadt, Germany
Kristin Vorbohle, Master of Arts in European Studies, Institut für werteorientierte Unternehmensführung, Frankfurt am Main, Germany

In the literature on small and medium-sized enterprises (SMEs) it is often assumed that they approach their corporate social responsibility (CSR) in different ways and partly for other reasons than large corporations. In order to investigate this question, two qualitative studies were conducted in Germany and in France comparing the reasons for and the focus of the CSR activities of SMEs. The analysis identifies which internal and external factors support and hinder SME managers in their engagement. By comparing samples from two different countries, some preliminary conclusions can be drawn whether the influence found is a result of the company’s size or of its immediate environment.

For the German study, data were collected in Hamburg in two steps. In a first phase, 11 experts in the field of CSR or SMEs were interviewed. Afterwards, 33 semi-structured interviews were conducted with owners of SME. For the French study, 72 semi-structured interviews were done with owners and managers of SME in the region Brittany. The data collection for both studies took place in 2007.

The comparison yielded some similarities and differences between the two countries. In both samples, the individual conviction of the owner or CEO was a major driver for or against implementing CSR activities in the firm. Time, financial and organization constraints were mentioned both by French respondents and German experts as barriers. Differences were found concerning the focus of activities. German respondents spoke more about their social engagement and in particular how they care for their employees. French respondents focused more often on improving the environmental performance of the firm. It seems that in both countries those aspects are emphasized that are portrait as problematic in public discourse. In contrast, aspects that are already subject to more sophisticated regulation are less often perceived as belonging in the realm of CSR.
Drivers and Brakes for Corporate Responsibility

A Comparison of German and French SME

Authors:

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Abstract

The experts at the European Multistakeholder Forum on CSR identified in 2004 a number of drivers, obstacles and success factors for SMEs implementing CSR. In the following years a variety of empirical studies was conducted investigating the CSR engagement of SMEs. In this article we present two qualitative studies analysing which drivers and brakes are narrated by German and French SME owners, managers and experts in the field. We compare our results with the outcome of quantitative studies from the two countries. Overall, we found that the conviction of the director is a decisive factor concerning the question whether and how the firm engages in CSR. Financial and time constraints are the most important obstacles. National differences influence to some extent what kind of CSR activities is chosen. SMEs tend to engage in activities which are not yet regulated by the state, but subject to public scrutiny and discussion. We conclude that distinguishing drivers and brakes for CSR
engagement at individual, organizational and macro level as a frame of analysis allows to gain useful insights and to develop recommendations for institutions which support SMEs in this endeavour.

**Key Words**
Corporate social responsibility, CSR, SME, Germany, France, qualitative study
Drivers and Brakes for Corporate Responsibility
A comparison of German and French SMEs

Introduction
The importance of small and medium-sized enterprises (SMEs) for the economy cannot be underestimated. The European Commission (2008, p. 7) cites Eurostat with the following data: 99.8 percent of all European businesses are SMEs representing 67.1 percent of employment in the private sector. Thus, it is not surprising that governments as well as the European Union (EU) try to encourage responsible business practices not only in large corporations, but also in smaller ones. However, although the notion is widespread that SMEs approach their corporate social responsibility (CSR) differently from larger companies (Spence, 2007), no clear picture of how SMEs engage in CSR has emerged nor do we know for certain the reasons why SMEs go for or refrain from CSR. The European Multistakeholder Forum on CSR (2004) emphasizes that the scale and impact of CSR among SMEs has not been sufficiently investigated despite the fact that SMEs have developed good practices and innovative solutions. It is also observed that “it can be even more dangerous to make generalizations about SMEs than about larger businesses when it comes to motivation, performance, success strategies etc and CSR” (European Multistakeholder Forum on CSR, 2004, p. 6). In order to learn more about how and why SMEs approach CSR a number of empirical studies were conducted between 2006 and 2007 which are compared in this article investigating in particular what drives and what hinders their CSR engagement.

The experts at the round table of the European Multistakeholder Forum on CSR (2004) identify a number of drivers, obstacles and success factors for SMEs to implement CSR. Among the drivers they distinguish on the one hand internal aspects such as people issues, health and safety and environmental pressures, aspects of branding including the maintenance of a positive reputation and on the other, external pressures resulting for example from legislation. As main obstacles they identify actual and assumed costs of CSR activities, a lack of awareness how CSR can benefit the business, conflicting time and resource pressures, a lack of know-how and know-who and a reluctance to seek external help. They believe that success factors are commitment of the owner, enthusiastic engagement of employees, a staged approach towards CSR to ensure results, the integration of CSR into management and operational practices, networking opportunities and examples of good practice as a guidance. This analysis reflects the aggregated knowledge of
representatives of trade unions, associations, chambers of commerce, academia, NGO and supranational organizations which all work both with SMEs and on CSR issues. A quantitative study was commissioned by the European Commission that compared SMEs from France, Germany and Poland and investigated the presence of certain motives for and obstacles to CSR engagement (Gilde, 2007b).

In contrast to the quantitative approach employed by many studies, we conducted two qualitative studies in Germany and in France on the subject using semi-structured interviews. In this article we compare the results from the surveys with the pattern which emerges when managers of SMEs are free to narrate their experiences with CSR and their reasons for or against committing to it. The advantage of conducting semi-structured interviews which encourage narrations in contrast to structured interviews with predefined answers is that experiences and convictions can be documented in their diversity. The respondents are not forced to stick to a certain pattern of answers, but can express their views without restrictions. Their answers were subjected to a content analysis in which we identify, first, what the respondents refer to when they speak about responsible management and sustainability, second, what kind of CSR activities their companies engage in and, finally, what factors they describe as helping or hindering CSR. For the analysis of the latter aspect we compare drivers and brakes rather than distinguishing drivers, obstacles and success factors as it is done by the European Multistakeholder Forum on CSR (2004). The reason for this simplification is that we are not convinced that we can differentiate with certainty which factors drive CSR engagement and which are essential for its success. For example, an owner who is committed to CSR is one of the success factors named by the experts. However, the commitment of the owner could also be the initial driver for engaging in CSR.

Our argumentation is structured as follows: After a short summary on the literature on SME engagement for CSR, we give an overview of empirical studies conducted on SMEs’ CSR engagement in Germany and France summarizing the major results from the surveys. Afterwards we describe our studies in Germany and France and analyse the results regarding understanding of CSR, range of activities and identified drivers and brakes in the context of each country’s specifics and compare our results with other studies conducted in the country. Finally, we discuss to what extent our results support or differ from the analysis provided by the European Multistakeholder Forum on CSR (2004) and others, reflect on the practical implications of our results for institutions
which support SMEs to engage in CSR activities and evaluate the utility of our framework for analysing drivers and brakes.

**Do SMEs engage in CSR in a specific manner?**

In the literature on small and medium-sized enterprises (SMEs) it is often assumed that they approach corporate social responsibility (CSR) in different ways and partly for other reasons than large corporations. In her overview on research regarding this issue, Laura S. Spence (2007) distinguishes seven characteristics of SMEs that differentiate them from larger corporations. First, they tend not to codify their CSR approaches; e.g. they do not have a code of conduct or an ethics officer. Second, they tend to approach CSR because of personal convictions and are less likely to see it as a strategic approach or a public relations tool. Third, in many SMEs the ultimate responsibility lies with the owner-manager. In contrast to managers of shareholder-owned corporations, the owner-manager is not obliged to concentrate on making profit, but is free to decide how to make and spend the money earned by the company. Fourth, SMEs are believed to be more embedded in local communities than larger corporations implying a “moral proximity with community and customers” (Spence, 2007, p. 537). Fifth, SMEs are less likely to focus on low prices for gaining and retaining customers, since they have a disadvantage in terms of scale. Their unique selling proposition is more often defined through flexibility and personal service which leads to a more personal relationship with customers. Sixth, employees tend to be very important stakeholders in SMEs, in particular, in the case of family-run businesses. Finally, SMEs tend to develop CSR approaches that reflect the needs of their immediate environment and that relates to their business activity. The above named characteristics were documented in research conducted mainly in European countries such as Great Britain (e.g. Spence, 2000; Jenkins, 2006), Germany (Spence & Schmidpeter, 2003), the Netherlands (Spence, Jeurissen & Rutherfoord, 2000), Spain (Murillio & Lozano, 2006) and Italy (Tencati, Perrini & Pogutz, 2004), although not in a consistent manner.

Studies conducted outside of Europe echo at least some of the results. For example, Jamali and Zanhour (2008) document that managers of Lebanese SMEs are strongly motivated by personal (religious) conviction and named customers and employees as their key stakeholders. However, they are less likely to integrate CSR in their business strategy and favour philanthropy over other CSR practices. An emphasis on personal religious convictions and the welfare of employees was
also found in a study covering eight Latin American countries (Vives, 2006). However, the assumption that the major differences can be found between SMEs and larger corporations is not supported in all studies. Russo and Tencati (2009) found more profound differences between the CSR practices of micro firms with less than 10 employees compared to small firms than between small, medium-sized and large firms. Analysing data from 3626 Italian firms, they concluded that the smaller the company is the lower is its degree of formalization of the engagement.

We can conclude that although there are some general differences concerning how and why smaller and larger companies engage in CSR, the diversity found among SMEs makes it not only difficult to describe them in a coherent manner, but might render any uniform description useless, since it can lead to misleading conclusions. Reflecting on this, we have to ask ourselves the question as to whether managers of SMEs operating in different countries and industries might experience similar drivers and brakes for CSR engagement or whether these factors exhibit the same diversity found in the form of and motivation for the engagement.

Engaging in CSR: SMEs in France and Germany

Studying the CSR engagement of SMEs was encouraged by the European Union which led to a number of studies which were mainly conducted between 2006 and 2007. In the following we compare key results from studies done in Germany and France.

Overview on empirical evidence from Germany

As in other European countries, SMEs make an important contribution to the German economy. They represent 99% of the German companies and employ about 71 percent of the working population. Furthermore, SMEs educate about 83 percent of all trainees (Wallau, 2005). Considering that a large part of Germans receive their professional education in the so-called dual system, in which students alternate between company and professional school, the implications of SMEs training the country’s professionals cannot be overestimated. A number of studies have been conducted on the extent of CSR activities among German SMEs. For example the German society for social research and statistics forsa conducted a study referring to a random sample of 1000 German managers which shows that one third of the company owners are involved in voluntary local activities (forsa, 2005). Furthermore, the size of the community was found to have an influence on the number business engaged in CSR. 80 percent of businesses located in communities
with less than 10,000 inhabitants engage in CSR while only 72 percent of companies situated in Germany’s cities with more than 500,000 inhabitants declare to do so. A study conducted by the Verein Arbeitsgemeinschaft selbständiger Unternehmer (ASU), an association of entrepreneurs, gives some insights why its members engage in CSR: personal motivation and their company’s reputation where the two most important motives cited by entrepreneurs (ASU, 2007).

The two foundations Bertelsmann Stiftung and Stiftung Familienunternehmen conducted a joined study on the so-called “German Mittelstand” compromising family-owned SMEs with more than 250 employees and a turnover of 50 million Euros or more. Like other SME managers, this group was driven by personal motivation and conviction when engaging in CSR; external forces pushing in this direction were not required. The German Mittelstand focuses its engagement on the company and its employees, but also financially supports external projects, preferably in the field of education (Bertelmann Stiftung & Stiftung Familienunternehmen, 2007). A study among 142 SMEs with up to 500 employees in Berlin showed that in 90 percent of the cases the owner or the managing director coordinates and influences the manner and extent of CSR engagement (Bader, Bauernfeind & Giese, 2007). However, despite their strong engagement in different local activities only 56 percent of the respondents communicate their engagement. Donations and sponsoring of local associations or institutions was the most frequent CSR activity mentioned.

Twice a year the industrial association Bundesverband der Deutschen Industrie e.V. (BDI) produces a survey on the situation of German SMEs. While some core items reflecting the economic situation remain the same each time, other questions vary. In spring 2007, almost 1100 representatives from German SMEs answered questions regarding their firm’s CSR engagement (Institut für Mittelstandsfororschung, 2007). A majority of 77 percent agreed that companies should voluntarily address ecological and societal issues. Representatives from successful firms expressed this view more frequently (89 percent) than those representing less successful businesses (55 percent). 99 percent of the companies addressed their employees’ needs with their current CSR activities, 88 percent addressed societal issues, 64 percent ecological concerns and 56 percent addressed the needs of either their suppliers or clients. Interestingly, representatives of successful companies stressed the importance of economic benefits resulting from their CSR engagement more often; with 49 percent indicating that this is either important or very important. In contrast, only 33
percent of the representatives from less successful companies expressed the same position (Institut für Mittelstandsforschung, 2007).

Consistent with the findings described above, a study conducted among 120 Catholic entrepreneurs working in SMEs or being self-employed asked them to evaluate their stakeholders: importance (Hammann, Habisch & Pechlander, 2009). Employees were found to be the most important stakeholder followed by costumers, society, partners, environment, shareholders, politics, suppliers and competitors in this order. Regarding their evaluation of the shareholders’ importance SMEs differ significantly from responses found among large enterprises where investors are usually named stakeholder number one (Pleon Kohtes Klewes: 2004).

**Overview on empirical evidence from France**

In France the awareness of the importance of sustainable development has been growing visibly in recent years. As a result both national and local organisations and institutions are increasing their efforts to inform and aid SMEs at a regional level to engage in social and environmental actions. For example the DRIRE, Comité 21, IMS-Entreprendre pour la cité, Orée, ORSE, and the local chambers of commerce are all playing a role in helping SMEs to inform themselves and implement CSR, and numerous local initiatives all over France are being taken to promote social and environmental responsibility in the business communities. Despite the growing interest, only seven empirical studies studying CSR in French SMEs have been published on the subject (ACFCI, 2006; Berger-Douce, 2008; Crocis-CCIP, 2007; Dupuis et al., 2006; Fray & Soparnot, 2007; Simon & Basset, 2007; LAB RII – ULCO, 2007), mostly focussing at a regional level. The French chamber of commerce and a related research centre published two studies focussing on the region around Paris (ACFCI, 2006; Crocis-CCIP, 2007). Both studies pointed out that SMEs tend to approach CSR in a pragmatic manner. A third study focuses on CSR in the social sector such as organisations working with handicapped people (Fray & Soparnot, 2007). The only nation-wide study undertaken focused on environmental actions of SMEs such as environmental protection and energy reduction (Simon & Basset, 2007). A more comprehensive approach was taken by two surveys that were conducted in 2006 using the same questionnaire (Berger-Douce, 2008; Dupuis et al., 2006). One was regional, focussing on companies in Rhône-Alpes (Dupuis et al., 2006) while the second study addressed the 200 most profitable SMEs in France (Berger-Douce, 2008). Despite these differences,
both studies arrived at very similar results indicating that French SMEs might be more homogeneous than assumed when it comes to their CSR practices (see table 1).

Table 1: Comparison of the studies of Dupuis et al. (2006) and Berger-Douce (2008)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>214 companies in Rhône-Alpes representing SMEs of different sizes</td>
<td>138 of France’s 200 most profitable SMEs</td>
</tr>
<tr>
<td>Data collection</td>
<td>Structured interviews per telephone in 2006</td>
<td>Structured interviews per telephone in 2006</td>
</tr>
<tr>
<td>Attitude towards and knowledge of CSR (percentage of affirming responses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers consider CSR in their actions</td>
<td>92 percent</td>
<td>88 percent</td>
</tr>
<tr>
<td>Managers know CSR standards</td>
<td>23 percent</td>
<td>23 percent</td>
</tr>
<tr>
<td>Managers know organisations promoting CSR</td>
<td>29 percent</td>
<td>28 percent</td>
</tr>
<tr>
<td>Reasons for engaging in CSR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal conviction of the owner/CEO</td>
<td>69 percent</td>
<td>61 percent</td>
</tr>
<tr>
<td>Anticipation of new legislation</td>
<td>40 percent</td>
<td>30 percent</td>
</tr>
<tr>
<td>Reputation</td>
<td>47 percent</td>
<td>21 percent</td>
</tr>
<tr>
<td>Pressure from banks</td>
<td>7 percent</td>
<td>11 percent</td>
</tr>
<tr>
<td>Cost reduction</td>
<td>31 percent</td>
<td>10 percent</td>
</tr>
<tr>
<td>Pressure from civil society</td>
<td>22 percent</td>
<td>1 percent</td>
</tr>
<tr>
<td>Differentiation from competitors</td>
<td>22 percent</td>
<td>1 percent</td>
</tr>
<tr>
<td>Obstacles for CSR engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of time</td>
<td>56 percent</td>
<td>52 percent</td>
</tr>
<tr>
<td>Focus on economic survival</td>
<td>63 percent</td>
<td>21 percent</td>
</tr>
<tr>
<td>No advantage expected from CSR engagement</td>
<td>5 percent</td>
<td>11 percent</td>
</tr>
<tr>
<td>Not relevant for the firm’s activities</td>
<td>15 percent</td>
<td>7 percent</td>
</tr>
<tr>
<td>Lack of public support</td>
<td>13 percent</td>
<td>4 percent</td>
</tr>
</tbody>
</table>

Although the majority of respondents of the two studies (Berger-Douce, 2008; Dupuis et al., 2006) claims to consider CSR in its actions, their answers also indicate that few managers are familiar with CSR instruments or with organizations that support CSR initiatives. The two samples showed some differences concerning the major motivations for engaging in CSR. The personal conviction of the company’s owner or CEO ranked highest in both studies. Ranked in place two and three – but in changing order – were anticipated changes of laws and regulations and the assumption that CSR
activities enhance the firm’s public image. Other reasons were pressure from banks, cost reduction, pressure from civil society and the wish to distinguish the firm from competitors. When asked what factors inhibit their CSR engagement the majority blames a lack of time. However, the less profitable SMEs ranked economic survival as the firm’s priority even higher. Other reasons for refraining from CSR activities were that they generated no profits, the lack of relevance for the firm’s activities and the lack of public support.

Survey comparing Germany and France
On the account of the European Commission a comparative study was conducted comparing Germany (Gilde, 2007a), France (LAB RII – ULCO, 2007) and Poland (Gilde, Detmold and Incubator of Enterprise, Ruda Slaska, 2007). Reflecting on the analysis of European Multistakeholder Forum on CSR (2004) the questionnaire covered among other points the obstacles that SMEs face when implementing CSR and what the reasons are for implementation. Table 2 summarizes the responses found in the three studies.
Table 2: Comparison of obstacles to and reasons for CSR engagement in France, Germany and Poland; the three most frequently cited obstacles and reasons are highlighted (sources: Gilde, 2007b; LAB RII – ULCO, 2007; Gilde, 2007a; Gilde, Detmold and Incubator of Enterprise, Ruda Slaska, 2007)

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>81 companies with 50 to 249 employees in Nord Pas Calais</td>
<td>145 companies with up to 500 employees in all parts of Germany</td>
<td>28 companies with up to 500 employees</td>
</tr>
<tr>
<td>Data collection</td>
<td>Structured interviews per telephone, December 2006 to February 2007</td>
<td>Online-questionnaire, October-December 2006</td>
<td>Structured interviews per telephone (no date indicated)</td>
</tr>
</tbody>
</table>

**Obstacles for CSR engagement**

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of human resources</td>
<td>35 percent</td>
<td>65 percent</td>
<td>32 percent</td>
</tr>
<tr>
<td>Insufficient know-how about CSR application</td>
<td>49 percent</td>
<td>62 percent</td>
<td>82 percent</td>
</tr>
<tr>
<td>Lack of financial resources</td>
<td>43 percent</td>
<td>54 percent</td>
<td>64 percent</td>
</tr>
<tr>
<td>Lack of interest from partners</td>
<td>24 percent</td>
<td>42 percent</td>
<td>46 percent</td>
</tr>
<tr>
<td>Lack of interest from customers</td>
<td>27 percent</td>
<td>42 percent</td>
<td>32 percent</td>
</tr>
<tr>
<td>Lack of interest from employees</td>
<td>28 percent</td>
<td>27 percent</td>
<td>61 percent</td>
</tr>
<tr>
<td>CSR is not economical profitable</td>
<td>22 Percent</td>
<td>22 Percent</td>
<td>11 Percent</td>
</tr>
</tbody>
</table>

**Reasons for introducing CSR**

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>Germany</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation</td>
<td>79 percent</td>
<td>86 percent</td>
<td>96 percent</td>
</tr>
<tr>
<td>Motivating employees</td>
<td>63 percent</td>
<td>72 percent</td>
<td>93 percent</td>
</tr>
<tr>
<td>Recruitment of new employees</td>
<td>33 percent</td>
<td>61 percent</td>
<td>68 percent</td>
</tr>
<tr>
<td>Developing the company strategy</td>
<td>61 percent</td>
<td>57 percent</td>
<td>69 percent</td>
</tr>
<tr>
<td>Requirements of customers</td>
<td>63 percent</td>
<td>47 percent</td>
<td>68 percent</td>
</tr>
<tr>
<td>Diversification</td>
<td>39 percent</td>
<td>47 percent</td>
<td>63 percent</td>
</tr>
<tr>
<td>Requirements of civil society</td>
<td>56 percent</td>
<td>43 percent</td>
<td>46 percent</td>
</tr>
<tr>
<td>Cost reduction</td>
<td>51 percent</td>
<td>42 percent</td>
<td>57 percent</td>
</tr>
<tr>
<td>Political requirements</td>
<td>67 percent</td>
<td>40 percent</td>
<td>39 percent</td>
</tr>
<tr>
<td>Requirements of financial backers</td>
<td>28 percent</td>
<td>28 percent</td>
<td>36 percent</td>
</tr>
</tbody>
</table>
The main obstacles faced by companies in all three countries were insufficient financial and human resources as well as a lack of know-how. The wish to improve the firm’s reputations was a major driver everywhere as was motivating the employees. However, in France meeting political requirements ranked even higher while this factor had less impact in the other countries. This difference reflects the high importance of France central government in driving and shaping responses to social and environmental problems.

All questions answered?
The studies summarized above already offer a richness of data on why and how SMEs get engaged in CSR. However, being quantitative in nature, there is the possibility that certain aspects have been overlooked when the questionnaires and standardized interview guidelines were designed. In order to gain a broad picture on the question as to what drivers and brakes SMEs encounter when engaging in CSR, two studies employing semi-structured interviews are described in the following. The first was done in Germany’s second largest city, Hamburg, and compares experts’ perceptions with the experience of SME managers. The second study was conducted in the region of Brittany, France. Here, the responses of managers who are not (yet) engaged in CSR are compared to those with CSR experience. The concept of CSR was defined widely in both studies. The term itself was not employed, but substituted with a term more commonly used by the target group. Accordingly, German managers were encouraged to talk about societal responsibility (gesellschaftliche Verantwortung) and French managers were asked about sustainable development (développement durable). In order to assure that we talk about the same issues, the respondents were asked what they understand under the terms. In the following the methodology and results of the two studies are described.

The quest for corporate responsible: SMEs in Hamburg, Germany

Methodology and sampling
Existing literature distinguishes several definitions of SMEs. In Germany, many family owned businesses are larger than the average SME elsewhere (Hauser & Wolter, 2007). Thus, companies with up to 500 employees are often still referred to as SMEs (Günterberg & Wolter, 2002) although the European Commission (2003) draws the line at 250 employees. Following the EU definition, only companies with less than 250 employees and less than 50 million annual turnover (or 43
million annual balance sheet total) were considered in this study. In addition, the criterion of autonomy of SMEs is applied, i.e. none of the interviewed owners holds 25 percent or more of the capital or voting rights in one or more other enterprises nor has any outsider a stake of 25 percent or more of the capital or voting rights in the enterprise (European Commission, 2003).

At the time of data collection, few studies on the attitude of German SME managers towards CSR were published. Thus, the research had exploratory character and a qualitative two-stage design was chosen (Flick, Kardoff & Steinke, 2007; Bogner & Menz, 2005; Meuser & Nagel 2005). During the first stage of the study, 11 interviews were conducted with experts in the field of CSR and SMEs, i.e. academics, consultants, chambers and labour unions. Reflecting on their responses a semi-structured interview guideline addressing owners of SMEs was developed. An advantage of semi-structured interviews is that the interviewer can make adjustments to the sequence and wording of questions allowing a more natural dialog between interviewer and respondent. Since the same subjects are covered in all interviews, the responses remain comparable. During the second stage of the study, 157 companies were addressed via mail or telephone calls asking for the permission to interview either the owner or a manager of the SME. 23 percent gave a positive responds and 36 semi-structured interviews were carried out. However, three interviews had to be excluded because the firms were not autonomous in the manner defined above. Accordingly, the final sample consists of 33 interviews.

**The concept of CSR interpreted by managers of German SME**

When asked to describe their responsibility, the owners of SMEs spoke foremost about their responsibility towards their employees. They identify employees as key stakeholders and emphasize the importance of ensuring social security, for example, by securing employment and by offering working conditions allowing a work-life balance (Klein & Vorbohle, 2008). In order to be able to meet the employees’ needs, the company owners believe that the economic success of their firm is one of their primary duties as mangers. In comparison, environmental issues seemed to be less important to them, presumably because of the already tight environmental regulation in Germany.

The activities SMEs implement as part of their corporate social responsibility reflect the attitude described above. The majority of activities are employee-oriented: The SMEs offer flexible working conditions including working in home-offices or on a part-time basis, training, reduction in
working hours to homecare relatives. Consistent with German practices, they avoid lay-offs, for example, by offering employees individual arrangements for early retirement. It is remarkable that some SMEs care not only for their employees, but also for their family members, e.g. by paying for childcare and handing out presents when a wedding or christening takes place. In some cases, company owners engage immensely to ensure the well-being of their employees as the following example shows:

„For some employees, I take responsibility for their financial issues. I make arrangements with their creditors and transfer outstanding amounts immediately from their salary. For some employees I even transfer the payment of rent and pay them in cash."

When SMEs address the communities they work in, they do so mainly by employing charitable donations as an instrument of social responsibility. According to other studies (Bader et al., 2007; forsa, 2005; European Commission, 2002), the main recipients of SME donations are local institutions and initiatives focusing on education and sports.

**Experts view on drivers and breaks of CSR engagement**

The 11 interviewed experts name diverse reasons for SMEs to engage in CSR; several of them are economic reasons. The consultant Eckard Voss believes that economic success is the major driver: „Enterprises will only get actively engaged in CSR if they expect concrete profits from their efforts.“ For example, SMEs try to attract clients and potential employees by engaging in the community and earning a positive reputation. This appears to be more important for companies in rural areas than for those in cities where more well-educated people choose to live and work. The experts believe that a well implemented CSR strategy will have a positive impact on the employees by motivating them in their work, enhancing their loyalty to the enterprise and improving their soft skills. Also financial regulations such as “Basel II” are cited to be an incentive for CSR engagement, since banks are more willing to grant credits to responsible companies which appear to be less risk prone than others. Since SMEs often work as suppliers to or sub-contractors of larger companies (Morsing & Perrinin, 2009), they are in some cases expected to comply with their clients’ social and environmental standards or to get certified by a third party, e.g. with ISO 14001. When standard compliance is enforced by clients, little room is left for developing a creative and innovative CSR strategy reflecting the SME’s culture, history and competencies.
The experts discussed at length how legislation ought to be improved and institutions could contribute towards a more CSR-friendly environment. Regarding legislation, they preferred financial incentives such as tax brakes for active companies over laws defining minimum standards. Incentives, they believed, will lead to SMEs searching for innovative and more adapted solutions than those that will be implemented in reaction to a law. In addition, they feared that legal requirements will lead to more bureaucratic demands on SMEs which will limit their resources for actually implementing CSR activities. In contrast, initiatives towards industrial self-regulation such as voluntary codes of conduct were recommended by some experts.

Regarding institutions, the experts believed that academia, chambers of commerce and chambers of trade as well as the media could contribute towards more CSR engagement among SME by developing strategies that reflect the needs of different SMEs, providing information and communicating best practices. Formal and informal networks, round tables and other regular meetings addressing CSR were deemed as useful by the experts, since managers will be able to exchange their ideas and experiences freely in such settings. Andreas Rönnau from Hamburg’s chamber of commerce emphasizes that it is not important where the exchange take place, but that it takes place; pointing out: „What is the golf course to a manager, is the auxiliary fire brigade for the manufacturer.“

The major breaks that SMEs experience to their CSR engagement is, according to the experts, a lack of information on best practice for CSR and methods of implementing them. In addition, managers often do not know how to find a suitable collaborator who will help them getting started. Also a lack of financial and human resource is considered as a major brake. Especially in the early phase, when managers reflect on their SME and its role in society and try to frame a strategy, time and know-how are crucial. If they are lacking, the company might never get involved in CSR. The experts also pointed out that SME representatives tend to misinterpret the German term for CSR („soziale Unternehmensverantwortung“), since – as in the French language – the German adjective sozial is associated with welfare and charity and, thus, does not correspond with the English or sociological use of the term as an equivalent to societal.
Drivers of CSR according to German SME representatives

A variety of drivers was mentioned by the interviewed SME representatives. In order to structure the discussion, we distinguish drivers at the individual, organizational and macro-level.

Drivers at the individual level

The most important driver for CSR was identified at the individual level. The personal conviction of the owner and his/her commitment towards CSR determine the degree of a SME’s engagement. The interviewed owners explain their commitment with their educational background and family traditions. Many of them volunteer in civil society organisations. Owners regard themselves as role models for the employees and responsible for upholding the company’s reputation, as the following statement exemplifies: „We cannot expect employees to make an effort to do something that my family and I are not willing to do ourselves.” In general, the owners exhibited a very distinct social consciousness which was reflected in the variety of CSR activities they implemented. Notably, they were aware that their companies’ and they themselves are part of society and thus responsible for contributing to its welfare.

The owners linked their vision of leadership to CSR. Being a good leader was an important driver to them, since they are aware that their behaviour is an example for their employees and other people. One of them said: “We cannot accept things from others, that we are not willing to do ourselves.” Having a good relationship to their employees was an important goal. In particular, open communication with employees and respectful behaviour towards them were referred to as key determinants of good governance or good leadership. The reasons for this emphasis are manifold and can reach from family tradition to the conviction that happy employees contribute more as the following two statements show:

“My father taught me to take care of every single employee.”
„If we only had employees that did not like working in my company, they would bring less benefit. I am convinced that someone who feels comfortable at work behaves more in the interest of the company than someone else.“

Drivers at the organizational level

Besides encouraging the individual employee’s commitment towards the firm by engaging in CSR, improving the working atmosphere and creating a positive corporate culture were other objectives
for engaging in CSR. Many of SME owners described the working atmosphere in their firm as “familiar“, “harmonious“, “motivating“ and „happy“. They believe that their very low rates of employee turnover are a result of such a positive working environment and conclude that it is a competitive advantage in terms of recruitment, when they compete for talented employees with larger companies.

Drivers at the macro-level
At the macro-level the respondents referred in particular to the tradition of the “honourable tradesman” (“Ehrbarer Kaufmann”) which is prevalent in Hamburg where the study was conducted. Hamburg differs in this aspect from other German cities as it has one of Europe’s largest ports and a tradition for international trade dating back to 1189 when it received the status of an Imperial Free City (“Freibrief”) and to 1321 when it entered Hanse alliance which dominated the trade in Northern Europe for five centuries (Verg, 2007). As a result, the town was governed by tradesmen rather then by noblemen or clerics. Accordingly, the emerging ideal was related to values which dominate among trades people: being honest, offering fair conditions and conducting handsale, i.e. a transaction is concluded by the handshake. In short, the Hanseatic trades person is supposed to be honourable and reliable and has a tendency towards understatement. In line with the Evangelical-Lutheran tradition of Hamburg, social engagement is not communicated, since the aim of charitable behaviour is not to gain from it, but to fulfil God’s will and to praise Him (Melanchthon, 1530). For example, it is not generally known that Hamburg is the town with the largest number of charitable foundations in Germany (Göhring & Suhrke, 2007). As we will see in the following section, this tradition of not speaking about social engagement can also be interpreted as a brake, since a public exchange of best practices and experiences is hindered by the fact that entrepreneurs are reluctant to speak about their engagement.

Breaks of CSR according to German SME representatives
Breaks at the individual level
Some of the aspects discussed as drivers to CSR engagement are also potential breaks. For example, it is usually the owner of the SME who is in charge of the CSR strategy. Since CSR engagement is considered to be a “personal thing” of the owner and his/her family, CSR activities are frequently not integrated in the general strategy of the SME. Their occurrence appears to be somewhat
sporadic and spontaneous. As a result some of the potential advantages of engaging in CSR may not be realized by SMEs.

**Breaks at the organizational level**

The lack of time and money was mentioned as an important reason why CSR activities are not conducted. Part of the problem might be the important role the owner plays in this field. If she/he is not available a CSR project might come to halt. As a result, the intensity of a SMEs CSR engagement might reflect the owner’s availability for this kind of activities.

In accordance with Hanseatic tradition, the respondents are reluctant to report their CSR activities. The vast majority communicates neither internally to the employees nor externally to clients, suppliers or the general public. Only a few respondents claim to inform their clients and other stakeholders by issuing press releases and on the firm’s homepages. Employees are slightly more often informed about the CSR activities through staff newsletters or in-house magazines, however, no specific communication tool was implemented that was designated to CSR. The respondents believed that communicating on CSR would not be honourable, as following statements illustrate:

“We don’t communicate our engagement, because we do it out of conviction and not to gain a PR effect.”

“This is not a PR campaign for us, we don’t do that.”

**Breaks at the macro-level**

The majority of the respondents claimed that they felt no pressure to engage in CSR. They saw no need to emphasize the issue of social responsibility in their day-to-day business. However, they strongly criticised that legislation was changing in this area quite frequently imposing more bureaucratic obligation on them. They felt that they spend more time in order to fulfil these obligations than actually implementing social and environmental improvements in their business and developing creative CSR approaches.

Although experts recommended networks for exchanging ideas, best practices and experiences, the study shows that only few respondents participated in such networks. None of the owners or SMEs
is a member of any CSR network. However, inter-trade organisations and industry associations were mentioned as a potential platform for networking and information exchange concerning CSR.

**Comparison with quantitative studies from Germany**

In general, the responses made by managers in our qualitative study match the results found in quantitative studies discussed above. The strong emphasis of the role and conviction of the owner-manager is consistently found in all studies which address this question (ASU, 2007; Bertelsmann Stiftung & Stiftung Familienunternehmen, 2007; Bader, Bauernfeind & Giese, 2007). Another returning motive is the strong focus on employees’ needs and motivation when choosing CSR activities (Institut für Mittelstandsforshung, 2007) and a tendency towards philanthropy as a form of engagement (forsa, 2005; Bertelsmann Stiftung & Stiftung Familienunternehmen, 2007; Bader, Bauernfeind & Giese, 2007). In contrast, to the quantitative studies (ASU, 2007; Gilde, 2007a), the wish to enhance the firm’s reputation was rarely discussed as a driver during the interviews. The managers appeared to care more about their leadership role towards their employees than about the company’s perception by outsiders. The somewhat lower sensibility towards public perception might be explained by the fact that the investigation took place in a large city, reflecting on the findings of forsa (2005) that the prevalence of CSR is lower in larger communities than in smaller ones. Consistent with Gilde’s quantitative study (Gilde, 2007a) we found that motivating and recruiting employees was an important motive. The lack of time and money is mentioned in both studies (Gilde, 2007a and ours) as an obstacle to CSR engagement. However, in the interviews the managers did not admit that a lack of know-how is an obstacle, although the results from Gilde (2007a) suggest this.

**The quest for sustainability: SMEs in Brittany, France**

**Methodology and sampling**

Brittany is a well developed region with most of its companies working in the services sector (36.3 percent) and in the agro-food industry (27.8 percent) (Chambre Régionale de Commerce et d’Industrie de Bretagne, 2008). Micro-enterprises and small and medium enterprises account for 99 percent of the number of businesses in the region (Chambre Régionale de Commerce et d’Industrie de Bretagne, 2007). For the sampling the data base of a local consulting firm and a local Agrofood network were used. In order to assure that a sufficient number of respondents already had experience with CSR activities, companies who stated sustainable development policies in their
public documents or on their websites were included in the sample in addition to randomly chosen companies. By this, we attempted to include both companies who had a stated sustainable development policy and those who didn’t. The result was a convenience sample of five hundred companies ranging in size from 5 to 1000 employees situated in the region of Brittany. An introductory letter was sent by post and the firms were subsequently contacted by telephone. 72 interviews were completed and included in the analysis. Thus, the response rate is 14.4 percent. We assume that sample is biased towards companies who are aware of the issues related to CSR and who implement at least some CSR activities.

Semi-structured interviews were carried out from mid-November to mid-January (2007-08) mostly by telephone, occasionally face-to-face. The interviews lasted from twenty minutes to an hour, depending on how much time the interviewee was willing to give us, and on how much they had to say. Part of the interview guideline was available in two versions: for companies which are engaged in CSR and for companies without CSR experience. 52 respondents said their firm was completely or partially engaged while 20 answered that their firm is not doing CSR. When analyzing the drivers and brakes for CSR engagement, the answers of these two groups will be discussed separately.

**The concept of CSR interpreted by managers of French SME**

As mentioned before the term used in the interview for representing the subject was sustainable development. The definitions of sustainable development given by the interviewees emerged into two main categories: i) those who included three dimensions, social economic and environmental in their definitions (23 cases) and ii) those who spoke about the environment, either in terms of “leaving the planet in a proper state for our children” or in terms of physical resources management (32 of them). 9 respondents from these two groups included the idea of long-term survival of the firm and the environment in their definitions. So it appears that as found in some previous studies (Lawrence et al., 2006; Perrini, 2005), many companies seem to be concentrating on the environmental aspects of CSR. This may be because of the emphasis of the environment in the French media when sustainable development is discussed, or it may be that this is the aspect most easily apprehended by SME managers. It may also be, as discussed earlier (Berthoin-Antal & Sobczak, 2007), that the social aspects are not perceived as part of CSR, as they are strongly regulated by the institutional and legal framework in France.
In the minorities there were seven cases who expressed mistrust and some hostility to the term describing it for example as “a marketing ploy”, “used by politicians and greens”, “in fashion”. Three of them separately used the term “tarte à la crème” to describe it, meaning that it looks good but has no substance, or that it is a fuzzy term. Only two interviewees said they did not know the term in a business sense. Although the majority believes that sustainable development is positive in many ways, several interviewees shared a concern that it should not become a simple marketing tool, and that there needs to be evidence of real action taken. As one (convinced) interviewee put it “I don’t trust the ‘fashionable’ aspect” of sustainable development.

**Drivers and breaks of CSR according to French respondents from SMEs not engaged in CSR**

Among the 72 SME representatives who participated in the study, 20 said that their company does not engage in CSR. However, 10 of them intended to move towards CSR in the future. The reasons why they might or might not make the change, the potential drivers and barriers are the subject of this section. Table 3 gives an overview on the frequency of drivers and brakes mentioned by the respondents.

Table 3: Perceived potential drivers and brakes of CSR for companies not engaged in CSR.

<table>
<thead>
<tr>
<th>In order of number of times cited</th>
<th>INTERNAL FACTORS</th>
<th>EXTERNAL FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INDIVIDUAL</strong></td>
<td>Drivers</td>
<td>Brakes</td>
</tr>
<tr>
<td>Director (driver and brake)</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Need for person to implement it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ORGANIZATIONAL</strong></td>
<td>Drivers</td>
<td>Brakes</td>
</tr>
<tr>
<td>- Client/market demand (driver and brake)</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>- Difficulties of organization; Employees (driver and brake)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Financial risk; Knowledge;New markets; Supplier (driver and brake);Competition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Size; Time; Product</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MACRO</strong></td>
<td>Drivers</td>
<td>Brakes</td>
</tr>
<tr>
<td>- Environmental concerns</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>- Societal change; « When we’re obliged to »</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Legislation;Global competition; Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>12</td>
<td>26</td>
</tr>
</tbody>
</table>
At the individual level the individual most referred to in this context was the director. If the director is committed to CSR, the firm is likely to implement it, while a sceptical leader usually has a discouraging influence on enthusiastic employees. As one interviewee put it:

“It depends on the directors… simply because we follow the leader. We are too involved in our daily affairs. The day that our client insists that we implement CSR it will become vital. We will then be acting through necessity instead of it being a proactive, voluntary process. We are at risk of being seriously held back when we actually have all the resources we need to go ahead right now.”

Other drivers at the individual level were a need that was felt to engage in a certain CSR activity and the concern for the welfare of the own children.

Organizational factors, both internal (26) and external (20), featured more frequently than individual or macro factors in the interviews. Usually, internal organizational factors such as financial risk, time, organizational difficulties, size or knowledge are quoted as a brake to a move towards CSR whereas external organizational factors, for example client demand or market opportunities are predominantly seen as potential drivers of CSR. In contrast, macroeconomic issues such as concern for the environment, legislation, global competition, social change were seen exclusively as drivers of CSR. In conclusion, organizational issues came out as the dominant force in the change process, with internal forces broadly being seen as impeding the process and external forces driving it.

One of the brakes discussed in the sustainability literature are that SME managers believe that SMEs have little impact on the environment (Ammenberg and Hjelm, 2003; Simpson et al. 2004; Simon & Basset 2007) and that this is a major reason why companies do not engage in environmental programs. In our study which used open-ended elicitation questions, however, not one of the interviewees mentioned this as a brake. This leads us to tentatively propose that although managers of SMEs recognise that the impact of their activity on the environment is comparatively low, this fact is not perceived as a reason for refraining from CSR.

When we investigate the question, whether companies find it difficult to engage in CSR due to external restrictions or because they are not entirely capable of doing so, we learn that internal
factors are much more frequently perceived as brakes to change rather than drivers (26 vs. 12). A lack of financial and human resources is one of the dominant reasons, as one manager put it: “There are just so many other things to do, it’s a question of managing priorities – putting a quality process, putting in place an international strategy … CSR is not in our top three priorities in the coming year”.

In contrast, external factors are cited as potential drivers of change much more frequently than as brakes (34 vs. 3). For example client demand was often cited, either as a brake “If my largest client said, OK now I must have a product with different features, I would have to go that way. But for the moment my clients only ask about the price.” or as a driver “Our customers are asking us about [CSR], it’s impossible to answer them, so we’re trying to put something in place”.

In sum, managers emphasize the difficulties of implementing changes in their own firm as a major reason why the company has refrained from CSR so far, although they perceive that their environment would welcome and potentially support such an engagement.

Drivers and breaks of CSR according to French respondents from SMEs engaged in CSR

In the 52 companies with some CSR in place, a look at the distribution of the frequencies showy an interesting pattern: external factors are discussed much more frequently than internal factors (see table 4). Also, they tend to be interpreted as potential drivers of change, since they are mentioned 62 times as having a positive influence and only 23 times as acting as brakes. In contrast, internal factors are quoted as driving and braking CSR activities in about equal proportions (38 vs. 33).
Table 4: Perceived drivers and brakes to implementation of CSR in companies with some CSR engagement

<table>
<thead>
<tr>
<th>Internal Factors</th>
<th>External Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IN ORDER OF NUMBER OF TIMES CITED</strong></td>
<td><strong>+</strong></td>
</tr>
<tr>
<td><strong>INDIVIDUAL</strong></td>
<td></td>
</tr>
<tr>
<td>Directors' values</td>
<td>23</td>
</tr>
<tr>
<td>Family, friends &amp; personal life</td>
<td></td>
</tr>
<tr>
<td>Employee &amp; Director's will</td>
<td></td>
</tr>
<tr>
<td>Education (of respondent)</td>
<td></td>
</tr>
<tr>
<td>Quality auditor</td>
<td></td>
</tr>
<tr>
<td>Author</td>
<td></td>
</tr>
<tr>
<td><strong>ORGANIZATIONAL</strong></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>15</td>
</tr>
<tr>
<td>Employee related</td>
<td></td>
</tr>
<tr>
<td>Clients</td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>Competitivy/differentiation</td>
<td></td>
</tr>
<tr>
<td>Knowledge, technology, innovation</td>
<td></td>
</tr>
<tr>
<td>Image</td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td></td>
</tr>
<tr>
<td>Shareholder/stakeholders</td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td></td>
</tr>
<tr>
<td>New construction</td>
<td></td>
</tr>
<tr>
<td>Company Values</td>
<td></td>
</tr>
<tr>
<td><strong>MACRO</strong></td>
<td></td>
</tr>
<tr>
<td>Press/Media/Image</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td>Concern for humanity &amp; community</td>
<td></td>
</tr>
<tr>
<td>Government &amp; Legislation</td>
<td></td>
</tr>
<tr>
<td>Unclear guidelines</td>
<td></td>
</tr>
<tr>
<td>Business Network</td>
<td></td>
</tr>
<tr>
<td>NGO, Global Compact, Industry philosophy</td>
<td></td>
</tr>
<tr>
<td>Energy Costs</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>38</td>
</tr>
</tbody>
</table>

When we take a closer look at the internal factors cited as driving CSR, we see that they are clearly individual in nature (23 vs. 15). Many interviewees cited the personal values of the director as the spark that really began the process. When internal obstacles or brakes such as employee resistance to change or lack of time were discussed, however, these were all expressed at the organisational level. External organizational forces such as client demand and competitiveness were seen more frequently as positive forces for a move towards CSR (18 vs. 6). Also macro forces were seen mainly as a push factor towards CSR, the protection of the natural environment in particular. However, the media was considered to be a double edged sword: important for positively
influencing and informing businesses, but also seen to tarnish or deform the whole concept of CSR with worries expressed about a “militant” image or “political correctness” taken too far.

Summing up the wide range of answers received, we conclude that although many refer to economic, ecological and social aspects when defining CSR, the protection of the natural environment is dominating the current discussion. When analysing the impulses that lead companies along the path to CSR, and aspects that are holding them up, we find multiple and complex forces influencing the change process in SMEs. The indirect macroeconomic, social and ecological environment is playing a major role in driving CSR, whereas the internal context of the company is often throwing up obstacles to the change.

**Comparison of SMEs with and without CSR engagement**

From the analysis as to what had triggered the move towards implementation of CSR in the case of the companies who were engaged and the beliefs of what might trigger the introduction of CSR in those companies who were not engaged, a rather complex picture emerges. The fact that personal values and environmental concern are cited relatively more frequently among those companies which are already engaged in CSR, and that organizational factors such as the markets and competition are more prevalently cited for those companies not engaged in CSR gives rise to the intriguing possibility that we imagine that the market will pressure a company into CSR, but what triggers action in reality is often more complex and definitely include the personal values of the director and top management.

Overall it seems that where companies can have an influence, i.e. internally, the strongest driver is at the individual level, and the main obstacles come from organisational difficulties. When it comes to external forces, macro factors, mainly the state of the natural environment are having a positive influence. It is interesting to note that NGOs were hardly mentioned at all, and legislation was seen equally as a driver and a brake, some managers perceiving French and European law as entirely sufficient (in some cases too restrictive), and others feeling that more legislation was necessary. There was similar disagreement about the role of certification and norms. A few respondents feel that they are useful guides to implementation and others think that they were complex and were going to be too heavy a burden to bear, particularly for smaller companies; as one interviewee stated: “It [sustainable development] is more a state of mind than an ISO certification.”
Comparison with quantitative studies from France

The responses from the managers matched some and contradicted other results found in the quantitative studies conducted in France (Dupuis et al., 2006; Berger-Douce, 2008; LAB RII – ULCO, 2007). Overall we found more similarities with the study conducted among SMEs in Rhône-Alpes (Dupuis et al., 2006) than with the study focusing on France’s 200 most profitable SMEs (Berger-Douce, 2008). This is not surprising, since we sampled all kinds of companies in Brittany among them also less profitable ones. Consistent with the findings of Dupuis et al. (2006) the personal conviction of the owner was emphasised as a motive for CSR alongside with the anticipation of new legislation, cost reduction and the wish to differentiate the firm from competitors. However, several points that were presented by Dupuis and colleagues as reasons for CSR turned out to be also potentially hindering such an engagement: the director might not support CSR, legislation can be an obstacle for some activities and sometimes customers’ reject more sustainable products or services. The major obstacles mentioned in our study and by Depuis et al. (2006) were consistently a lack of money and time. Most obstacles discussed by LAB RII – ULCO (2007) were mentioned by our respondents as well. As reasons for CSR both studies mention motivating employees, requirements by customers (which we found out to be a driver and a brake), political requirements and diversification. Similar to the interview conducted in Germany the question of doing CSR in order to enhance the company’s reputation was less frequently mentioned, although it was found to be the main driver in the study of LAB RII – ULCO (2007). A possible explanation for the difference is that managers do not feel comfortable to discuss this motive despite the fact that it is important, because they do not want to be perceived as employing CSR as a marketing tool.

Discussion of German and French responses

When we compare the responses from the interviews conducted in Germany and France, we find a number of similarities and some differences. In both countries some respondents were sceptical regarding CSR, because they feared that it was too often reduced to a marketing tool. The activities which were implemented to meet the company’s responsibility reflected some national specifics. In Germany, the emphasis was on social activities, while in France environmental protection was focused on. It appears that because CSR is supposed to be voluntary in character (Commission of the European Communities, 2001), activities in areas where national regulation is comparatively...
weak are more often chosen for implementation. Regarding the main drivers for CSR engagement the importance of the director’s personal conviction and support for CSR and the relevance of employees as the firm’s key stakeholders were emphasised in both countries (see table 5). This result is consistent with the reasoning of the European Multistakeholder Forum on CSR (2004) and of Spence (2007) as well as with the result found by Jamali and Zanhour (2008) and Vives (2006) outside Europe. Among the brakes the lack of time and money is a returning motive in Germany and France (see table 6).

Table 5: Comparison of main drivers perceived in Germany and France

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>France</th>
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<tbody>
<tr>
<td>Individual level</td>
<td>• Personal conviction of director</td>
<td>• Personal conviction of director</td>
</tr>
<tr>
<td></td>
<td>• Leadership/role model</td>
<td>• Influence of family, friends</td>
</tr>
<tr>
<td></td>
<td>• Good relations with employees</td>
<td>• Education of director</td>
</tr>
<tr>
<td>Organizational level</td>
<td>• Encouraging employee commitment to the firm</td>
<td>• Cost reduction</td>
</tr>
<tr>
<td></td>
<td>• Good working atmosphere</td>
<td>• Motivating and responding to employees</td>
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<tr>
<td></td>
<td>• Low employee turn-over</td>
<td>• Differentiation/innovation</td>
</tr>
<tr>
<td></td>
<td>• Recruitment</td>
<td>• Response to stakeholder demands (costumers, suppliers, shareholders)</td>
</tr>
<tr>
<td>Macro level</td>
<td>• Ideal of the honest businessman</td>
<td>• Government/legislation</td>
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<td></td>
<td></td>
<td>• Media reports</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rising energy costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Business networks and civil society pressure</td>
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Table 6: Comparison of main brakes perceived in Germany and France

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>• Sporadic activities</td>
<td>• Personal conviction of director</td>
</tr>
<tr>
<td>level</td>
<td>• No integration in the firm’s strategy</td>
<td></td>
</tr>
<tr>
<td>Organizational</td>
<td>• Lack of financial resources</td>
<td>• Lack of financial resources</td>
</tr>
<tr>
<td>level</td>
<td>• Lack of time</td>
<td>• Lack of time</td>
</tr>
<tr>
<td></td>
<td>• Lack of internal and external reporting on CSR activities</td>
<td>• Employee resistance</td>
</tr>
<tr>
<td>Macro level</td>
<td>• No external pressure</td>
<td>• Government/legislation</td>
</tr>
<tr>
<td></td>
<td>• Changing legislation</td>
<td>• Unclear guidelines</td>
</tr>
<tr>
<td></td>
<td>• Too much bureaucracy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• No participation in networks specialised on CSR</td>
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</tbody>
</table>

When we compare our findings with the reasoning of the European Multistakeholder Forum on CSR (2004) and the overview on both empirical and theoretical research provided by Spence (2007), we receive a rather consistent picture. All the drivers (people issues, environment, positive reputation, legislation) mentioned by the European Multistakeholder Forum on CSR (2004) and most of the obstacles (conflicting time and resources pressures, lack of know-how and know-how, but not a reluctance to seek external help) were mentioned and in the majority emphasised in our interviews. Among the success factors proposed by the Multistakeholder Form we find strong support for the importance of a committed owner, the enthusiastic engagement of employees and some support for the necessity to integrate CSR into management and operational practices. The need for networking opportunities and examples of good practices was more emphasised by the German experts than by the German and French managers and the idea to implement CSR in a staged approach was never mentioned in our interviews. In a similar manner, our results reflect most of the characteristics that are according to Spence (2007) typical for SMEs engaging in CSR. Only some of our French respondents made some contradicting remarks. A number of French SMEs appear to have a rather strategic approach towards CSR which might be a result of the public discussion of sustainable development after the election of President Nicolas Sarkozy who initiated the so-called *Grenelle de l’Environnement* – a round table process taking place between July and
October 2007 in which issues were identified that ought to be addressed politically in order to facilitate sustainable development. Another inconsistency was found regarding the role of costumers. While it is often assumed that costumers are supportive of CSR engagement, some French SMEs experienced them as sceptical and rejecting products which were more environmental friendly.

**Summary and conclusion: Driver and brakes of CSR engagement of SMEs**

Overall the results form the different studies and the analysis provided by experts reach consistent conclusions, among them the fact that we find a great diversity among SMEs approaching CSR. The approach to identify drivers and brakes for CSR engagement allows reaching useful conclusions. A further distinction of drivers and brakes at the individual, organizational and macro level helps to specify drivers and brakes more in detail and to develop policies and mechanism which support SMEs more efficiently.

Comparing the different empirical studies analysed in this paper following conclusions can be drawn: The convictions of owners’ and directors’ are crucial for the companies’ CSR engagement. If they are not convinced, neither the employees nor any external stakeholder can pressure an SME to truly engage in CSR. Although important clients are able to dictate compliance on selected issues, in general, the absence of public scrutiny allows SMEs to work in their own fashion. It can be concludes that institutions such as chambers of commerce or industry associations which want to increase the number of responsible SMEs should address the owners and directors directly and convince them of the purpose and feasibility of CSR. The major brakes of engaging in CSR activities which the managers would like to implement, is a lack of time followed by a lack of financial resources. Accordingly, financial incentives such as tax breaks and the promotion of CSR activities which are easy to implement or help to save money are advisable in order to lower the barrier for a first CSR engagement. A variety of other influencing factors was found to be relevant in the different studies, but most of them are only relevant for some SMEs due to the great diversity among them. Further research should concentrate on SMEs working in the same industry rather than focusing on regional samples, in order to identify drivers and brakes as well as solutions that are tailored to the need of specific SMEs.
It would be interesting to compare SMEs from the same industry which work in different countries. The major differences we found comparing German and French SMEs were not the drivers and brakes for the engagement, but the focus of their activities. It appears that – at least in Europe – the national differences influence to some extent how CSR is implemented, but not the question whether it is implemented. Although we found that culture in the form of historical developed ideals such as the honest tradesman influences the way CSR is approached, it appears that the current public discussion and political agenda have the greatest influence on the choice of CSR activities besides personal preferences and specifics of the SME’s business and its immediate community. Thus, we would expect that SMEs from the same industry working in different countries share some CSR activities, e.g. are related to technologies employed in the sector, but differ in some more specific activities or regarding the overall emphasis of their engagement and the way CSR is communicated.

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WS1.2-2. Abstract:

‘Diversity without diversity management’
by Tina Kallehave, Ethnologist, PhD and Assistant Professor, Division of Education, University of Copenhagen, Copenhagen K, Denmark

The purpose of this paper is to make a contribution to the understanding of how ethical practices are developed in small and medium sized enterprises. The ethical practice is researched in terms of labour conditions and limits of diversity among employees with special attention to the inclusion and positioning of employees with ethnic minority backgrounds. The article argues that the ethical practices are neither result of conscious strategies for diversity management nor reflections of the prominent actual speaking of corporate social responsibility in society in general. Rather analyses of data from three small enterprises reveal a strong linkage between the owner-managers different perceptions of being owner-managers and the ethical practices involved in their everyday management of business.

The paper is based on intensive fieldwork including long-term observations, formal and informal interviews in three small businesses; a construction company and a national and an international production company. The fieldwork and thus the production of data focus on the business history, the whole process of production, the daily tasks and relations of the managers and the employees. The analyses reads the organisation and the practices as on the one hand providing particular conditions for being an employee while on the other hand also as practical expressions of the managers reflections, perceptions and normativities of management.

The analyses develop into a distinction between different concepts of the owner manager that allows for further reflections of relations between management and ethical practice within SME. The paper concludes the ethical practices are not practices added to the management of the small business for moral reasons; rather the ethical practices are already integrated parts of the different modes of management culture itself.
Managing diversity and diversity management

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Abstract
The purpose of this paper is to contribute to the understanding of how ethical practices are developed in small enterprises. The ethical practices are researched with special attention to the owner-managers inclusion and positioning of employees with migrant backgrounds and its preconditions. The analyses show how diverse constructions of the migrant as labour is related to the owner-managers different modes of management that all reflect and depend on particular structural conditions in the Danish society. The article argues that the management of diversity is not results of conscious strategies for diversity management. Rather analyses of data from three small enterprises reveal a strong linkage between the owner-managers different perceptions of being owner-managers and their management of diversity. Further materials from a competition for a “diversity in work life” prize show that when owner-managers actually do identify with diversity management, they do so in profoundly different ways and for different reasons.

Keywords
Diversity management, migrant background, management practices and changes, qualitative analyses

Introduction
Theories of management like The Learning Organizations, Lean, CSR and Diversity Management are highly valued among today’s managers and consultancies have developed extensively to support public and private businesses to implement these and other new theories of labour management.
The employees have become a resource to invest in, and good labour management is expected to be conducted through the lens of modern human resource management theories. Parallel to this researchers investigate the so called best practice cases to further develop management theories and an increasing critical attention is developed towards companies, where management is not based on formal management strategies (Perrini, Russo and Tencati 2007). Researchers thus support the tendencies within management practice through the development of management theories and further through management education and the teaching of managers. This increasing institutionalization of management education has brought golden days to theories of management. Diversity Management is one such modern management theory that several Danish especially larger companies ascribe to. It is also a mode of management that has drawn attention from researchers and institutions aiming to develop best practice strategies (and prevent limitations) for conducting Diversity Management (Brandi and Hildebrandt 2003; Nour and Nellemann 2005).

As with other theories of modern management, Diversity Management has been subjected to more critical research traditions. It is here argued that Diversity Management involves an instrumental perception of ethnicity which allows for the employment of labour form a migrant background because their ethnic background is expected to contribute with something particular to the business (Wrench 2003) – and in close relation to this – that diversity management risks to essentialise the employees in terms of ethnicity which allows for a continued differentiation among employees along lines of ethnicity (Staunæs 2005; Søndergaard 2005).

The critical voices highlight the risks of new ways of legitimising the exclusion and subordination of the migrant labour at the labour marked and on the workplaces. This is an important knowledge about Diversity Management. However as some critical researchers also mentions, it is important to acknowledge that management of business and thereby categories of differentiations of employees is not identical with management theories and their conceptualisations of employees. If researchers’ attention is limited to Diversity Management theory and to diversity management in practice it fails to reckon, that management of employees is often a result of much more complex perceptions, practices and relations of management. Further, if research on migrant employees is limited to research in organisations ascribing to Diversity Management then the inclusion and positioning of migrants in businesses subscribing to other theories of management or not subscribing to formal management theories at all – but still employing employees with migrant backgrounds, are excluded.
form research. The small and medium sized enterprise, making up about 50% of the European labour marked, have often been pointed out on basis of their frequent ‘lack’ of and event sometimes ‘reluctances’ towards HRM strategies (de Kok, Ublaner and Thurik, 2006; Hutchinson and Quintas, 2008; Helfen and Schuessler 2009) and thus risks to be eliminated form this kind of research.

This is not to say that management theories are out of interest – rather it is to say management theories are important to understand management of employees, but so are also other social and organisational aspects. Thus describing and understanding management, its demands on and differentiation among employees and here especially the inclusion and positioning of migrant employees on the labour marked and in organisations thus calls for a view upon management that transgresses and expands the limitations of researching management practices as more or less successful or problematic realisations of management theories.

This paper illustrates, how management practice and their different constructions of employees can be analysed and understood both as particular modes of management and as more general expressions of the organising of the Danish society. Thus although SMEs are a world wide phenomenon it is here argued that modes of management in SMEs are strongly related to their immediate societal context. To do this, I will mainly draw on conclusions and examples from my research in employee management in small enterprises (SMEs) but also draw on other research in management and the welfare state. To start with, though, I will shortly introduce to the key concepts and theoretical construction of management and society that guides the ways in which I question and analyse management practice in a specific societal context.

**Conceptualising management**

To describe and understand the different modes of employee-management practice in relation to the organisation of society my primary theoretical inspiration is the ethnological state- and life-mode analyses. This theory includes a number of concepts and analytical perspectives that I will introduce continuously. As an introduction though, it is important to say that a core issue of the state- and life-mode analyses is to understand the viability of different modes of existence; peoples everyday life, organisation and businesses, societies, states - and the preconditions for their viability. In close relation to this is also the interest in changes and discontinuities in modes of existence. The concept of praxis plays a key role in the analyses of different modes of existence. Life-modes, modes of
production and state modes are all different conceptualisations of viable modes of existence based on the concept of praxis (Højrup 1989). Further the viability of these modes of existence are conceptualised as their capability to reproduce themselves through continuously exchanges with and mutual dependency to other praxis’s. The ambition to understand conditions of reproduction and change for different modes of existence has made both the constituent elements of praxis and the preconditions for the reproduction of this praxis a focal point in research process. The analyses thus aim to distinguish constituting elements and relations of a mode of existence from non constituent elements and relations. As such research is claimed not to reach a higher understanding of a social phenomenon like management by adding yet another intersecting category like gender to the analyses but through an investigating that develops from the constituting aspects of the management praxis (Nielsen 2002). Further the concept of reproduction forces the analytical view to expand out of business and internal management to look for the societal preconditions allowing for these particular modes of management. In this way, the management practice and the construction of the labour force is not only a reflection of management thinking, but also a more general reflection of society. The interest for modes of existence and conditions for reproduction leads to an analytical bottom-up perspective from analysis of management practice to its preconditions.

Together with other theoretical and empirical reflections this perspective has led to an understanding of state and society not as two opposite positions but rather as two sides of the very same coin. Society – structures and different modes of existence that constitute society - are basically understood as a reflection of and developed through the states continuously fight to maintain its recognition and sovereignty in relation to other states (Hojrup 1995; Kaspersen 2008). Society is the internal organisation of the state. In this state- and life-mode perspective it becomes possible to investigate the present modes of management and the construction of the labour force as historic specific expressions of the state of the state. Management and the construction of labour is viewed as part of the state, not something different from or separated from the state. It is analysed as expressions of the historical and present cooping with challenges to maintain the sovereignty of the state in relation to other states (Christensen 2009; Nielsen 2004). In this paper, management of employees is thereby both investigated as aspects of different viable modes of management and constructions of the migrant as labour that call for particular preconditions in society to reproduce
themselves while at the same time these viable modes, their preconditions and challenges are also discussed as reflecting core elements of the organization of the Danish society.

The paper is based on ongoing research. It departs from my present research, where I analyse the relation between different modes of management in small enterprises and formations of labour with particular attention to labour with a migrant background. From there it develops into the discussion of how management and the construction of the migrant as labour relates to and reflects the particular organisation of the Danish society.

**SME and different perceptions of the migrant as an employee**

**Managing migrants without diversity management**

The first example relates to employment of migrants without strategies of diversity management. The example illustrates the rationalities of managers who hire migrant employees with no particular attention to their migrant background.

The analyses, which are based upon in-depth qualitative data, compare two very different small enterprises. The first is CP Concrete, a construction company owned and managed by two former workmates with ethnic majority backgrounds. CP Concrete has 18 employees, including two employees with migrant backgrounds. The other company, TK Production, is a manufacturing company owned by a Danish manager and a German sleeping partner. It has 38 employees, including the wife of the owner-manager, and two employees with migrant backgrounds.

The analyses have continually followed two interwoven tracks. The owner-managers’ practices as owner-managers are explained through an analysis in which their practices as owner-managers are emphasised and related to other dimensions of their lives. This grip calls attention to the categories and perceptions through which the owner-managers regulate their involvement in their businesses in relation to other parts of their lives. This life-mode perspective is developed in conjunction with the analyses of the business histories, production processes, division of labour, and hiring and management of employees, structured by the concept of mode of production. The owner-managers’ daily practices and statements are hereby also analysed in terms of providing particular positions for the employees, while at the same time reflecting managers’ perceptions of management and
employees. The following concentrates on conceptualising similarities and differences among the owner-managers’ perceptions of being owner-managers and how this relates to particular modes of managing employees and thus conditions the inclusion and positioning of employees in general and migrant employees in particular.

Starting with Chris, one of the owners of CP Construct, there is a strong link between his own involvement in the business and his management of employees. He consequently distinguishes between the business and his private life and thus reveals that his perception of and practice as an owner-manager is based on a profoundly distinction between work hours and spare time. This is also reflected in his management and perceptions of the employees: they are for an agreed amount of work hours and wages hired to do the work that he as a manager orders them to do. Further for Chris, the main issue is to have the work done professionally and this call for qualified labour and his own right to manage. It is on the basis of his perception of labour as qualified wage-earners that Chris hires and manages employees. The inclusion and positioning of migrants is not related to their migrant backgrounds, but to Chris expectations to them, just like other employees, to be qualified wage-earners. The distinction between work hours and spare time not only for himself but also for the employees and his perception of employees as qualified wage-earners makes it relevant to understand Chris perception of being an owner-manager and his whole approach to management as a particular expression of the wage-earner life mode.

This mode of management is contrasted by that of Peter, the other owner of CP Construct, Torben and Karin, owner-manager and wife of TK Production, who all expect that employees, just like themselves, are responsible in relation to their jobs, the business and life in general. Peter, Torben and Karin’s own responsibilities are first and foremost expressed in the way they organise their own everyday lives; the integration of private life and business. But this is also expressed when they hire their own friends, friends and family of employees or people from the neighbourhood, not necessarily because they are qualified, but because they are in need of jobs. In contrast to Chris and his focus on professionalism, the three other owner-managers find it natural to adjust jobs to fit the people, and thereby include employees of very different personal, social and skilled capabilities, including migrants. The integration of privacy and business makes responsibility a necessity and truism that not only counts for owner-managers themselves but also forms the basic of the owner-managers modes of hiring and managing employees. These owner-managers all seem to realise the
basic principles of the self-employed life mode. Anyhow their very different positions in the businesses seem to fill in different meanings in the idea of responsibility. To Karin responsibility relates to employees being eg sweet or grateful where as Torben applies categories like serious working or do his best. Thus, not only the decisive differences among owner-managers’ life modes, but also the particular positions and conditions for the reproduction of these life modes in the businesses provide different management practices and thus mark the positions provided for employees with different expectations.

Applying the theoretical concepts of mode of production and life mode in the analyses has made it possible to accentuate and distinguish between owner-managers profoundly different management practices as either a separate or an integrated aspect of their whole daily lives. Conceptualised as different life modes – wage-earner life mode against the self-employed life mode – this difference is both reflected in the owner-managers different perceptions of being owner-managers and make up fundamental different positions from where their management practices in general and their inclusion and positioning of migrant employees in particular develops. To the wage-earner life mode management of employees develops form a perception of the employee as a wage-earner to instruct whereas to the self-employed life mode management develops from the expectation of the employee to be a person that takes responsibility for the job he has been given. Further differences in particular modes of management among owner-managers of identical life modes is observed and explained in relation to the particular positions and situations of the managers in the businesses. The analyses also show that owner-management might consist of more managers whose different practices create more complex modes of management and complex positions for employees. In the businesses included in this text migrant employees are positioned on equal terms with other employees.

Further, the inclusion and positioning of migrants are in none of the businesses related to prominent management theories, such as diversity management or corporate social responsibility. The migrant background is not in itself expected to qualify or disqualify the employees in relation to their participation in the production processes or social relations. Nor is the management associated with particular attention to migrants as different from other kinds of employees. Rather the privately owned SMEs seem as a particular mode of production to make room for modes of management strongly influenced by the owner-managers particular life modes, perceptions of and position in the
business. The inclusion and positions provided for migrant employees as well as for other employees is thereby directly related to the owner-managers particular perceptions of employees; here categorised as qualified wage-earners respectively responsible persons.

**Managing migrants with diversity management**

The next example illustrates other small enterprises that identify themselves with a Diversity Management strategy. The empirical data consists of different companies’ contribution to a contest on The Diversity in Worklife Prize of the Year launched by The Danish Centre for Human Rights since 2003. This empirical data is not yet throughout analysed, but it is included to indicate other ways of reasoning among SME owner-managers, when including migrant employees – and thus other ways of categorising the employees with a migrant background than we saw in the first examples.

The contributions to the contest is by The Danish Center for Human Rights organised on the basis of the size of the business, measured by the number of employees and by their status as public or private business. All participants have responded to a questionnaire and have in very different degree enclosed further information about their management practice. The questionnaire leaves room for qualitative descriptions of different aspects related to diversity management as defined by The Centre. At a general level the contributions reflects a difference between larger and smaller companies in relation to the formalisation and documentation of the Diversity Management strategy. Where larger companies often have written strategies for Diversity Management, smaller companies mostly do not.

Focussing on the arguments stressed by the smaller companies for hiring employees with a migrant background three arguments seem to dominate. The first points to the migrant labour as part of the more general labour force and thereby part of the required employees, while the two others argue, that today’s composition of the labour force makes it necessary to employ people with a migrant background within these particular branches if any employees at all or that the marked and composition of customers makes it profitable to have employees reflecting the ethnic composition of the customers. Thus within companies identifying with Diversity Management several categorisations of the migrant occur. Sometimes the migrant background is mainly perceived as an objective fact of employees background not ascribed certain business valuable or challenging
aspects, sometimes the migrant background is ascribed certain cultural needs and practices that requires certain management initiatives to create a well working staff and sometimes the migrant background is expected to represent a certain resource, that requires more or less management to become useful for the business. The different ways of categorising migrant employees thus seem to construct different kinds of challenges to and ways of management. Thus what we can learn from these examples is that even among small businesses identifying with Diversity Management, the migrant is categorised in several different ways that either highlight or dissolve the importance of the migrant background. The significance ascribed to employee’s migrant background is thereby not fixed but highly diverse and flexible. The last examples have not yet been analysed in relation to the owner-managers different life modes but the different categories and management of labour with a migrant background might, as in the preceding examples, usefully be analysed as life mode specific responses to branch and business specific challenges.

Anyhow, what the examples do tell us is that owner-managers identification with Diversity Management neither involves identical perceptions of the migrant as labour nor identical management practices. Further – linking to the first examples – managing employees with a migrant background, does not necessarily involve Diversity Management strategies. Thus within SME’s it is possible to observe several different modes constructing and managing employees with a migrant background.

**External relations and preconditions of recruitment**

In the following sections I open for the discussion of how to analyse and understand the coexistence and reproduction of all these different categorisations and positions of the migrant and modes of management. To do this I change the analytical perspective form the internal organisation of the businesses to their external relations and preconditions.

Looking at the external relations of the businesses, it is obvious that particular relations with the labour market are important in terms of the potential for migrant inclusion. All owner-managers draw on their particular networks when recruiting employees. To become an employee in these businesses is not a question of responding to advertisements in different kinds of media. Rather, it is about access to and participation in the networks from which employees are recruited. In general, due to segregation in Danish society, ethnic majority employers have less access to migrant
employees and migrants will mostly be disadvantaged when ethnic majority employers seek new employees.

What also seems to be common is the recruitment of employees through the local employment office. This relation of recruitment is present in most companies and does involve employees with a migrant background. The procedures seem to be that the employees are at first hired with partly financial support from the local authorities and only thereafter (maybe) fully employed and paid by the employer. From the perspective of the owner-manager this is potentially a financial benefit for the business. But the relation can also be regarded as a societal condition brought about by politicians to facilitate the inclusion of migrant labour on the labour marked. The organising of the unemployment system can thus be seen as the precondition that makes this dimension of recruitment in the businesses possible, while at the same time the initial public contribution to the wages, can be seen as a political strategy to meet and overcome potential resistance among employers against hiring of employees from a migrant background. This way of recruitment thus strongly anchors the management of the businesses in the very particular organisation of the Danish welfare society.

What I aim to point to here is this close relation between the unemployment system in Denmark and the procedures of recruitment on the labour marked. This link – which I will not develop further in this paper – is one of the state-mode specific conditions that make possible (part of) the recruitment on the labour marked and as such also interacts with or even disciplines managers and the functioning of the labour marked. In this perspective particular ways of recruitment reflects more general aspects of the structure and functioning of the state.

**External relations and preconditions of management**

In this section I will elaborate further on the relations between particular business practices and more general aspects of the state through a focus on yet another relation and precondition; namely the relations and preconditions, that makes the reproduction or change in the ideas of good management and formations of employees possible. Why do some owner-managers identify with Diversity Management while others do not? Did the knowledge of Diversity Management lead to the hiring of migrant employees among firms participating in the competition for the “diversity in work life” prize? Or was hiring of migrants an already existing practice that the owner managers
suddenly found possible to redefine as Diversity Management - and refine through ideas of Diversity Management? The preliminarily analyses of the cases form the competition seems to support the last assumption and thus indicates a dialectical relation between changes in management practice and management theory. As this part of my data is not yet fully analysed, I will question the reproduction and potentials of changes between management practices and new ideas of management by returning to an example form one of the first mentioned companies; TK Production.

When we first arrived at the company to do our fieldwork the youngest son, Bo, had just been hired as a consultant to implement Lean as a new strategy for efficient management of that part of the productions process that has to do with the fabrication of the products. The following reflect Torben, the owner manager and father, and Bo, the consultant and son, different reflections upon the Lean management strategy and its implementation.

Bo tells that a core element in Lean is the board meetings. It is like the cream. It is the place where progress takes place. The idea of the board meeting is that employees during the fabrication process continuously write their upcoming ideas to changes on the board and then the ideas are to be discussed on the board meetings where also Torben and other employees from the development section participates. But unfortunately, Bo tells, they (Torben etc.) often fail to turn up at the meetings and the meetings are therefore often cancelled. Bo complains that his father has not yet understood what culture and management is. Management is to make people work; to make people do the piece of work, that you as a manager defines, Bo says. So, as Torben is the manager he should, according to Bo, frame the work more precisely and manage to make sure that people wants to do the work in that particular way. As a manager it is his task, but Bo thinks Torben leaves the employees to themselves. People must be nursed and people are different, Bo says. Bo explains that his whole attitude towards Lean and how to run the business is based on his theoretical education and especially a particular book – and that this book focuses much upon values; on culture, which his father does not yet understand.

As already indicated Bo’s approach to management is conflicting with Torbens’. About the implementing of Lean Torben says that the former fabrication process was working well but based upon some more old fashioned principles that took too much space and store capacity. It was not
based on “smart theories” but developed through what he and other employees from time to time had found the most appropriate and easiest. He says that Bo has entered the business with knowledge about some new theories that he now uses in practice – and when Bo explains their way of working, Torben finds the ideas quite reasonable. The most important reason for Torben to implement Lean is the demands on the marked for access to control of fabrication processes and Lean seems to be a very qualified tool to secure this access. Further the management of employees that Bo places in the centre of Lean, does not have Torben’s interest. He very explicit claims that he does not meet the demands of modern ideas of management and that he does not intend to meet them as they do not have his interest. What he is concerned about is the costumers and the development of the products based on his knowledge about the costumers new and redefined needs. That is where he concentrates his management and most other tasks are delegated to other employees in the business. Based on experiences when he was formerly an employee himself, he ‘knows’ that a manager has to delegate and he believes that people are able to manage the tasks delegated to them.

What is interesting here is both that Torben accepts the implementation of Lean in TK production, but the implementation that he recognise is not identical with Bo’s broader version of Lean but only the parts supporting Torben’s already existing way of thinking management. He does not turn up at the board meetings. He does not want to be a “modern” employee manager, but leaves responsibility to those he trusts. Torben recognises the new ideas of Lean but in a way that fits into his already being practice as a manager. This exemplifies, like the former example of Diversity Management, that new theories of management might be implemented in businesses but also that the mode of implementation reflects the already existing mode of management. At the same time the presence of Bo and his eager not only to change the fabrication processes but also the management of employees might in the longer run change or replace Torbens mode of employee management. Also for the case of diversity management it is possible to imagine, that the theory in the longer run leads to further changes in practice.

Further interesting is the very different societal preconditions for Bo and Torbens different ideas of management. Where Torbens management practice is based on knowledge, he has attained through personal experiences from former jobs, his role as an owner manager and market demands then Bo’s management practice is first and foremost based on ideas from management theories. It is a
contrast between knowledge based on experiences and theoretically based knowledge. So where Torben’s ideas and practice presupposes his own personal experiences at the marked and the marked itself, then Bo’s practice presupposes management theories and the institutionalization of management learning. As such their very opposing but co-existing access to management anchor them in two different preconditions in the Danish society.

**State sanctioned ideas of management**

The preceding analyses have shown that different life modes of SME owner-managers are profoundly reflected in their different modes of management and constructions of labour. Further the analyses show that it is not the life mode it self that determines the particular mode of management and construction of labour but rather owner-managers the life mode specific perceptions of and solutions to their own, others and the business situations. The different categories of the migrant employee therefore not only reflect different life modes but rather life mode specific perceptions of e.g. the possibilities to recruit employees or to satisfy demands at the marked, in order to in the very end maintain a well run business; to reproduce their life mode specific way of living.

The analyses do not elaborate on why different life modes seem to appear within small enterprises and co-exist in society. As this very important question is discussed in other research (Højrup 1989, 1995; Buus 2001; Bernild 2003), I have chosen to follow another analytical track, in order to keep the attention on management and the different constructions of the migrant. The analyses show that the employees with a migrant background are constructed in several different ways. Even managers identifying with the same management theory – Diversity Management – do construct the migrant labour differently. This is not to say that management theories are without influence on management practice, but to say that the theories are understood and implemented into the businesses in accordance with the owner-managers life mode specific perceptions and use of this theory.

Thus the analyses also points to the meeting of different ideas of management as a potential relation of change and thus as a place to study change and resistance (Taylor 1981). As a consultant and a manager, Bo and Torbens competing perceptions of management call for two different preconditions in society that they are not themselves in charge of but rather mutually dependent on;
the marked and the institutionalising of management learning. Their ideas of management thus presupposes a society, where the economy is organised in a marked that is both able to reproduce itself while at the same time develops in close relation to other institutions in society; the educational system and as also mentioned the unemployment system. Managers’ identification with Diversity Management and the recruitment of labour through the public unemployment system also anchor the management and constructions of the migrant firmly in the societal context. Researching for preconditions for management thus calls attention to the organisation of society and potential competing ideas and practices.

But how do we understand the way society is organised, the constructions of the migrant as different kind of labour, and that some perceptions of management become more powerful than others. According to Lorbiecki (2001) Diversity Management reflects a change in organisational response to workforce heterogeneity from resistance and discrimination towards access and legitimacy to today’s learning. This is to some degree true, but Diversity Management is not succeeding a period, where all migrant labour was excluded from employment, it does not erase other ways of including migrant labour and it does not prevent ongoing discrimination. In other words Diversity Management is a theory of management coexisting with other theories, ideas and practices of management. As we have seen employment of migrant labour relates to several different modes of management and the employee with a migrant background is subjected to categorisation flavoured and not flavoured by the category of ethnicity. In other words the migrant labour is subjected to multiple and changing categories.

The above mentioned examples show the co-existence of different perceptions of good management as well as different perceptions of the right source to management knowledge. Lean and Diversity Management are theories developed later but now seem to challenge than the existing and experienced based management practices. But how come that these new theories of management can challenge elder and well established ways of managing and thereby enlarge or change the categorisations of migrant employees?

My theoretically based thesis, that needs further empirical investigation, is that the power of these new management theories reflects the very specific way that the Danish state tries to combat what it conceptualises as globalization (Kaspersen 2005). The knowledge society and the innovation
economy have been developed as strategies to combat the challenges of globalization (Christensen 2009; Korsgaard 2004). These challenge both calls for businesses to become knowable and innovative and for employers to be knowable and innovative. Lean and Diversity Management are both theories that, at a theoretical level, offer a (re)definition of the unskilled worker and the excluded migrant. From being a too wage-intensive labour force, labour in fabrication become innovators. From being excluded from employment due to lack of language skills and different cultural needs, the culture of the migrant labour is now constructed as a potential to innovation. The new management theories thus create a new way to categorise the migrant labour, making the flexible ways of employing the migrant even boarder. Coexisting with the other categories of the migrant, Diversity Management becomes a category that facilitates the inclusion (and exclusion) of migrant labour as the need for labour changes. Further the political organisation of the unemployment system can be seen as a state mode specific way to support and speed up not only the flexible inclusion of the migrant but also to construct and broaden the managers’ perceptions of the migrant as labour. Also the political claim on applied science, the restructuring of research institutions and their finances that has taken place within the last 10 years in Denmark can be seen as a political recognition of certain modes knowledge as true knowledge. It is in this context that the power of management theories develops to combat experience based knowledge.

The bottom-up perspective can thus be turned round and the same relations and processes seen from a state-perspective as a state internal strategy to combat what it sees as challenges of the global marked. Taken even further this means that changes in the state to state internal competitions for sovereignty give rise to state internal changes in the definition of the appropriate economy, management and labour force. The enlargement in the conception of the migrant form a “problem” to a “potential resource” reflects this change. In this top-down perspective modern management, new ideas of management and conceptualisations of labour is seen as particular practices recognised by the state as universal means to maintain a competitive workforce and economy.

The perspective turns the bottom-up analytical perspective round, and investigates the different modes of management as sanctioned by the state; the sanctions of the state becomes a way to subject and form managers and labour to the kind of good management and good work force, that the present challenges of interstate relations demand.
The term migrant is chosen to refer in general to people form a migrant background; 1st, 2nd, or 3rd generation immigrants.

See John Wrench (2003) for a critical discussion of the social consequences when inclusion of migrant labour on the labour marked is left to the businesses.

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WS1.2-3 Abstract:

‘CSR, work environment and trust creation in SMEs. Impact of ethical behaviour on firm level work environment’
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Values and ethics have turned of increased significance in companies all over the world during the last decades (Paine 2003). Responsible business practices have developed from mainly being charity activities within large firms to cover internally as well as externally oriented initiatives carried out in large as well as smaller firms. Such practices can be more or less formalised either as documented Corporate Social Responsibility (CSR) and i.e. part of Global Compact scheme, or it can be voluntary social or environmental responsible performance outside any formal account.

Although some economists might argue that CSR is only to increase profit (Friedman 1970), other researchers include more and comprehensive drivers for responsible business practices (Jenkins 2004, Moore & Spence 2006, Paine 2003, Spence & Rutherfoord 2003), and argue that some companies might mainly engage in CSR for ethical reasons. This seems even more to be the case for small companies where especially owner-managers are more likely to give emphasise to ethical values and behaviour (Morsing & Valentin 2008, Spence & Rutherfoord 2003). However, the CSR literature is dominated by a focus on large firms. Within this century, contributions on CSR and SMEs have emerged, but the area can still be characterised as weakly researched (Jenkins 2004, Moore & Spence 2006, Spence & Rutherfoord 2003). More knowledge on understanding of CSR in SMEs is required.

Concurrently, firms are increasingly under demand for continuous upgrading of their production, products and performance (B-A Lundvall 2000, Tidd, Bessant and Pavitt 2001). Successful upgrading and innovation in modern firms requires –along with other factors– well working organisational learning with a high level of information exchange and knowledge sharing in the organisation (Bessant & Venable 2008, Nonaka & Takeuchi, 1995), which again necessitates a well working social infrastructure with trustworthy social relations (Arena, Lazaric and Lorenz 2006, Hirsch and Gellner 2001, Leonard-Barton 1995, Schein 1992/1997). Social trust has become more important for upgrading organisational performance along with the change away from Tayloristic-controlling kinds of management (bachmann and Zaheer 2006) within the knowledge economy.

This paper argues that CSR-activities can take part in improvement of psychosocial work environment and trust-creation and hence upgrading and innovation abilities especially in small firms. With point of departure in an empirical study of relation between CSR and work environment in Danish SMEs, the paper illustrates how CSR-activities hold prospects of positive impact on specially the psychosocial work environment. Particularly in small firms, CSR activities are directed at employees (Gallup 2005) and directly and indirectly affecting human relations and work environment. However, small firms have difficulties with using their CSR activities strategically (Boesby et al 2008). The paper argues how different kinds of SMEs can benefit from a more strategically directed CSR approach and strengthen prospects for upgrading their psychosocial work environment, support organisational functioning and trust building.
Paper

CSR, work environment and trust creation in SMEs.
Impact of ethical behaviour at the firm level.

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Abstract
Ethical and responsible business practices have developed from covering external commitments to comprising firm-internally oriented initiatives in large as well as in smaller firms. Such practices can be more or less formalised either as documented Corporate Social Responsibility (CSR) or informal and voluntary socially or environmentally responsible performance.

Previous research shows that especially small companies mainly engage in CSR for ethical reasons, and informal relations widely dominate their organisational functioning. A recent study of the relation between CSR and work environment in small Danish enterprises illustrates how CSR appears as having a positive impact on the psycho-social work environment. Linking these findings with literature of trust and organisational learning, this paper argues that by maintaining psycho-social conditions, CSR-activities contain prospects for impacting organisational trust and strengthen the functioning of informal relations, as well as the quality of organisational performance especially in small firms.

Key words
CSR, small enterprises, work environment, trust

Introduction
Small and medium-sized companies have importance due to their quantity, number of employees and in many OECD countries also from their economic significance (Jenkins 2004). The understanding of large companies can not necessarily be used to understand small firms. They are
not just small large firms, but have their own agendas, different kinds of management and handling issues, other ways of behaving and distinct problems – i.e. ethical business practice has frequent priority (Spence and Rutherfoord 2003). Some small firms recognise their ethical behaviour as Corporate Social Responsibility (CSR), but many small firms, although having corresponding activities, do not acknowledge these as CSR (tns-Gallup 2005). Small firms are also more informally organised and have wider problems in their work environments (Sørensen OH, Hasle P, Bach E. 2007) concurrently with that psycho-social work environments in general face increasing problems (Pejersen J.H., T.S. Kristensen 2009). To improve small enterprises’ way of coping with their specific challenges, better destined research directed at this group is required. Also the CSR literature is dominated by a focus on large firms. A more diverse understanding of small firms as well as their motives for CSR-engagement is still lacking (Jenkins 2004).

Concurrently, small as well as large firms are under pressure for continuously upgrading their production, products and performance to stay competitive (Tidd, Bessant and Pavitt 2001). Successful upgrading and innovation in modern firms requires –along with other factors– well working organisational learning with a high level of information exchange and knowledge sharing in the organisation (Nonaka & Takeuchi, 1995), which again necessitates a well working social infrastructure with trustworthy social relations (Arena, Lazaric and Lorenz 2006, Hirsch and Gellner 2001, Leonard-Barton 1995, Madhoc 2006). Social trust has become more important for upgrading organisational performance along with the change away from Tayloristic-controlling management (Adler & Hecksher 2006, Bachmann and Zaheer 2006) within the knowledge economy.

On the background of an empirical study of relation between CSR and work environment in small Danish enterprises, the paper illustrates prospects of a positive impact from CSR-activities on especially the psychosocial work environment. Linking these findings with theories of organisational trust and learning, the paper argues that a sound psycho-social work environment is required to create high-trust dynamics that are more vital for mainly informally organised enterprises. However, management cannot decide trust to be present; they can only enhance the conditions for its creation (Long and Sitkin 2006). Firm-internal CSR activities directed at employees can be part of such an emphasis with prospects of supporting organisational functioning and development, particularly in small firms.
This paper intends add to the under researched area of understanding small firms and CSR by addressing a) the relationship between CSR and work environment and b) the prospect for impact of CSR on trust creation and organisational functioning and development.

**Research and conceptualisation**

This section highlights previous research and conceptualises the main pillars of our analysis: CSR and small companies, and the relation between psycho-social work environment, trust and organisational development.

**CSR**

During recent decades, we have seen an increased significance of values and ethics as part of business strategies (Paine 2003). Responsible business practices have developed from mainly being charity activities within large firms to cover internally as well as externally oriented initiatives carried out in large as well as smaller firms. Such practices can be more or less formalised either as documented Corporate Social Responsibility (CSR), i.e. as part of the UN Global Compact scheme, or they can be voluntary social or environmental responsible performances outside any formal account.

Central debates within the field of CSR concern what motivates and drives companies to manage and act according to CSR principles. Many researchers include various and comprehensive drivers for responsible business practices (Jenkins 2004, Moore & Spence 2006, Paine 2003, Spence & Rutherfoord 2003) arguing that some companies might mainly engage in CSR for ethical reasons. Paine (2003) has divided drivers for engaging in CSR into four main areas: Risk management, organisational functioning, market positioning and civic positioning. She mentions a fifth driver, ‘the better way’, connected to just being an honest and good citizen without further explanation. Paine developed these drivers with large firms in mind. To consider the drivers and the impact of CSR in small companies, we must turn to recent research attending the specific characteristics of small and medium-sized enterprises (SMEs) and their practices of CSR.
SMEs

Previous research shows that SMEs have common characteristics that distinguish them from large firms. They are often owner-managed (Beaver 2003), and the organisational distance is short and execution of decisions and operation is less formal than what is typical for large firms (Masurel 2007). They work more unsystematically and short sighted because they have fewer resources to meet challenges (Jenkins 2004, Masurel 2007, Spence and Rutherfoord 2003). Due to the lower formalisation, informal relations are more critical for the organisational functioning and make the small firm more dependent on social relations and trust (Granerud 2006). Concurrently, SMEs have more risks and problems in their work environment compared to large firms (Sørensen OH, Hasle P, Bach E. 2007). Despite these common traits, small firms are not a homogenous group. They consist of very different kinds of production and organisation, i.e. connected to whether it is a high tech trade or a cleaning company. The way owner-management is carried out also varies greatly. Management might build on paternalistic attention and control in some traditional family-owned businesses, or be more open for employee involvement and participation i.e. when depending on self-organised employees or when owners take part in the production.

CSR in SMEs

Ethical business practices frequently have priority in SMEs, and particularly owner-managers are more likely to give emphasise to ethical values and behaviour (Morsing, Valentin and Hildebrandt 2008, Spence & Rutherfoord 2003). Although contributions on CSR and SMEs have emerged within this century, the area can still be characterised as under researched (Jenkins 2004, Moore & Spence 2006, Spence & Rutherfoord 2003). Referring to Paine’s generated drivers for value-driven business practices, previous research characterises motivation for CSR in SMEs as a wish for acting responsibly in regard to the local community (Moore and Spence 2006) and hence an example of Paine’s notion of ‘civic positioning’.

Due to informal relations widely dominating organisational functioning in small firms, they are more likely to perform without explicit guidelines. Although ethical guidelines are more frequent in larger firms (Paine 2003) and larger firms are more formalised, they are not necessarily more ethical than smaller firms. Especially small companies might mainly engage in CSR for ethical reasons (Jenkins 2004) and ethical motives are the most frequent explanations for CSR engagement in owner-managed SMEs (Morsing & Valentin 2008, Morsing, Valentin and Hildebrandt 2008,
Spence & Rutherfoord 2003). The ethical motives are conceptualised in Paine’s term ‘the better way’.

Particularly small firms target CSR activities at employees (tns-Gallup 2005). Research shows that responsible business practices in SMEs are dominated by activities that cover upgrading of competencies, improving working conditions and relations, aiming at creating a mentally and physically healthy work conditions (Jenkins 2004, Kramer et al 2005, Moore & Spence 2006, tns-Gallup 2005). This is a less articulated, less intentional motivation for implementation, more indirectly embedded in ‘organisational functioning’ in Paine’s understanding. Summing up on Paine’s drivers, research shows that the fifth pure ethical driver prevails among SMEs. ‘Civic positioning’ and ‘organisational functioning’ are also very relevant, while risk management and market positioning seem of less importance (Morsing, Valentin and Hildebrandt 2008). However, organisational functioning can be regarded as covering both more or less explicit motives for engaging in CSR.

Organisational development and trust in small companies

Organisational development requires a high level of information exchange and knowledge sharing (Nonaka & Takeuchi, 1995). Prospects for organisational development depend on transmission of knowledge and organisational learning through formal as well as informal communication channels in the organisation (Granerud 2006, Madhok 2006). Formal organisational communication takes place through explicit guidelines and predetermined communication routes and creates possibilities for transmission of knowledge, i.e. guidelines of informing superiors and meetings where employees are expected to forward information. Informal communication practices – shaped by personal relations, together with expectations and feelings in the organisational culture – determine the quality and the amount of the transmission. The organisational culture influence whether employees feel engaged to participate, adding views and experiences, with an expectation of being taken seriously; or they find it is not worthwhile forwarding issues, trying to hide incidents or even display counter-productive behaviour (Knights and Roberts 1982). Following cultural theories and organisational theories of trust, the process of transforming individual knowledge to organisational learning is shaped by the social relations and trust in the organisational culture because these impact willingness and motivation for participation and collaboration, and for transmitting and sharing knowledge (Arena, Lazaric and Lorenz 2006, Hirsch and Gellner 2001, Leonard-Barton 1995,
Ellström 2001, Fox 1974, Morsing 1999, Weick and Westley 1996). Trustworthy social relations have a crucial impact on the extent and content of communication and thus for whether individual knowledge will be institutionalised in the organisation and generate organisational learning (Ellström 2001, Madhoc 2006, Weick and Westley 1996). Organisational trust has increasingly become important for the social infrastructure and upgrading of organisational performance in any kind of firm.

Whether the organisational practice supports the objectives behind or there is a counter-productive behaviour between management and workers is connected to the presence of high- or low-trust dynamics in the organisation (Fox 1974). Management can decide about the formal relations and communication routes, but management cannot determine the informal relations. Management can only encourage a certain behaviour that emphasises respect, dialogue and positive expectations - prerequisite for creation of organisational trust where employees are likely to take responsibility and initiatives also outside formal tasks (Long and Sitkin, 2006, Granerud 2006). Paternalistic hierarchical and controlling management forms fail to activate the potential knowledge base in the firm (Adler & Hecksher 2006, Bachmann and Zaheer 2006, Madhoc 2006). Such management forms might still be prevailing among a number of SMEs. However, other SMEs perform more collaborative types of management, more likely to produce high-trust dynamics. The high-trust dynamics in mind are not based on loyalty and duty, but relates to a more dynamic organisational environment based on trust of intentions (Adler & Hecksher 2006, Granerud 2006). Particularly within small firms dominated by informal work practices, presence of high-trust dynamics can strengthen functioning of the informal relations that again to some extent can substitute weak formal routines in organisations with short organisational distance (Granerud 2006). Mutual trust of intentions can enable exchange of knowledge and experience, especially important regarding sensible areas like i.e. transmission of mistakes and doubtful decisions. Trust of intentions can support a dynamic organisation that facilitates collaboration and change in environments under increasing complexity and uncertain circumstances (Adler & Hecksher 2006, Granerud 2006).

CSR is regarded as a management practice that can be embedded in as well more paternalistic or more collaborative features.
The Danish Study

The relation between CSR-activities and work environment in small firms has been examined in a Danish study from 2007 to 2008. The purpose of the study was to investigate the possibility to use CSR strategies to improve work environment in small firms. The study built on the hypothesis that CSR could add to managements’ voluntary engagement to improve work conditions and work environment in small firms and that due to the typically informal management of small firms, the voluntary nature of CSR is more attractive and manageable for them to work with than formalised law compliance.

Investigation method

An explorative investigation approach with qualitative research methods searching for understandings was found adequate due to the aim of finding meanings in a new field. The investigation has been divided in three parts:

a) A review of previous research on the area.

b) Qualitative interviews with key CSR professionals representing different interests in the Danish context.

c) Visits in 21 small firms within three industries and interviews with employers and employees.

Small enterprises were defined as firms with less than 50 employees, leaving out medium-sized enterprises in the European understanding. Work environment was comprehended broadly covering physical risks as well as psycho-social aspects. CSR referred to the EU definition:

A concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis. (European Commission 2001).

a) The literature study consisted of a systematic search in international databases for literature on the key words ‘CSR’, ‘work environment’ as well as ‘small enterprises’ and related key words. It appeared impossible to distinguish between small and medium-sized enterprises. Covering the three key issues, only 11 articles appeared. To enlarge this small sample a few related studies was added generated through knowledge in the research group. As an example the Danish People & Profit Project that has generated three investigations around CSR in Small and Medium-Sized Danish enterprises. This material was included in analysis of work environment impact of CSR.
b) The investigation of the position among key stakeholders to linking CSR and work environment consisted of 10 semi-structured interviews with key persons from three groups:
1) Public authorities and organisations,
2) Labour and employers’ organisations,
3) CSR managers in three large firms requiring CSR from their small suppliers.

The interviews aimed at exploring the position to and experience with CSR in small firms, through their perceptions and expectations, and initiatives connected to CSR. The interviewees in the large firms had experience or views on the impact of their CSR requirements in their sub-suppliers. These understandings were supplied by observations in one information meeting on CSR held in collaboration between an employers’ organisation and the public CSR promoting project, People and Profit.

c) The investigation of CSR in the 21 small firms was carried out as a combination of qualitative interviews and observations. The firms were selected within companies with between 10 and 50 employees, where management had some ideas about or shown interest in CSR. The firms were found within three industries: Hotel and Restaurants, Industry, and Transport. A previous quantitative study of CSR activities in Danish firms has showed that among the seven different industries with the largest impact on the Danish economy (Kramer et al 2008), small firms in these three industries had most CSR activities directed towards employees (tns-Gallup 2005). The presence of employee directed CSR was expected to increase likeliness of finding impacts on work environment. In each firm at least one manager and at least one employee, often the shop steward or safety representative, was interviewed from a semi-structured guideline. In three cases employees were interviewed in the presence of their managers. The semi-structured interviews explored whether and how small enterprises recognize relations between CSR and work environment, how they work with CSR in practice and their prospects for improvement of work environment through CSR initiatives. After the interviews the shop floor area was presented and added to the impression of the firm.

All interviews were recorded and used for dividing the perceptions schematically in an analytic table. Notes from the observations were added to the table. The tables were analysed by NVivo7, in
categories connected to Paine’s notion of drivers and rationale of CSR-activities. The specific CSR-activities were coded in seven categories (following Ashridge Centre for Business and Society, see Results a)). The analyses also divided the field material in rationales behind CSR and catalysts for CSR.

**Results**

The material was examined by seeing CSR as a management strategy to improve work environment and organisational culture as well as employee activities or ways to reduce risks at the work place.

a) The literature review aimed at answering: What perspectives are present in earlier research regarding CSR and work environment in small enterprises?

The literature study confirmed that the area is scarce researched. Of the 11 found articles, only seven articles were peer reviewed, covering the key words. The main points of the articles were that it is difficult to use the CSR concept in small firms, because it is developed for large firm. CSR activities in small firms are motivated by different rationales than in large firms. Small enterprises are widespread engaged in improving employee conditions, but they are less likely to codify the engagement in formal policies. This implies that research on CSR has to be executed differently in small firms (Boesby et al 2008).

The previous Danish research on CSR in small firms had divided the CSR activities in seven categories: Visions and values, Customer activities, Employee activities, Supplier activities, Stakeholder activities, Societal activities, and Environmental activities (Ashridge 2005). Especially the ‘employee activities’ were expected relevant for the work environment. However, the other categories also holds potential for affecting the work environment.

The result of the following two empirical investigations, b) and c), cover understandings of CSR and work environment, reflected among key stakeholders and in small enterprises that by various reasons are interested or involved in CSR. The results have to be comprehended on its time limited premises and as a preliminary step into a new research area, linking CSR-activities and work environment in small enterprises.

b) The enquiry among CSR key persons in organisations and enterprises aimed at answering:
What perspectives dominate important stakeholders on CSR and work environment in small enterprises?

The interviews with the organisations show that the concepts of CSR and work environment are intended in various directions connected to their particular interests. The three investigated large firms all had explicit CSR-requirements expected to impact the work environment in their sub-suppliers. However, the large firms do not control the implementation which makes it difficult to assess the impact. A large public organisation use CSR-requirements as a way to implement social and welfare politics (Boesby et al 2008).

c) The study in the small firms aimed at investigating: What perspectives do managers and employees have on CSR and work environment in small enterprises? What types of work environment conditions are relevant for CSR? Are CSR activities with impact at the work environment more relevant for particular types of small enterprises? Why do small firms involve in CSR related work environment issues?

The result confirmed that many small firms had activities that can be regarded within the frame of CSR and work environment, but also that they rarely use the term CSR before their large customers require them. The CSR-activities were in general found directed at employee health in a broad sense and the psycho-social work environment. The motivation for CSR-engagement is generally connected to retention of employees. The small firms seem likely to utilise responsible practices indirectly to increase employee satisfaction, motivation for individual engagement and collaboration, and strengthen social ties as well as attracting and maintaining qualified labour and reduce absence. The most reported activities were directed at the psycho-social conditions. This can also be related to the focus of the investigation on voluntary initiatives. The physical work environment to a large extent is regulated through legislation in Denmark. The psycho-social impact was highlighted as important particularly for firms in the service sector, found in two of the investigated three industries: namely transport, and hotel and restaurants. The psycho-social work environment was mentioned as important for the quality of the product, especially in cases where employees had direct customer contact. (Boesby et al 2006)

Ethical and value based reasoning, ‘the better way’, were highlighted as internal motives. Internal motives related to organisational functioning were more prevailing in firms with organisational changes. Supplier demands or expectation of CSR engagement and information through industrial
networks were external circumstances. Small firms often initiated CSR-activities ad hoc, as a result of combined incidents, internal emerged needs concurrently with external propositions or demands. They generally do not use the activities strategically.

All in all, the study indicates that managers and employees in small firms see a positive relation between CSR activities and the work environment, mainly related to the psycho-social conditions. This is more dominant in service oriented enterprises. CSR activities seem particularly appropriate to impact the soft side of work environment, which is also the most difficult part to regulate through legislation. Nevertheless, it is difficult for the small enterprises to take advantage of their CSR activities as a business case and develop their use strategically. The potential of CSR is not exploited because the engagement is incidental (Boesby et al 2008).

**Discussion and perspectives of CSR in small firms**

Previous research shows that the main part of CSR engagement in Danish SMEs is directed at employee activities to create physically and mentally healthy work conditions. Concurrently, international research highlight that small firms are likely to behave from ethical reasoning, although in a less formalised way, connected to the prevailing more informally dominated organisations. In this relation it is also important distinguishing between small and medium sized companies, because domination of informal relation can only be expected in relatively small firms. The medium sized firms necessarily need a more formalised organisation to operate. This paper has been concerned with the relation between CSR, work environment and trust, and its further prospects for impact on enterprise development in small companies with less than 50 employees.

Due to the importance of informal relations and the short organisational distance in small firms, trust is likely to contain a special opportunity for the organisational functioning in this group of firms. High-trust dynamics and trust of intensions can strengthen the function of informal relations, and to some extent be an alternative for weak formal decision structures. Trustworthy social relations support employees taking initiative and action when required, instead of waiting for instructions and orders from superiors. High-trust dynamics reduce fear of failure and support attitudes towards sharing knowledge and experience. Hence, it is regarded as productive for understanding impact in small enterprises to distinguish between different types of management. Although often, but not always being managed by the owner, management in small enterprises
varies greatly, i.e. building on hierarchical or paternalistic features, or shaped by mutual expectations of positive intentions. The management form is crucial for whether the firm-internal trust is able to substitute uncertain formal structures and support upgrading of organisational performance. Hierarchical forms are less likely to enable change compared to more collaborative kinds of management.

The Danish study has showed that small firms have a range of activities that can be characterised within the frame of CSR, although they do not recognise the activities as CSR, and the reasons for CSR engagement were primarily ethical – confirming previous research. The study demonstrated that civic positioning and organisational functioning are also important motives, the last mentioned primarily in firms with organisational changes. The study illustrates that small firms have CSR-activities relevant for the work environment, particularly directed at the psycho-social area, and more dominating in service industries.

The psycho-social work environment is particular critical for the organisational functioning and development in mainly informally organised small firms. Maintaining positive psycho-social conditions hold prospects for strengthening firm level trust creation and high-trust dynamics and communication practices, supporting organisational functioning through the informal relations. Thus, organisational function can be regarded as a driver for CSR in Paine’s understanding, as well as an outcome of improved performance.

The mentioned prospects for a beneficial outcome of firm internal CSR activities on firm performance and development, illustrate the potentials for a more strategically use of CSR in small firms. Particularly in firms with collaborative management, and in service companies, CSR contains prospects for improving the business as well as the conditions for employees. However, CSR can only strengthen present positive spirals high-trust dynamics, it cannot change low-trust dynamics.

Although the Danish study of CSR and work environment has showed a positive impact on particular the psycho-social work environment, assessing the benefit of CSR in small firms requires taking wider and more distinct characteristics of the single enterprise into account, i.e. the management form, the kind of industry, differentiation of size, various kind of owner-management and other aspects that determine the diversity of this group of companies. The Danish study pointed
at lack of research on the area. There is a need for deeper insights in what impact behaviour and performance in various types of small enterprises, to examine the value of ethical behaviour and CSR for the firm-internal work conditions concurrently creating pathways to development of small enterprises.

**Conclusion**

Small firms have significance for the work conditions of the main part of employees and for most national economies, but small firms, their characteristics and management, lack research. Concurrently impact of CSR has mainly been investigated connected to large firms but has recently gained growing attention among researchers of SMEs. This paper has added to the understanding of ethical behaviour in small enterprises and its impact at the firm level.

Referring to related literature, the paper has showed that small firms differ from large firms by being more ethical engaged. Firm-internal and employee directed activities seem to be the most attractive kind of CSR in small enterprises. Concurrently, small firms work more unsystematically and are more informally organised, they generally do not use guidelines or CSR strategically. This paper has furthermore applied theories of organisational trust and culture to demonstrate the impact of management practices and the psycho-social condition on high-trust dynamics and knowledge sharing. Trust of intentions is particularly important for informal organisational practices and hence for support of organisational functioning and learning.

Building on a recent qualitative Danish study of CSR and work environment in small enterprises, this paper has examined the prospects for CSR in small enterprises. The study demonstrated that firm-internal CSR-activities are prevailing in small firms, although they often do not entitle these as CSR. It also showed that the employee directed CSR activities were relevant for the work environment, less relevant for managing specific risks, maintained by legislation in Denmark, and more directed at health and the psycho-social work environment. Furthermore in small service companies where employees had direct customer contact, the psycho-social work conditions were especially emphasised because these were regarded as vital for the quality of the product by the management.
Combining previous research with the recent study, the paper has argued that the psycho-social work environment is of importance not only for the well-being of the employees but also for trust and functioning of informal relations, which again are critical for knowledge sharing and learning. Hence, firm-internal CSR-activities maintaining the psycho-social conditions hold prospects for the impact of firm level trust creation with wider prospects for organisational functioning and firm development particularly in small firms. The special prospects for gain within the psycho-social work environment as for the organisational performance and development could be an argument for the advantage of a more strategic use of CSR within this group of firms.

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WS1.2-4 Abstract:

‘Socially responsible stakeholder management and performance in foreign markets: an SME perspective’
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Can engaging in CSR in the form of socially responsible stakeholder management in Dutch SMEs’ foreign subsidiaries result in improved market performance? When practices with respect to stakeholder relationships management are transferred to foreign subsidiaries, these practices most probably need to be adapted to the foreign institutional environment. Furthermore, the range and content of these practices most probably will vary across sectors.

Objectives of this research are to establish (1) whether and under what conditions transfer of CSR practices directed at key stakeholder groups may result in improved market performance, (2) whether there are differences in range of stakeholder groups and CSR practices between market-seeking companies and efficiency-seeking companies.

The conceptual model links effectiveness of stakeholder practices transfer to market performance moderated by institutional distance and adaptation to the foreign institutional environment on the other hand. This conceptual model is built up from three theoretical perspectives: the stakeholder and resource-based view of the firm and institutionalism.

First, a survey will be held amongst Dutch SMEs owning a subsidiary in Eastern Europe to establish the relationship between investment motives and range of relevant stakeholder groups and applied stakeholder management practices. Based on the survey results, case studies will be carried out among firms in different industries to gain in-depth knowledge of the processes involved in transfer of socially responsible stakeholder management practices.
Anticipated results are (1) that socially responsible stakeholder management practices will affect market performance favourably, (2) but more so for market-seeking companies since these are expected to apply a wider range of key stakeholder groups and of stakeholder practices.
Abstract
Will multinational SMEs use internationalisation to achieve labour cost savings at the expense of employees both in their home country and abroad or will they transfer their existing employee-oriented practices to their foreign subsidiaries? This paper argues that the answer to this question is affected by: (1) the salience of employees at home as well as abroad to management; (2) the type of employee-relations arrangements in use within the company; (3) the capability to develop and use high-performance human resource instruments for employee-oriented CSR practices; (4) the capability to adapt the type and design of high-performance human resource instruments to the local institutional environment; (5) the extent to which the multinational SME possesses institutional capital. Multinational SMEs with slack resources, a high degree of institutional capital, and to which employees are highly salient, are most likely to transfer employee-oriented CSR practices abroad and to do so successfully.

Key words
Multinational small and medium-sized enterprises, corporate social responsibility, employee relations, international transfer of practices, human resource management

Introduction
In May 2004, eight countries in Central and Eastern Europe join the European Union. By that time some 150 Dutch transport companies, including small and medium-sized enterprises (SMEs) have acquired subsidiaries in the countries concerned. That way, they could profit from truck drivers from these low-wage countries to carry out transport jobs all over the European Union (EU). East European truck drivers replace up to an extent expensive Dutch truck drivers as they earn much less for the same job content, work longer hours and carry part of entrepreneurial risk as they may be
fined if, irrespective of circumstances, they do not complete their ride in time. If East European truckers complain about their working conditions, they are invited to quit (Hensen, C. 2008). The above mentioned practices highlight the importance of a hitherto greatly neglected aspect of corporate social responsibility (CSR), namely, the position of employees as internal stakeholders of small and medium-sized enterprises (SMEs) in an international context. This paper addresses the issue of international transfer of socially responsible, employee-oriented practices by multinational SMEs to subsidiaries in transition economies. The objective of this paper is to identify the ways that could possibly fill this gap in the literature.

The continuing process of globalisation and regional economic integration has increased the freedom of companies to act socially irresponsibly. Fears that this may lead to a ‘race to the bottom’ with respect to labour rights and care for the environment have led to wide-spread protests, which in their turn have stimulated the rise of corporate social responsibility (CSR) as management concept (Crane, A., Matten, D., & Spence, L. J. 2008; van Tulder, R. & Zwart, A. 2006; Vogel, D. J. 2005). In academic circles, CSR has received wide-spread attention and has been the subject of extensive research, see e.g. (Lee, M. P. 2008). However, the issue of transferring socially responsible practices aimed at employees within multinational corporations, let alone multinational SMEs, has received virtually no attention. Mankelow (2008) states that social responsibility focused on employees in SMEs is an almost unexplored area. This is remarkable as quite a number of authors indicate that to SMEs employees are (one of) the most important stakeholder group(s), see e.g. (Hammann, E. M., Habisch, A., & Pechlaner, H. 2009; Jenkins, H. 2006; Spence, L. J. 2007).

This raises a number of questions with respect to the possible obstacles to the transfer of socially responsible employee-oriented practices; the more as numerous studies address the international transfer of human resource management (HRM) practices within multinational corporations (Smale, A. 2008). It is generally argued in the HRM and institutional literatures that value-laden practices are very hard to transfer successfully. This then certainly holds for socially responsible employee-oriented practices, which are explicitly value-laden. Transfer of these CSR practices to foreign subsidiaries is intended to replace the usual practice and order of the host country institutional environment by new ‘rites and rituals’ that have originated in the parent company’s home-country institutional environment (Czarniawska, B. & Mazza, C. 2003). Thus, within the foreign subsidiary a need for interpretation of the new practice and order is created, the outcome of which is uncertain. However, uncertainty may also be created by the nature of the knowledge embodied in CSR practices aimed at employees. In general, there is a large component of tacit knowledge in HRM

Finally, it is argued in the literature that successful implementation of CSR by a company needs an authoritative champion within the company. For SMEs, this will mostly be the owner-manager or a senior member of top management (Jenkins, H. 2006). This necessitates the presence of such a person within the subsidiary’s management as well. He/she should be able to affect employees’ perception and interpretation of the new practices – these new ‘rites and rituals’ – in such a way that these practices are not only implemented but are internalised as well.

Consequentially, this paper’s research question is: What elements should be part of an explanatory framework for transfer of socially responsible employee-oriented practices by multinational SMEs to subsidiaries in transition economies. In this paper a multinational enterprise is defined as a firm “that engages in foreign direct investment and owns or controls value-adding activities in more than one country” (Dunning, J. H. 1992: 3). For SMEs, the EU definition is adopted: SMEs are autonomous enterprises employing no more than 250 employees (European Commission 2003).

The remainder of this paper is divided into four sections. In the first section, I consider the position of the stakeholder view in the field of CSR theory. Special attention will be given to employees as stakeholder group. Employee-oriented CSR practices are to be designed based on employees’ needs and interests as starting point. This normative starting point is its essential point of distinction with traditional HRM strategies which are essentially instrumental in nature, taking the effect of HRM practices on firm performance as starting point. Nonetheless, employee-oriented CSR practices will materialise in HRM strategies and practices. Accordingly, the second section presents the common grounds of the HRM and stakeholder view literatures. It will be argued that developing and implementing an employee-oriented CSR strategy requires efforts by both employer and employees on the basis of trusting relationships.

The fact that employee-oriented CSR strategies are not as much instrumentally as normatively based makes consideration of the institutional environment imperative. Quite a few authors argue that, in order to identify the opportunities for and the obstacles to transferring HRM strategies and practices, a combination of the national business system approach and the new institutionalist approach is most fruitful, see e.g. (Ferner, A. & Quintanilla, J. 1998). The implications will be discussed in the third section. The focus of research in all of the relevant literatures has been on
large corporations mainly. In the final section, therefore, a conclusion will be presented in the form of an overview of the possible implications for transferring employee-oriented CSR strategies and practices by multinational SMEs. Finally, some practical implications will be indicated for multinational SMEs.

The stakeholder view in CSR theory
Over the past decades, not only large corporations have become more internationalised, but also SMEs. More and more SMEs establish subsidiaries abroad (European Communities 2004; Hollenstein, H. 2005). Contributing factors are the improved access to information and communication due to technological progress, the decrease in transportation costs, the increased competition resulting from market liberalisation, and, in Europe, the recent enlargement of the European Union (European Communities 2004; Hessels, S. J. A. 2004). The most important motives are access to new markets and location advantages such as low wage costs and access to local resources (Hessels, S. J. A. 2004; Hollenstein, H. 2005).

As stipulated in the introduction, the negative consequences of internationalisation and globalisation have given the corporate social responsibility movement its present momentum. However, modern academic debate on corporate social responsibility already started off with the publication in 1953 of H.R. Bowen’s book ‘social Responsibilities of the Businessman’ (Carroll, A. B. 1999; Garriga, E. & Melé, D. 2004; Lee, M. P. 2008). During the first decades, theorising centred on the impact of engagement in CSR on society, while later on the debate shifted to the relationship between CSR and other organisational goals (Lee, M. P. 2008; Wood, D. J. & Jones, R. E. 1995). This was paired to a simultaneous shift from explicitly normatively oriented research to implicitly normatively and performance oriented research (Lee, M. P. 2008).

The essential question in CSR might be formulated as how best to combine the economic, legal and ethical responsibilities of the firm towards society (Carroll, A. B. 1979; Godfrey, P. C. & Hatch, N. W. 2007; Mintzberg, H. 1983; Windsor, D. 2006; Wood, D. J. 1991). Consequently, a central problem in CSR research is the inherent tension between the normative element of why firms should act on behalf of the social good on the one hand and the economic or instrumental element of how engaging in CSR can contribute to firm performance on the other (Godfrey, P. C. et al. 2007; Margolis, J. D. & Walsh, J. P. 2003). A multitude of studies has tried to establish a (positive) link between corporate social performance and corporate financial performance. However, the outcome of this research has remained inconclusive (Aupperle, K. E., Carroll, A. B., & Hatfield, J.
Many authors, e.g., Aupperle et al. (1985), McWilliams and Siegel (2000) and Wood and Jones (1995), argue that the inconclusiveness of the research on the CSP-CFP relationship is due to the fact that corporate social responsibility is a broad and vague construct that is difficult to operationalise.

One approach seeking to mend this shortcoming is to link the concept of corporate social responsibility to the stakeholder view of the firm. That way, the logical question – when addressing the social responsibility of companies – to whom companies should be responsible can be answered; in the words of Carroll (1991: 43), “there is a natural fit between the idea of CSR and an organisation’s stakeholders”. Therefore, in this paper, Jones’ (1980: 59-60) definition of CSR is adopted: “corporate social responsibility is the notion that corporations have an obligation to constituent groups in society other than stockholders and beyond that prescribed by law or union contract”. In this definition, the stakeholder concept is already implicitly present. To date, the stakeholder view has become the dominant theory in the CSR field (Crane, A. et al. 2008; Lee, M. P. 2008; Margolis, J. D. et al. 2003; Wood, D. J. et al. 1995).

The stakeholder view of the firm was originally developed by R.E. Freeman. He defined stakeholders as “any group or individual who can affect or is affected by the achievement of the firm’s objectives” (Freeman, R. E. 1984: 25). The stakeholder view of the firm differs from the dominant neoclassical economic views of the firm in that firms should not only serve the interests of shareholders but of other stakeholders as well if the firm is to survive and prosper. This makes the stakeholder view particularly suitable for application in the CSR field (Branco, M. C. & Rodrigues, L. L. 2007; Freeman, R. E. 1984; Harrison, J. S. & Freeman, R. E. 1999; Wood, D. J. et al. 1995).

The central goal of stakeholder management is to strive for maximum overall cooperation between the entire system of stakeholder groups and the company in order to achieve the objectives of the company (Garriga, E. et al. 2004; Post, J. E., Preston, L. E., & Sachs, S. 2002). Thus, the stakeholder view can be seen as a sort of compromise between the ‘societal’ view and the ‘organisational’ view on CSR as it encompasses the effects of stakeholder management on both the organisation and society, specified as the relevant stakeholder groups. However, this implies that the aforementioned tension in CSR theory between normative and instrumental aspects also emerges in the stakeholder view.
The focus in research on CSR in general and on the stakeholder view on CSR in particular for the most part has been on large, incorporated companies (Habisch, A. 2004; Jenkins, H. 2004; Lepoutre, J. & Heene, A. 2006; Murillo, D. & Lozano, J. M. 2006; Spence, L. J. 2007; Spence, L. J., Schmidpeter, R., & Habisch, A. 2003; Thompson, J. K. & Smith, H. L. 1991). However, despite the limited amount of research on SMEs, the stakeholder view on CSR is deemed to be relevant par excellence for SMEs as the nature of doing business in SMEs is largely personal (Fuller, T. & Tian, Y. 2006; Graafland, J. J., van de Ven, B., & Stoffele, N. 2003; Jenkins, H. 2006; Lepoutre, J. et al. 2006; Perrini, F., Russo, A., & Tencati, A. 2007; Spence, L. J. 2009). More than is possible in large corporations, SME stakeholder relationships may be characterised by a more trusting, informal basis and personal engagement with a smaller gap between the relative power of stakeholder and company (Jenkins, H. 2006). SMEs are likely to act responsibly because their legitimacy with immediate stakeholders like employees, customers and local community is at stake in a far more direct and personal way than it is with large corporations (Fuller, T. et al. 2006).

Besides, where CSR in American and increasingly also in European multinational corporations engage in explicit CSR by specifically communicating their social responsibility policies, programs and practices (Matten, D. & Moon, J. 2008), the nature of CSR in SMEs is mainly implicit and informal (Fassin, Y. 2008; Graafland, J. J. et al. 2003; Habisch, A. 2004). Finally, where corporations aim at maximising shareholder value, SMEs are mostly run by owner-managers. As they combine agent and principal in their own person, they have some leeway in addressing social responsibility issues because they are not under the obligation to maximise profit (Jenkins, H. 2006; Spence, L. J. 2009).

**Proposition 1:** Multinational SMEs are more likely to fruitfully combine the normative and instrumental aspects of their employee relations management when their way of doing business is characterised by trusting, personal relationships and when they are run by the owner-managers.

However, there are also important obstacles to carrying out CSR policies by SMEs. Many SMEs are characterised by a lack of slack resources in the form of time, specialised skills and financial resources. This situation is often aggravated by the very competitive nature of many markets causing a continuous struggle for SMEs to survive commercially (Campbell, J. L. 2007; Lepoutre, J.
et al. 2006). Furthermore, the demands from large suppliers may force SMEs to cut costs in such a way that social responsibility is jeopardised (Fassin, Y. 2008; Morsing, M. & Perrini, F. 2009).

**Proposition 2a:** Multinational SMEs will be less likely to engage in employee-oriented CSR when they are active in very competitive markets.

**Proposition 2b:** Multinational SMEs will be less likely to engage in employee-oriented CSR when they are dependent on a few large customers.

Wood and Jones (1995: 235) argue that much of the research on the relation between social and financial performance of firms starts from an implicit assumption that “only owners are seen as having the right to evaluate corporate performance and only that performance judged to be relevant to owners is an appropriate concern of management”. However, as each stakeholder group forms expectations about desirable firm performance and experiences the effects of firm behaviour, each stakeholder group also has the right to evaluate firm behaviour. This implies the use of measures of corporate social performance which are tailored to specific stakeholder groups such as employees (Branco, M. C. et al. 2007; Rowley, T. & Berman, S. 2000; Wood, D. J. et al. 1995).

According to instrumental stakeholder theory, not all stakeholder groups are equally important to the firm. Clarkson’s (1995) distinction between primary and secondary stakeholders is often used in the literature, see for example (Brammer, S. & Pavelin, S. 2004; de la Cruz Déniz-Déniz, M. & De Saá-Pérez, P. 2003; Dentchev, N. A. 2004; Galbreath, J. 2006; Hillman, A. J. & Keim, G. D. 2001; van der Laan, G., van Ees, H., & van Witteloostuijn 2008). Primary stakeholders are stakeholders who are stakeholders without whose cooperation the firm cannot survive while secondary stakeholders can affect or be affected by the firm but are not essential for its survival (Clarkson, M. B. E. 1995).

Therefore, the selection of primary stakeholders is an important process for firms (Post, J. E. et al. 2002). Selecting stakeholder groups to whom most attention should be paid can be done by measuring their salience on the basis of particular attributes of stakeholder groups (Freeman, R. E. 1984; Mitchell, R. K., Agle, B. R., & Wood, D. J. 1997). Salience is defined as “the degree to which managers give priority to competing stakeholder claims” (Mitchell, R. K. et al. 1997: 854). Mitchell et al. (1997) developed a model for identifying and prioritising stakeholders based on the possession of power to influence the firm and/or legitimacy of the relationship with the firm and/or
urgency of the claims on the firm. The most salient stakeholders, definitive stakeholders, possess all three attributes. Stakeholders possessing both power and legitimacy form the ‘dominant coalition’ in the enterprise. In many firms, employees can be headed under this category (Agle, B. R., Mitchell, R. K., & Sonnenfeld, J. A. 1999; Mitchell, R. K. et al. 1997).

Employees are a highly salient stakeholder group for SMEs, perhaps even more so than for large companies (Jenkins, H. 2006; Mandl, I. & Dorr, A. 2007; Spence, L. J. 2007). In various studies on the relative importance on stakeholder groups for SMEs, on average, firms indicate that employees are (one of) their most important stakeholder groups, see e.g. (Hammann, E. M. et al. 2009; Hoevenagel, R. & Bertens, C. 2007; Jenkins, H. 2006).

**Proposition 3: Multinational SMEs will be more likely to transfer employee-oriented CSR practices to foreign subsidiaries if the employees both at home and abroad are highly salient to top management.**

An important factor affecting the salience of employees as stakeholder group is the power over resources they can exert (Frooman, J. 1999; Wood, D. J. et al. 1995).

Frooman (1999) considers relations between stakeholders and firms as resource relationships in which there is a potential conflict of interests. The degree of mutual interdependence between firm and stakeholder group determines the stakeholder group’s power over the firm with respect to resource usage. This power can be symbolic, material or coercive in nature (Wood, D. J. et al. 1995). Thus, stakeholder management capability can be viewed as the capability of the firm to persuade stakeholders to put their resources to the best use possible for the company. In order to achieve this, companies need to build up trusting relationships with their stakeholders in order to convey convincingly to their stakeholders that the companies’ actions create mutual value for the companies themselves and the stakeholders (Laszlo, C., Sherman, D., Whalen, J., & Ellison, J. 2005; Wood, D. J. et al. 1995). Gaining the trust of stakeholders is important because trust generates commitment, which in turn results in effort benefiting the firm (de la Cruz Déniz-Déniz, M. et al. 2003).

Trust depends on the beliefs of the parties involved that their expectations concerning the behaviour of the other party towards them will not be violated. This implies a mutual vulnerability of parties. Mayer et al. (1995: 712) define trust as “the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to
the trustor, irrespective of the ability to monitor or control that other party”. This definition is most appropriate here, as it embodies a willingness to take risk. However, if trust is to be effective in the employee-organisation relationship, firms must consistently live up to their promises and avoid opportunism at times at which this might be advantageous (Pfeffer, J. 1994; Wicks, A. C., Berman, S. L., & Jones, T. M. 1999).

**Employee-oriented CSR and HRM**

Employees are both instrumentally – managers focus on the capacity of employees to influence revenues and profits positively instead of on the quality of employees merely as a debit item that at all cost has to be minimised – and normatively – managers recognise employee claims as legitimate – salient stakeholders (Agie, B. R. et al. 1999; Bae, J. S. & Lawler, J. J. 2000; Barney, J. B. & Wright, P. M. 1998; Berman, S. L., Wicks, A. C., Kotha, S., & Jones, T. M. 1999; Pfeffer, J. 1994). This puts demands on the management of employment relations within the firm in the sense that it must enable trust and mutual value creation. Trust in employees is indicated by the degree to which employees are given responsibility in the execution of their tasks (Whitley, R. 1999). If mutual trust is to arise, both parties must recognise that the gains of production are fairly distributed among the stakeholders of the organisation (principle of distributive fairness) and that employees are sufficiently satisfied, involved and participating in the functioning of the organisation (principle of procedural fairness) (Brammer, S., Millington, A., & Rayton, B. 2007; Van Buren, H. J. 2005). Tsui and colleagues (Tsui, A. S., Pearce, J. L., Porter, L. W., & Tripoli, A. M. 1997) split up employee-relations arrangements into four categories: the quasi-spot contract type, the mutual investment type, the under-investment type and the over-investment type. In the quasi-spot contract the employee receives short-term, purely economic rewards in exchange for well-specified contributions. The company is completely free to hire and fire workers. Thus, this employee-relations arrangement rests on an exclusively economic exchange model and can be said to provide for distributive fairness while the principle of procedural fairness is completely absent. The mutual investment arrangement rests upon both an economic and a social exchange model. Social exchange encompasses unspecified, broad and open-ended obligations for both parties. Besides monetary rewards, employees are offered employment security, investments in training to further career opportunities and a general care for their well-being. Thus the mutual investment arrangement can be argued to provide both for distributive fairness and procedural fairness. This creates for employees a reason to reciprocate in attitude and behaviour (Brammer, S. et al. 2007).
The other two arrangements represent a mixture of the quasi-spot contract and mutual investment arrangements and are characterised by unbalance in the mutual obligations between company and employees (Tsui, A. S. et al. 1997). The over-investment arrangement is characterised by high employment security and training investment on the hand and on the other by relatively narrow job descriptions without discretionary behaviour as reciprocation being expected (Bae, J. S. et al. 2000; Tsui, A. S. et al. 1997). It does imply, however, that the over-investment arrangement like the mutual investment arrangement provides for both distributive justice and for procedural justice. Finally, the under-investment arrangement is characterised by expectations of fully committed employee behaviour on the part of the firm in exchange for short-term, specified monetary rewards, while, on the other hand, the firm wants to be able to adapt the number of employees to its needs, so to enjoy freedom of hiring and firing (Bae, J. S. et al. 2000; Tsui, A. S. et al. 1997). In this case it can be argued that employees will experience absence of procedural fairness and, most likely, of distributive fairness as well. Clearly, only the mutual investment and over-investment arrangements are compatible with employee-oriented CSR practices.

Fey et al. (2007) state that the quality of employee performance is determined by employees’ ability as well as their motivation or commitment. This implies an important role for the human resources management (HRM) function within the company, irrespective of whether this function is organised in a full-fledged HRM department as in large corporations or is part of the tasks of a top manager or the owner-manager as in smaller companies. Consequently, an employee-oriented CSR approach implies an important role for ethics in the management of employee relations (Agle, B. R. et al. 1999; de la Cruz Déniz-Déniz, M. et al. 2003; Lado, A. A. et al. 1994; Van Buren, H. J. 2005). The ethics role is specified as non-violation of employee expectations with respect to the outcomes of specific behaviours. In exchange, employees will actively engage in behaviour that supports achievement of the firm’s goals (Fey et al.). For such an employee-oriented approach to be successful, both a fit between HRM at strategic level and HRM practices and an internally consistent set of HRM practices are deemed necessary (Björkman, I. & Lervik, J. E. 2007; Huselid, M. A., Jackson, S. E., & Schuler, R. S. 1997; Pfeffer, J. 1994). A good fit is supposed to result in organisational commitment of employees in the form of reciprocation behaviour and, thus, in favourable consequences for employee performance. Organisational commitment of employees entails employee decision making in the firm’s interests, based on the firm’s values and goals (Black, L. D. 2005). Three forms of organisational commitment can be distinguished. Affective commitment refers to identification with and
involvement in the organisation; second, continuance commitment refers to the costs employees think to result from leaving the organisation; and, finally, normative commitment refers to an obligation felt by employees to stay employed within the organisation. Especially affective commitment seems to result in a desirable employee outcomes such as attendance, job performance and health (Brammer, S. et al. 2007).

An employee-oriented CSR approach should be aimed at creating mutual affective and normative commitment among firm and employees. Apart from non-violation of mutual expectations, this also carries the necessity to create a fit between the pursuit of employee organisational commitment and the supervisory style of management. Commitment is stimulated by a supportive supervisory style characterised by “facilitating employee skill development and training, a concern for employees’ needs and feelings and the use of voice as opposed to exit as a feedback mechanism” (Beugelsdijk, S. 2008).

There seems to be general agreement that employee organisational commitment is stimulated by a consistent use of high-performance or high-commitment human resource (HR) instruments, e.g., see (Beugelsdijk, S. 2008; Brammer, S. et al. 2007; de la Cruz Déniz-Déniz, M. et al. 2003; Konrad, A. M. & Mangel, R. 2000; Lado, A. A. et al. 1994; Pfeffer, J. 1994). Examples of high-performance HR instruments are employee empowerment, task autonomy, employee participation, investment in training and career development, team work and job design, and work-life-balance programs (Beugelsdijk, S. 2008; de la Cruz Déniz-Déniz, M. et al. 2003; Pfeffer, J. 1994; Whitley, R. 1999).

\[\text{Proposition 4a: Multinational SMEs will be more likely to transfer employee-oriented CSR practices to foreign subsidiaries if they make use of the mutual investment employee-relations arrangement both at home and abroad.}\]

\[\text{Proposition 4b: Multinational SMEs characterised by the mutual investment employee-relations arrangement will be more likely to make use of high-performance or high-commitment human resource instruments in designing their employee-oriented CSR practices.}\]

However, SMEs hardly engage in strategic planning, let alone that they formulate an explicit HRM strategy (Harney, B. et al. 2006; Marsden, A. & Forbes, C. 2003). Combined with the fact that only relatively few SMEs employ professional HRM managers, one may conclude that there is a lack of
managerial theoretical understanding of HRM in SMEs (Bacon, N., Ackers, P., Storey, J., & Coates, D. 1996). Still, it turns out that quite a few SMEs, and especially the larger ones, do make use of high-performance HR instruments such as delegation of responsibility, performance appraisals, team work, and job design (Bacon, N. et al. 1996). As multinational SMEs in general will be relatively large and sophisticated, this will probably hold for them as well. Atkinson (2007) found that fulfilment of expected employer obligations towards employees exerts large influence on employee organisational commitment. Mandl and Dorr (2007) report that application of an employee-oriented CSR approach by European SMEs resulted in a decrease in employee turnover and absenteeism.

**Institutional environment and international transfer of employee-oriented CSR**

Crane and colleagues (2008) argue that the appropriate content of CSR depends on the national institutional environment. The national institutional environment will also affect whether and to what extent companies will act socially responsibly (Campbell, J. L. 2007). Consequently, the definition of CSR will also differ across countries (Mandl, I. et al. 2007). For example, in highly regulated countries, a CSR policy aimed at employees is likely to focus on issues such as work-life balance, training and employability, while in less regulated countries such concerns as working conditions and unionisation gain attention (Crane, A. et al. 2008). This implies that multinational enterprises wishing to transfer stakeholder practices for employees to foreign subsidiaries have to take into account relevant institutional differences between home country and host country (Campbell, J. L. 2006).

The function of institutionalist theory is to help understand how the environment affects the functioning of organisations (Mitchell, R. K. et al. 1997). According to the institutional view, the motives of economic behaviour are not only determined by human behaviour directed at economic optimisation but also by social justification and social obligation (Alas, R. & Tafel, K. 2008; Oliver, C. 1997). Institutions can be defined as behavioural expectations that will be sanctioned if violated (Bresser, R. K. F. & Millonig, K. 2003). Consequently, institutions will affect the way firms treat their stakeholders (Campbell, J. L. 2006). In the framework of this paper, new institutionalism and the comparative business systems approach are the most relevant institutionalist perspectives. The comparative business systems approach studies how different national institutional environments lead to the development of different forms of economic organisation across countries (Djelic, M. L., Nooteboom, B., & Whitley, R. 2008). These distinct national configurations of
institutions have internal complementarities that enable the creation of institutionally-based comparative advantages (Jackson, G. & Deeg, R. 2008). Business systems are nationally determined because nation states form the principal battlefield for social and political competition in industrial capitalist economies (Whitley, R. 1999). Institutions are seen as influencing the identity and interests of economic actors (Jackson, G. et al. 2008). New institutionalism, on the other hand, focuses on organisational forms and practices. It studies the role of societal influence and pressures for social conformity in shaping organisations’ strategies and actions. The institutional environment of firms consists of rules, norms and beliefs with respect to economic activity that define socially acceptable economic behaviour (Oliver, C. 1997; Tempel, A. & Walgenbach, P. 2007). The function of institutions is to help reduce uncertainty for organisations (Peng, M. W. 2002).

In the new institutionalist perspective, organisational behaviour, routines and structures are affected by institutions embodying expectations why organisations may be useful, what purposes they should fulfil and how they should be designed. The legitimacy of organisations is the key issue here (Tempel, A. et al. 2007). Institutions differ across societies and sectors. In order to gain legitimacy and resources, organisations must adapt to their institutional environment (Bresser, R. K. F. et al. 2003; Brouthers, K. D., Brouthers, L. E., & Werner, S. 2008). Suchman (1995: 574) defines legitimacy as “a generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions”. As legitimacy is granted by society (Wood, D. J. 1991), it implies a perception by government, employees and customers that the firm’s strategies are isomorphic with the institutional environment (Brouthers, K. D. et al. 2008). This necessitates the possession of context-specific knowledge in order to be able to achieve the firm’s objectives (Brouthers, K. D. et al. 2008).

DiMaggio and Powell (1983) capture the entire institutional environment relevant for an organisation in the construct of organisational field. An organisational field comprises “those organisations that, in the aggregate, constitute a recognised area of institutional life: key suppliers, resource and product consumers, regulatory agencies and other organisations that produce similar services or products” (DiMaggio, P. J. & Powell, W. W. 1983: 148). Organisations strive for legitimacy within their organisational fields. Three mechanisms make an organisation undergo isomorphic change during this effort: (1) coercive isomorphism stemming from the influence of other organisations upon which the organisation in question is dependent and from the influence of cultural expectations in society; (2) mimetic isomorphism encouraging imitation of other
organisations in situations of uncertainty; and (3) normative isomorphism stemming from increasing professionalisation in modern societies (DiMaggio, P. J. et al. 1983; Tempel, A. et al. 2007). However, according to new institutionalists, change towards isomorphism does not necessarily result in an in an increase in efficiency (DiMaggio, P. J. et al. 1983; Tempel, A. et al. 2007). By contrast, in the comparative business systems approach, adaptation to the institutional environment in a specific business system is efficient within the confines of that business system (Hall, P. A. & Soskice, D. 2001; Tempel, A. et al. 2007; Whitley, R. 1999).

Proposition 5: Multinational SMEs will be more likely to be affected by coercive and cognitive institutional mechanisms then by normative institutional mechanisms in designing an employee-relations arrangement in their foreign subsidiaries.

As noted before, SMEs are characterised by a lack of professional knowledge with respect to systematised and sophisticated human resource management. This implies that there will be a strong tendency among multinational SMEs for their foreign subsidiaries to comply with the employee-relations arrangements which are common practice in the host country. This may be an obstacle for transferring employee-oriented CSR practices to the foreign subsidiary. However, in the CSR literature it is argued that values of top management play a very important role in applying CSR policies and practices (Hemingway, C. A. & Maclagan, P. W. 2004; Swanson, D. L. 1999; Waldman, D. A., De Luque, M. S., Washburn, N., & House, R. J. 2006). This is even truer for SMEs because of the pivotal role of the owner-manager. Consequently, the owner-manager championing CSR is conditional for consistent and successful engagement in CSR (Jenkins, H. 2006). This implies that the top manager of the subsidiary also needs to be a champion of CSR, if transfer of employee-oriented CSR practices is to be successful.

Proposition 6: Multinational SMEs are less likely to be affected by institutional constraints in the host country in implementing employee-oriented CSR in the foreign subsidiary if both the SME owner-manager and the foreign subsidiary top manager champion employee-oriented CSR.

Institutions consist of three components each of which exerts a particular type of pressures. The regulative component consists of formal and informal rules that promote certain types of behaviour.
and restrict other types. Conformity with the regulative component is enforced by coercive pressures in the form of sanctions. The normative component is made up of norms, values, beliefs and assumptions about human nature providing standards for individuals and organisations to determine which types of behaviour can be deemed to be appropriate. Normative pressures in the form of moral obligations lead to compliance with norms and values. Finally, the perception and interpretation of reality by individuals is determined by the cognitive component. It encompasses all aspects of institutions that are taken for granted and exercises cognitive pressures through subjective, taken-for-granted assumptions (Bresser, R. K. F. et al. 2003; Jackson, G. et al. 2008; Kostova, T. 1997). Fey et al. (2007) argue that this may help explain that specific HRM practices will affect employees in different countries differently. For example, due to normative and cognitive institutions in the formerly centrally planned economy, employees in transition economies are suspicious of instruments such as performance appraisal (Fey et al., Alas).

With respect to the different components of institutions, Tempel and Walgenbach (2007) signal that new institutionalists focus especially on normative and cognitive institutions such as norms and taken-for-granted assumptions about the appropriate organisation of companies. For example, firms mimic best HRM practices in the belief that these will increase efficiency, but in fact because of their social legitimacy (Amit, R. et al. 1999). The comparative business system approach, on the other hand, focuses on regulative institutions, such as financial and training systems. The type of labour market affects the type of skills employees are encouraged to develop. Flexible labour markets stimulate the development of portable skills enabling employees to switch easily between firms. Inflexible labour markets stimulate the development of firm-specific skills as these enable employees to strive for merit-based promotion (Fey et al., Hall and Soskice).

Oliver (1997) argues that institutional capital enables companies to deal with the institutional environment. Bresser (2003: 229) defines institutional capital as “the specific conditions in an organisation’s internal and external institutional context that allow the formation of competitive advantage”. The internal institutional environment differs across organisations; this helps to explain why organisations are more heterogeneous and why tendencies towards isomorphism within organisational fields are more limited than new institutional theorists suggest (Bresser). Thus, possession of institutional capital is crucial in transferring employee-oriented CSR practices to foreign subsidiaries.

Bresser (2003) distinguishes between three types of institutional capital. Cognitive capital comprises the cognitive abilities of the firm’s decision makers to interpret the cognitive component
of institutions. The less this interpretation is affected by institutionalised structures and routines and taken-for-granted assumptions, which form cognitive sunk costs, the higher the level of cognitive capital. Cognitive sunk costs are the social and psychological costs linked to changing firm habits and routines (Oliver, C. 1997). Normative capital consists of the firm’s institutionalised norms, values, structures and routines. The easier its internal system of norms and values enable modification of structures, routines and resources, the more normative capital the organisation possesses. Together, cognitive capital and normative capital make up internal institutional capital. Regulative or external institutional capital is the firm’s capability to deal with the formal and informal demands of actors in the external institutional environment. The more the organisation is capable of proactively influencing external institutional actors, the more regulative capital the organisation possesses (Bresser, R. K. F. et al. 2003).

The analysis of the processes by which MNEs transfer practices to and implement practices in foreign subsidiaries focuses on key issues as the extent to which home-country behaviour is reproduced abroad, the extent of adaptation of practices to the host-country institutional environment and how such adaptation takes place (Ferner, A. et al. 1998; Ferner, A., Quintanilla, J., & Varul, M. Z. 2001; Tempel, A., Wächter, H., & Walgenbach, P. 2006). Foreign subsidiaries function in two different institutional environments, the host-country institutional environment and the parent-firm institutional environment (Hultén, P. 2006), implying that MNEs operate in multiple organisational fields depending upon the number of countries and sectors in which they are active (Ferner, A. et al. 1998). As a result, MNEs are subject to competing isomorphic pulls (Ferner, A. et al. 1998; Kostova, T. & Roth, K. 2002). There is a continuum of possible outcomes ranging from complete foreign subsidiary adaptation to the local institutional environment at the one extreme to complete ‘global inter-corporate isomorphism’ due to the isomorphic pressures from key global competitors at the other extreme (Ferner, A. et al. 1998).

With a view to employee relations management, this is the more interesting as it is often argued that it is important to adapt HRM practices to the local institutional environment (Alas, R. et al. 2008; Fey, C. F., Morgoulis-Jakoushev, S., Park, H. J., & Björkman, I. 2007; Harney, B. et al. 2006). Labour market regulation often even makes it imperative to conform to local standards (Ferner, A. et al. 1998). However, this will hold to a lesser extent for countries characterised by relatively flexible labour market institutions such as the UK and Eastern European countries (Ferner, A. et al. 1998; Tempel, A. et al. 2006).
Practice transfer is important to MNEs as this allows making use of its competitive advantages on a worldwide scale, gaining better control of operations worldwide and contributing to the development of a common corporate culture (Björkman, I. et al. 2007; Ferner, A. et al. 1998; Kostova, T. 1999; Kostova, T. et al. 2002). Practice transfer, however, is not successful by definition (Blazejewski, S. 2006; Kostova, T. 1999; Mohan, A. 2006). This holds especially for (strategic) organisational practices – HRM practices being part of these – the rules of which reflect underlying values (Alas, R. et al. 2008; Kostova, T. 1999; Mohan, A. 2006). Organisational practices are defined by Kostova (1999: 309) as “particular ways of conducting organisational functions that have evolved over time under the influence of an organisation’s history, people, interests, and actions and that have become institutionalised in the organisation”. This makes practice transferability dependent upon transferability of meaning and values. Kostova (1999: 311) defines transfer success as “the degree of institutionalisation of the practice at the recipient unit”. Institutionalisation consists of two stages: implementation and internalisation. Implementation is the degree to which the formal rules of the transferred practice are carried out in the recipient unit. Internalisation refers to the degree of taken-for-grantedness of the practice in the recipient unit (Björkman, I. et al. 2007; Kostova, T. 1999). Björkman and Lervik (2007) state that, in order to be completely successful, transferred practices should be integrated with the already existing practices in the recipient unit.

Kostova and Roth (2002) argue that transfer success depends on the differences between home-country and host-country institutional environments. For example, transfer of practices which lack supportive conditions in the host-country environment will be hard to accomplish successfully (Tempel, A. et al. 2006). On the other hand, the influence of the host-country institutional environment may be reduced to an extent by a ‘positive liability of foreignness’; the foreign subsidiary is not expected to be completely isomorphic with the relevant local institutional environment.

Furthermore, transfer success depends on the relational context – defined by dependence, trust and identification – between parent company and subsidiary (Kostova, T. et al. 2002). In other words, transfer success is dependent upon the institutional capital of the MNE. Thus, in dealing with employees in unfamiliar institutional environments, especially the possession of internal institutional capital probably is important for multinational SMEs. Blazejewski (2006) argues that especially differences in normative institutions may cause conflicts in the transfer process, in particular of value-infused practices. She distinguishes between four types of transfer processes:

**Proposition 7a:** Multinational SMEs are less likely to adapt employee-oriented CSR practices to the local institutional environment when they do not possess institutional capital.

**Proposition 7b:** Multinational SMEs are more likely to possess cognitive and normative institutional capital than regulative institutional capital due to a relative lack of power compared to large multinational corporations.

**Proposition 7c:** Multinational SMEs are more likely to transfer employee-oriented CSR practices successfully to their foreign subsidiaries if they possess cognitive and normative institutional capital to such an extent that they can adapt easily to the local institutional environment.

Research shows that with respect to HRM practices MNEs from different home countries go about distinctively in managing their employees (Ferner, A. et al. 1998; Ferner, A. et al. 2001). Though there is evidence of ‘Anglo-Saxonisation’ of HRM practices in MNEs, this process tends to be coloured in nationally specific ways. Bae and Rowley (2001) state that national HRM systems remain varied because the distinctness of national institutional environments restricts transferability of HRM practices. Ferner et al. (2001) argue that managerial orientation affects the impact of institutional constraints on HRM practice; within limits, institutional constraints can work out differently across firms. But, vice versa, even in deregulated host-country environments, MNEs have no unlimited freedom of action. The fact that empirical research has resulted in findings pointing to convergence as well as findings evidencing continuing divergence may be attributed to the fact that transfer may occur at different levels of HRM systems: the strategic level with guiding principles and basic assumptions, the setup of the system of HRM practices and the practice process of the specific HRM practices. The strategic level is easiest to transfer because it is almost completely codified. The lower levels, however, contain much tacit knowledge complicating transfer to subsidiaries (Bae, J. S. & Rowley,
C. 2001; Smale, A. 2008). This will apply to an even greater extent to SMEs, since these have hardly ever an explicit HRM strategy.

**Conclusion**

Though there has been extensive research on most elements affecting the opportunities for multinational SMEs to carry out a stakeholder strategy aimed at employees in their foreign subsidiaries by transferring the relevant and applicable HRM practices, this research addresses the various elements for the most part in isolation. All in all, by far the greatest part of this research applies to the situation in large corporations. On the whole, very little attention has been paid to the specific circumstances in SMEs. Research on multinational SMEs in particular is virtually non-existent.

With respect to the stakeholder view on CSR, there has been some research on this topic related to SMEs, but essentially exclusively with respect to identifying relevant stakeholder groups. How SMEs carry out CSR-oriented stakeholder policies, has hardly been investigated at all. This also goes for employees, the stakeholder group that many authors have found to be the most relevant stakeholder group for SMEs (Mankelow, G. 2008).

On international aspects of CSR, it is generally remarked in the literature, that this is, for the most part, painfully absent (Campbell, J. L. 2006; Crane, A. et al. 2008; Lee, M. P. 2008; Spence, L. J. 2007). Little attention has been paid to the CSR dilemmas resulting from MNE involvement in multiple institutional environments, for instance that many MNEs move production locations in highly developed economies to low-wage countries (Jones, M. T. 1995; Peng, M. W. & Pleggenkuhle-Miles, E. G. 2009). With respect to multinational SMEs, there has been no research on the implications of operating in multiple institutional environments with regard to transfer of employee-oriented CSR practices.

I have argued that successful transfer of employee-oriented CSR practices is dependent on the fulfilment of a number of conditions. First, managing the company, both at home and abroad, should be based on trusting relationships with employees. Second, development of trusting relationships will be advanced if employees are highly salient to the owner-manager. This salience is expressed in a mutual investment employee-relations arrangement in which high-performance or high commitment human resource practices occupy a prominent position. Third, prominent champions of employee-oriented CSR, both in the parent company and the foreign subsidiary, are needed to overcome host-country institutional constraints on engagement in employee-oriented
CSR. Finally, multinational SMEs must possess sufficient institutional capital in order to be able to adapt parent-company employee-oriented CSR practices to the host-country institutional environment while preserving the intent of these practices. Case studies are most helpful for developing the required in-depth knowledge of the ‘how’ and ‘why’ of the processes involved in the transfer of employee-oriented CSR practices (Yin, R. K. 2003). This knowledge comprises, first, employee salience to company management and the resulting objectives and strategy with respect to employees. Second, the impact of entrepreneurship on achieving these objectives should be researched. Third, the relevant differences between the various institutional environments involved are to be mapped out.

As the industry may affect the nature of strategies employed towards employees, companies from both the manufacturing and the services sector should be selected. Since the characteristics of these industries are widely diverging, such a setup warrants a fruitful opportunity for cross-case search for patterns which enhances the possibilities for generalisation of findings (Eisenhardt, K. M. 1989). This effect will be strengthened by selecting for both sectors companies with an explicit employee-oriented CSR strategy as well as companies without an explicit employee-oriented CSR strategy. Furthermore, as the effects of the institutional environment may be characteristic for one particular country, subsidiaries in several countries have to be researched to enable generalising across countries.

Presently, it turns out to be difficult for SMEs to implement a consistent employee-oriented CSR strategy in foreign subsidiaries due to differences in the institutional environment. The proposed research setup may result in a list of opportunities for SMEs to apply socially responsible practices adapted to other national institutional frameworks. This would enable multinational SMEs to realise a consistent employee-oriented CSR strategy across their international subsidiaries.

REFERENCES


Ref Type: Conference Proceeding


Ref Type: Unenacted Bill/Resolution

Ref Type: Report


Ref Type: Unpublished Work


Hensen, C. Wie klaaagt kan terug naar Polen. NRC Handelsblad . 24-1-2008.
Ref Type: Report


Ref Type: Report


Ref Type: Conference Proceeding


WS2: ‘Practitioners: Practical experiences and examples from working with SMEs’

Organizers:
Hans Joergen Limborg, TeamArbejdsliv (TeamWorklife), Denmark
Lorenzo Munar, European Agency for Safety and Health at Work, Spain

The track is especially designed for people who professionally relate to or work with small enterprises and will be organised with emphasis on dialogue and sharing of experience:

1) Concrete experiences from intermediaries and consultants who approach SMEs
2) Best practise examples from organisations, authorities or even SMEs themselves (owner/manager)
3) Evaluation of campaigns and interventions

The workshops is organized with emphasis on dialogue and sharing of experience. Practitioners and professionals from all lines will make presentations of:

1) Understanding small enterprises, their environment and their strategies to survive
2) Tools, methods and approaches to meet SMEs
3) Supporting SMEs to develop a healthy business
4) Integration of health and OHS strategies into the business strategies of SMEs
5) Approaching SMEs, managers and employees
6) Giving support and advice to special business sectors and specific groups
Presentations, session WS2.1:
Chair: Anders Kabel, BAMBUS, Denmark (with Hans Joergen Limborg)

In cooperation with Danish OHS-seminar: A part of the EU-campaign 2008-2009 on risk assessment

Time: Wednesday 21 October, 15.15-16.45
Location: Auditorium
WS2.1-1 Abstract:

‘Multiple rationalities in OHS practices of SB actors and intervention experts in Québec’
by D. Champoux, M.A., Scientific professional, Institut de recherche Robert-Sauvé en santé et en sécurité du travail, Montréal, Québec, Canada

Problem: OHS difficulties in small businesses (SBs) have until recently been largely overlooked by Québec’s institutions. Despite absence of stats to document risk in SBs, OHS inspectors and intervention experts feel risk control is generally not adequate. Description and explanations for generalized safety practices in SBs were sought from employers and employees and from OHS intervention experts.

Method: Data from semi-directed interviews with 13 employers and employees in 6 SB’s in the metal products sector and with 10 OHS practitioners from three public agencies were subjected to qualitative analysis.

Results: Interviews confirm prescribed participation and prevention measures do not meet expectations in SBs and show SB practices and institutional approaches are based on different rationalities. Characteristic dispositions and capacities largely determined by social interaction and limited access to resources are associated to generalized practices in SBs. Dominant intervention approaches are based on formal rules and financial and technical rationalities more compatible with large businesses. While employers and employees say they do not receive appropriate OHS support from institutions, intervention experts struggle with conflicting demands. Results describe formal and informal approaches to intervention and services developed by OHS experts in an attempt to build up sustainable prevention in small businesses.

Conclusions: Absence of formal institutional recognition of SBs’ special needs together with economic constraints in the system work against provision of adapted services for small business employers and employees.
WS2.1-2 Abstract:

‘Model for provision of health and work services to smaller businesses in UK’
by Christopher Harling MA FFOM, Director, NHS Plus (Plymouth Hospitals NHS Trust), Bristol, United Kingdom

When the National Health Service (NHS) was established in 1948, OH services were specifically excluded from general healthcare. It was argued that OH was the responsibility of employers and only for their benefit; hence OH services should be paid for directly by employers. There is no specific statutory requirement for enterprises in the UK to have access to an OH service. It was not surprising that work published in 2002 showed an extremely low utilisation of occupational health (OH) services by small and medium sized enterprises (SME) in the UK.

NHS Plus was established to sell OH services with a particular emphasis on SMEs. Although individual OH services dramatically increased the number of SME to whom they provided services, this had a tiny impact on the overall problem. Trial provision of a telephone helpline produced low uptake and most of the calls were about safety, rather than health, issues. We found a perception among employers that health problems lacked immediacy and the lack of management infrastructure and understanding were barriers to engagement. Others have found similar issues.

OH services are marketed on the basis of meeting the employer’s statutory duty to safeguard health and the business benefit. Although true, this does not engage with most SME. Payment is an immediate cash cost whereas benefit may be deferred and not visible in simple accounts.

Recent evidence has demonstrated the health benefits to individuals and society of OH interventions. Incorporation of simple OH concepts into primary healthcare could provide benefits for both SME and the public health. Following the launch of the new health and work strategy in the UK, a number of programmes are described to increase the provision of OH care to employees of SME utilising existing NHS healthcare arrangements.
A new model for the provision of health and work services to smaller businesses in the UK

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Abstract
Engaging small and medium sized enterprises with the provision of occupational health support is difficult. Early research showed that such services are seen as costly, not a business priority, and produce difficult to use advice; the focus of smaller businesses is on compliance with safety law. The traditional model for OH relies on specialist reports of the medical issues that set out actions for the employer. In the UK it is intended to provide more advice to workers through primary healthcare focusing on the barriers to a return to work. This paper describes a pilot scheme to provide advice to employers by a telephone helpline to enable them to understand the barriers and how to overcome them; it will have an emphasis on mental health issues. The study will operate in 9 areas using a local partnership approach.

Key words
Return to work; occupational health; small businesses; barriers

Introduction
Research undertaken for NHS Plus and the Department of Health (The Focus Group, 2004) shows that there are many barriers to SME engagement with occupational health (OH). Occupational health still sits at the margins of SME activity and is seen as a health provision (which in the UK is strongly identified with state delivery) and not a business matter. Small and medium sized businesses are largely reactive towards health and safety, with a very strong emphasis on safety and compliance with the legal duties. Sickness absence is not recorded in most small companies and comes to prominence only when a member of staff is off work for a long time. There is a strong reluctance to pay for traditional OH interventions which are seen as expensive, not suited to the specific circumstances of small businesses and a low priority.
As organisations, SMEs lack many of the structures – formal management structure, dedicated human resources department and written policies – upon which much traditional OH department activity is based and through which its services are delivered. A new model for the provision of OH support to SMEs is needed.

Background

The large majority of healthcare in the United Kingdom (UK) is provided by the National Health Service (NHS). The organisation was created in 1948 and the provision of OH care was specifically excluded from the NHS remit. The political justification for the exclusion was that the new health service would provide ‘cradle to grave’ care for the benefit of all individuals in the population. Access to the service should be based on clinical need and be free at the point of delivery. It was argued that the ‘outputs’ of an OH service were exclusively for the benefit of the employer and hence the employer should pay directly for such arrangements. At that time the majority of the workforce was employed in the nationalised industries or large companies which were strongly unionised and had a good history of providing health services for their workers. Coal mining, steel making, gas and electricity utilities, and the railway industry had powerful OH services with a proud history and substantial resources. The provision of health services at the workplace was regarded as an essential part of running such organisations.

Changes in employment practices across Europe are well documented. In the UK, we have seen a break up of the nationalised industries and a reduction in the membership of trades unions. In 1960, probably the low point in the number of small businesses in the UK, Storey (Storey, 1994) reported that only 19% of manufacturing employment was in small enterprises; this compared with 31% in 1935. Since then, the number of small and medium sized enterprises has grown rapidly. In 2007 in the UK, it was estimated that there were 4.7 million businesses, with 99.3% having fewer than 50 employees (UK Government, 2007). These companies supply nearly 50% of all employment in the private sector in the UK.

There is no legal requirement for an employer in the UK to provide occupational health services to their employees. A paper published by the Health and Safety Executive in 2002 (Institute of Occupational Medicine, 2002) looked at what proportion of employers provided OH support to their employees. The study used 2 definitions of OH support. A broad definition simply looked for evidence of hazard identification, risk management, and provision of information; a tighter definition also required evidence that the employer modified work activities, provided relevant
training, measured work hazards and monitored health. On the broad definition 15% of UK companies provided support and on the tighter definition only 3% of enterprises provided services. Given that these figures relate to all UK companies and the survey found that large companies were much more likely to provide support that small businesses, the picture was truly gloomy. Even more worrying was that these results were produced after extensive campaigns by HSE such as the ‘Good Health is Good Business’ programme, launched in 1995 which sought to highlight the benefits to employers of managing health at work.

**Small Businesses**

In the year 2000, *Securing Health Together* (UK Government, 2000), the government’s 10 year strategy for occupational health was published with it vision to ‘to tackle the high levels of work related ill-health and to reduce the personal suffering, family hardship and costs to individuals, employers and society’. Primarily led by the Health and Safety Executive, other government departments also contributed, including the NHS.

> ‘I am interested in exploring whether there is scope for the NHS more generally to provide similar occupational health services to employers, ‘NHS Plus’ if you like. A service of this sort might be particularly valuable for small and medium-sized firms which lack the size to organise in-house services but where ill-health amongst key employees can have devastating consequences.’

*A Healthier Nation and a Healthier Economy: The NHS Contribution*

Rt Hon Alan Milburn, Secretary of State for Health
6th Annual Health Lecture at the London School of Economics, 8th March 2000

**NHS Plus**

In 2001, NHS Plus was launched at the instigation of the then Secretary of State for Health (see box), recognising the particular position of small and medium sized enterprises (SME). This brought together about 100 OH departments in the NHS, which were situated in various hospitals across England. Many of these units had already provided services to employers within their local communities. Initial growth was strong and OH departments provided either a full OH service or specific services such as health surveillance or return to work advice to small businesses. The work was based on the traditional OH role and ways of working.

A number of local initiatives were taken to increase the uptake of OH services by SME. These included local advertising on radio and in newspapers, a local telephone helpline and dedicated websites. These initiatives generated some new traffic but only on a small scale; further, most of
the enquiries were not about health matters but tended to concentrate on safety issues. Other larger pilot schemes to increase use of OH support by SME, for example ‘Workplace Health Connect’ (WHC) sponsored by the HSE, found similar results. The evaluation of WHC (institute for Employment Studies, 2008) found that ‘Employers … do not immediately identify with, or call to discuss, health issues, as they appear to be driven primarily by concerns about safety’. It was clear that more than 25 years of the Health and Safety at Work Act 1974, the major UK enabling legislation in this field, the focus had remained on safety. Small employers (often known as ‘unmanaged enterprises’) in particular did not see the health of their workforce as a matter with which they could, or should, be actively concerned. Little work has been done to investigate why small businesses do not engage with’ health’ rather than safety. Surveys suggest that two thirds of employers think the health of employees is important for productivity and success but very few see it as a business priority (Norwich Union Healthcare, 2008). Speculation has focused on lack of structure, cost, the long term nature of many interventions, lack of detailed legislative requirement and in the UK at least, a feeling that the state (through the NHS) takes care of such matters. Whatever the reason, engagement with SME is low.

**Health and Work**

In addition, the knowledge of the broader relationship between good work and good health, not only for individuals but also for their families, led to a government White Paper (a position paper setting out the government’s thinking and proposals for action on particular topic) on public health being published in 2004 (Department of Health, 2004). The paper set out, in Chapter 7 the relationship between work and health. It noted the societal costs of not addressing health in the workplace. This approach, together with a recognition that no substantial progress was being made with improving work related health indices such as sickness absence rates, employment / health related social security payments such as incapacity benefit and self reported work induced ill health surveys led to the appointment of a National Director for Work and Health. Professor Carol Black, a distinguished rheumatologist and former President of the Royal College of Physicians of London brought a new mind to the problem of poor performance in the field of work and health. She identified in her report (Black, 2008) a number of problems with the way occupational health had been seen and practiced over many decades, viz

- Detachment from mainstream healthcare; the separation from the NHS since 1948
- Limited remit; only provided to those of working age who have employment and and has an employer who is prepared to pay

- Uneven provision; very few employees of SME have access to a service
- Inconsistent quality
- Diminishing workforce
- Shrinking academic base
- Image and perception

It was clear that compared with the scale of the problem (less than 3% of 4.6 million small businesses had access to OH support) a radical new approach would be required to improve the health of the working age population. The provision of OH services by specialist units alone could never hope to solve the problem. There would not be enough specialist OH practitioners and the costs would be prohibitive.

**Occupational Health Services**

The provision of OH services had been based on a legislative paradigm, in the same way that safety had been regulated. A duty had been put on employers to ‘safeguard … the health … at work of all his employees’ \(^3\) but no precise duties had been specified in relation to health; indeed there was discussion about what the phrase ‘health … at work’ really meant. Whereas the safety field had been supported by detailed legislation relating to specific hazards, this was not the case with health. A new approach was needed.

Not every person requiring an occupational health intervention requires the attention of a fully trained and qualified occupational health professional. Nor indeed does the person need to attend an occupational health clinic. This is the normal process with other branches of medicine. Not all sick children require the intervention of a trained paediatrician in a specialist unit. What is required is the confidence that if a specialist intervention is required, access to such a service is readily available.

In the NHS, the proportion of total care delivered by general practitioners is estimated at between 70% and 83% (Hennell, 1999). It is the first point of call (apart from serious accidents and emergencies) for those who are ill. For those who are absent from work through illness or injury,

\(^3\) S2(1) Health and Safety at Work, etc, Act 1994
they need a GP certificate (often known as a ‘sick note’) to present to their employers after the first week of absence. It provides an ideal opportunity to provide work focused interventions and reset some of the psycho-social pathways that so often provide barriers to a successful return to work.

Back up by a specialist OH service, in the UK, our part of healthcare would be a seamless extension to normal care provision.

A good example of this model may be seen in the UK military health services. Here, OH provision is totally integrated in the primary care provided for military personnel. The is supported by, for example, local, regional and national rehabilitation services and an interlocking support service from specialist occupational physicians. Of course this model cannot be translated directly into civilian life but it shows that the model of OH support in primary care backed up by specialist services for more complex cases can work.

A New Approach

The government, in accepting Dane Carol Black’s report (UK Government, 2008), put in place a number of work streams to improve access to OH support. Central to the new approach is to position occupational health advice back into the mainstream of the NHS and for working age people to receive advice about their work and health in the primary health services. To this end, improvements in the training of GPs have taken place, employment advisers are being located in GP clinics and improvements in access to psychological therapy (common mental health problems are the major cause of failure to return to work). Further, the government intends to replace the ‘negative’ sick note with a more ‘positive’ fit note as the mechanism by which GPs express whether or not an individual is able to attend work. It is hoped that through these measures and others set out in the government’s response, individual employees will receive more realistic advice which addresses the barriers to returning to work.

But what then of the small business? The owner of a small business will have employees returning to work who have had positive advice from primary care. Those with back pain or common mental health problems such as depression or anxiety will be returning to work with some continuing symptoms and advice about a need for modified duties. Research suggests (Seymour, 2005) that for mental health problems at least, the most important positive factor for achieving a successful return to work is manager / supervisor attitude and behaviour. How can we help small business owners to capitalise on this new approach. A new model for the provision of OH support to SMEs is required where advice and encouragement is given to directly to the employer. Further, this
advice should focus on helping small businesses manage their own staff and ‘de-medicalising’ the reasons why people are absent from work. This will require a substantial change in behaviour. The use of sick notes has engendered a view that employers can do nothing about attendance – ‘his doctor says he can’t work so I just have to accept it’. Employee feel that they have been told not to go to work and loose any incentive to get back to work.

**The Model**

The Department for Work and Pensions has decided to pilot the new model in 9 areas in Great Britain. The new model for the provision of OH support to SMEs will be in three parts. Firstly the local SME market will be surveyed and its distribution by size and sector noted. On the basis of this analysis, a local partnership will be created. A key part of the marketing strategy has been to devise a local partnership arrangement with those who may influence SMEs. These includes government agencies such as Business Link and Chambers of Commerce, trade associations such as the Federation of Small Businesses and the Engineering Employers Federation together with other bodies who advise SMEs such as the banks. Involvement of local government is also key and ensures that the project is aligned to key local priorities. Finally local health service organisations such as Primary Care Trusts and Strategic Health Authorities are engaged. The guidance that these bodies can provide, and their endorsement by is a key means of increasing uptake of the new service.

A marketing campaign is regarded as essential given the low level of penetration of OH into smaller businesses at the present. Simple messages about the benefits of early return to work, the relatively simple and cheap work modifications that may help, the importance of maintaining contact with absent employees and the dangers (to the individual, their families and the business of a slide into long term worklessness and benefits) of prolonged absence from work.

Finally, a telephone helpline will be created in each pilot area. The purpose of the helpline is to provide employers from small and micro businesses with early and easy access to high quality professional occupational health advice tailored to their needs, in response to individual employee occupational health issues and with a particular focus upon mental health. It will be focused or companies with up to 50 employees but where capacity exists, companies with up to 250 employees will also be offered advice.

Employers often find it difficult to talk to staff about health and worry, particularly in the case of mental health problems, that they will make things worse (MindOut for mental health, 2004).
Simple advice, and the opportunity to discuss fears in a private environment with a qualified health professional is helpful; the provision of a simple toolkit electronically will facilitate discussions with employees.

NHS Plus, together with NHS Direct – a national telephone helpline for patients in England, will run a dedicated SME telephone helpline. The first point of contact for the small and micro business manager will be a unique national telephone number operated by NHS Direct. After initial triage, callers will be transferred live to the appropriate local provider unit, which will undertake a telephone assessment and provide immediate advice; this will be follow up with an electronic report and guidance. Where the specific case appears to be complex, the OH professional can arrange onward referral, where appropriate, to a specialist support service.

Specific software has been created to allow simple record keeping and to learn what are the common difficulties encountered by SME. It will also allow evaluation of the service using suitably anonymised data.

The new service will launch on 1st December 2009 and run for 16 months. The pilot sites have been chosen and the SME profiling analysis has been completed. Local partnerships are being created and staff are undergoing training. The software will be alpha tested in September.

**Conclusion**

The overwhelming proportion of those who go off sick return to work without specialist OH intervention. For the small percentage who do not, the reasons are usually based on barriers to successful reintegration into the workplace; the failure to return is not based on clinical medical issues, except in a tiny number of cases. The key feature of the new service is to help SME owners deal directly with staff returning to work and help them to identify the barriers to a successful return to work.

**References**


Abstract:

‘Promoting the efficient functioning of small enterprises and entrepreneurs’
by K. Louhelainen, P. Naumanen, Ph.D, K. Ojanen, MSc (eng) & H. Palmgren, MSc, Institute of Occupational Health, Helsinki, Finland

Background: The programme focuses on promoting well-being at work, productivity and continuous improvement of work and the working environment of small enterprises (SEs) and entrepreneurs. Small enterprises and entrepreneurs do not utilise tools developed for work environment and safety management. They are not covered by occupational health services (OHS). The present models of action and methods of OHS are not efficient and do not meet the needs of SEs and entrepreneurs. Implementation of scientific approach has been used e.g. in OHS research and management of safety in SEs.

Results: A toolkit is prepared for the evaluation of work environment, safety, finance, and management for SEs to evaluate and improve the function of enterprise and its productivity. Clients are mainly the entrepreneurs and the management of SEs. A three-level model of OHS for small enterprises and entrepreneurs ranging from one time consultative intervention by OHS professionals to a comprehensive, continuous OHS consisting of promotive and preventive services and medical care. The model ensures entrepreneurs and SEs easy access to OHS. It enables them to choose the scope of services that best suit their situation. In OHS, there are specific methods and tools and operational models needed in promoting the occupational health and safety of entrepreneurs and SEs. SEs, entrepreneurs, and their partners are widely involved in a network of regional development and the network is active, they are independent and activities are developed in collaboration with partners.

Effect: The effects at enterprise will be utilisation of tools and methods for work environment and management, usage of a network of actors by entrepreneurs and utilisation of the SE-OHS model or tool in OH units.

Impact: The future impact of the above inputs are the decrease of occupational accidents and ill-health in SEs, increase in the coverage of OHS by 10 %, improvement of health and well-being in SEs and among entrepreneurs.
Promoting the efficient functioning of small enterprises and entrepreneurs

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Abstract
Promoting the efficient functioning of small enterprises and entrepreneurs has been a challenging task. Finnish Institute of Occupational Health (FIOH) has done work for quite a long time among small enterprises and entrepreneurs in several larger studies. The results have been rousing, but the main problem is obviously the after-life of a project and unfortunately the driving force at enterprises has disappeared later on.

The current programme was established in 2006 when the new strategy of the FIOH was launched. Ministry of Social Affairs and Health has a high priority of small enterprises and urged the Institute to have effort to the issue. A programme was launched to promote effective functioning in small enterprises and among entrepreneurs. The programme has three parts: Producing a model of total management and producing a model of occupational health services for small enterprises and disseminating those through regional networks.

Key words
Small enterprises, working environment, well-being at work, safety, occupational health services

Introduction
According to EU definitions microenterprises have less than 10 persons working, small less than 50 and medium size enterprises less than 250 persons working. In Finland 62% of the work force is from SMEs. The total number of enterprises is about 250 000 at the end of 2008. Of these 98% of the enterprises are SMEs and of those 99% are small and 1% medium size. About 40% of total
work force is working in small and 12% in medium size enterprises. (Entrepreneurship review 2008)

Finnish Institute of Occupational Health renewed its strategy in 2006 and new programmes were established to promote different aspects of working life and health in a broad perspective. One of the programmes was titled "Promoting the efficient functioning of small enterprises and entrepreneurs". The programme focuses on promoting well-being at work, productivity and continuous improvement of work and the working environment of small enterprises (SEs) and entrepreneurs.

Small enterprises and entrepreneurs do not utilise tools developed for work environment and safety management. The SEs and entrepreneurs do not know actual tools or those are considered too complicated. In addition, they are not covered by occupational health services (OHS). Kankaanpää et al (2005) showed that less than 10% of enterprises apply compensations from The Social Insurance Institution of Finland for their OHS expenses. This is actually not the same figure as the percentage of SEs joined in OHS, but the figure is about the same. In larger enterprises, more than 100 workers, the percentage varies between 92-95 in 2006 (Kauppinen et al 2006). The present models of action and methods of OHS are not efficient and do not meet the needs of SEs and entrepreneurs.

Approach and methods
This development programme is based on research done at FIOH during the last 10-15 years and has three larger tasks. These are total management (TM) of SEs, occupational health services model for SEs and dissemination of those products to actors and mediators through networks and education and training.

Risk assessment methods for SEs have been developed in several studies. Some are general methods some are branch of industry dependent. This programme focuses to develop a general and simple evaluation model for the management of a small enterprise. Models are analysed and evaluated by entrepreneurs themselves, experts from the Federation of Finnish Enterprises and will be tested at enterprises.
Occupational Health Service studies among small enterprises have been done during past 15 years. They have been focused on the under coverage of entrepreneurs to OHS and the implementation of present OH models to the needs of SEs. A three-level model of OHS for small enterprises and entrepreneurs ranging from one time consultative intervention by OHS professionals to a comprehensive, continuous OHS consisting of promotive and preventive services and medical care will be developed.

The third task is to establish a network to disseminate information for small enterprises and entrepreneurs. This network has a major area or local function, because SEs use local services, so they get information on well-being at work, safety and productivity connections at the same desk. These local actors are e.g. insurance institutions, Employment and Economic Development Centres, safety authorities, local offices of Federation of Finnish Enterprises.

**Results**

A toolkit "SE-TM" is prepared for the evaluation of work environment, safety, finance, management, and economics for SEs to evaluate and improve the function of enterprise and its productivity. These categories can be measured on a 4-level scale. The basic idea in this SE-TM model is factors affecting productivity. Therefore we are not measuring only work environment or health hazards, but also processes, management and leadership of a small enterprise. All these factors affect to productivity and also vice versa. One of the goals is to produce material which is understandable by entrepreneurs. We must use phrases which are simple, short, and used by entrepreneurs. The toolkit is evaluated by entrepreneurs and experts and representatives from Federation of Finnish Enterprises.

A comprehensive model for Occupational Health Care for SEs will be produced. A three-level model of OHS for small enterprises and entrepreneurs ranging from one time consultative intervention by OHS professionals to a comprehensive, continuous OHS consisting of promotive and preventive services and medical care. The model ensures entrepreneurs and SEs easy access to OHS. It enables them to choose the scope of services that best suit their situation. In OHS, there are specific methods and tools and operational models needed in promoting the occupational health and safety of entrepreneurs and SEs. In addition there are other programmes which concentrate on the general processes of OHS which help our SE orientated OHS model to be implemented properly.
Third goal is the networking practices. Network is based on cooperation between actors among entrepreneurs of SEs and their partners (HR, management, insurance institution, Employment and Economic Development Centre, safety authority, Federation of Finnish Enterprises). The basic idea with networks is that they are widely participated regionally and the network is active, they are independent and activities are developed in collaboration with partners. Implementation through regional actors is important because entrepreneurs use local services through Employment and Economic Development Centres around country. Our task is to strengthen this connection to improve their services and maintain the well-being of the entrepreneurs, small enterprises and the workers in enterprises.

A nation wide forum "Well-being at Work" has been active for about two years. It is organised by the ministry of Social Affairs and Health and run mainly by FIOH. This forum will organise a road-show mainly during next year. The focus on the road show will be evaluation and development of different factors helping entrepreneurs and enterprises especially during economical recession. This forum is a network regionally and it will disseminate information and methods of our programme.

Conclusion

The effects at enterprises will be utilisation of tools and methods for work environment and management, usage of a network of actors by entrepreneurs and utilisation of the SE-OHS model in OH units.

SEs and entrepreneurs are widely involved in a network of regional development and the network is active, they are independent and activities are developed in collaboration with partners.

The future impact of the above inputs will be that occupational accidents and ill-health decreases in SEs, the coverage of OHS will increase by 10 %, and finally health and well-being in SEs and among entrepreneurs will improve.

References


WS2.1-4 Abstract:

‘Strategies for Developing Occupational Health and Safety Actions in Small and Micro Enterprises – A Brazilian Approach’
by Luis Renato B. Andrade, Occupational Safety Engineer, Master in Administration, Company: FUNDACENTRO - Ministry of Labour & Employment, Porto Alegre, Brazil

Small and micro enterprises (SMEs) are usually compelled to respond to demands of occupational health, safety and environment. But in most of the cases they are neither prepared nor properly supported to fulfill those demands. One of the main challenges consists of the need to conciliate different demands among enterprises of different sizes. These differences have to be taken into account when strategies, norms or actions are devised aiming at the SMEs universe.

When dealing with labour rights, for instance, the issue is even more complex; SMEs collaborators’ rights cannot be suppressed once they are as important as those of the ones who work for large enterprises. It is legitimate to devise alternative ways of enforcing legal mechanisms in order to equate rights dealing with the differences between small and large organizations once unequally sized organizations should be given distinct treatment. In the light of a continuing advance of the labour world keeping the workplace and its environment safe and healthy is a hard task which requires a myriad of abilities and disciplines to anticipate, determine, and take hold of a number of occupational risks.

In this respect SMEs face even greater challenges; for instance, how can one conciliate a myriad of abilities needed with a shortage of technical, personal and financial resources? The answer to this question seems to rely on the study and application of integrated views that can manage the risks detected and at the same time promote a close collaboration among rulers, employers, workers, class associations and the organized civil society as whole in order to offer practical alternatives which can bring satisfactory results in the short and mid term. It is within such a context that actions have been promoted in Brazil to support the adoption of appropriate OHS practices by SMEs.
Strategies for Developing Occupational Health and Safety Actions in Small and Micro Enterprises – A Brazilian Approach

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Abstract
Small and micro enterprises (SMEs) are usually compelled to respond to demands of occupational health, safety and environment. But in most of the cases they are neither prepared nor properly supported to fulfill those demands. One of the main challenges consists of the need to conciliate different demands among enterprises of different sizes. These differences have to be taken into account when strategies, norms or actions are devised aiming at the SMEs universe. When dealing with labour rights, for instance, the issue is even more complex; SMEs collaborators’ rights cannot be suppressed once they are as important as those of the ones who work for large enterprises. It is legitimate to devise alternative ways of enforcing legal mechanisms in order to equate rights dealing with the differences between small and large organizations once unequally sized organizations should be given distinct treatment. In the light of a continuing advance of the labour world keeping the workplace and its environment safe and healthy is a hard task which requires a myriad of abilities and disciplines to anticipate, determine, and take hold of a number of occupational risks. In this respect SMEs face even greater challenges; for instance, how can one conciliate a myriad of abilities needed with a shortage of technical, personal and financial resources? The answer to this question seems to rely on the study and application of integrated views that can manage the risks detected and at the same time promote a close collaboration among rulers, employers, workers, class associations and the organized civil society as whole in order to offer practical alternatives which can bring satisfactory results in the short and mid term. It is within such a context that actions have been promoted in Brazil to support the adoption of appropriate OHS practices by SMEs.
Key words: Strategies for OHS; MSEs; public policies; OHS training for MSEs

Brief abstract
Small and micro enterprises (SMEs) are usually compelled to respond to demands of occupational health, safety and environment. But in most of the cases they are neither prepared nor properly supported to fulfill those demands. One of the main challenges consists of the need to conciliate different demands among enterprises of different sizes. The answer to this question seems to rely on the study and application of integrated views that can manage the risks detected and at the same time promote a close collaboration among rulers, employers, workers, class associations and the organized civil society as whole in order to offer practical alternatives which can bring satisfactory results in the short and mid term. It is within such a context that actions have been promoted in Brazil to support the adoption of appropriate OHS practices by SMEs.

Introduction
Small and micro enterprises (SMEs) are usually compelled to respond to demands of occupational health and safety (OHS), but in most of the cases, they are neither prepared nor properly supported to fulfill these demands.

It is worth saying that a small enterprise is not a smaller version of a large one. It is different. As a child, who is not a short adult, they are unequal.

These differences have to be taken into account when strategies, norms or actions are devised aiming at the SMEs universe. When dealing with labour rights, the issue is even more complex since SMEs collaborators’ rights cannot be suppressed once they are as important as those of the ones who work for large enterprises. Alternative ways of enforcing legal mechanisms are proposed in order to equate rights dealing with the differences between small and large organizations. So, it is legitimate to suppose that distinct organizations must be given distinct treatment.

In Brazil, the SMEs represent about 67% of the country labor force. This data, simple but crushing, let us infer that this lack of control of the SMEs environmental conditions, generates a toll of work-related injured and ill health people for the nation, with costs being supported by the official social insurance, or to put in another way, by the Brazilians as a whole.

According to the Brazilian Service of Support for Micro and Small Enterprises (SEBRAE), the Brazilian SMEs hold about 4.5 persons among partners, relatives and employees
with signed working papers or not. From this average of 4.5 persons, 2.7 are employees with signed working papers or not.

Consequently, there is a big challenge to be faced: how to implement sustainable actions to improve occupational and environmental conditions in these enterprises, which act on virtually all economic segments and have a geographic distribution that mingles with the own country dimensions?

One cannot conceive there is only one strategy for solving this issue or acting on it significantly. The regional differences, the cultural diversity and the multifactor characteristic intervening in the OHS issues, make us believe that only a set of articulated actions, making up a harmonic system of strategies, will be able to change in the mid run, the present OHS scene at the SMEs.

This paper presents an overall contextualization of the factors that interfere in the SMEs concerning the adoption of good OHS practices and then reports the experience being developed in Brazil to overcome some of these obstacles.

Factors that influence the non-adoption of pro OHS actions in SMEs

Without the pretension to value or prioritize each of the factors listed below, one may consider they cover a significant part of the reasons why most of the SMEs do not meet OHS minimum requirements. This list is the result of discussions held during various courses promoted by the International Labor Organization (ILO) for Latin America professionals – including Brazil – and then represents these professionals view about the issue:

- difficulties obtaining capital and credit (lack of money);
- lack of knowledge about OHS legislation. The legislation and associated technical recommendations are often complex and hard to understand, and besides, deviate resources from essential or high priority areas for the business survival;
- physical infra-structure, personnel and equipments precariousness;
- urge for benefits and/or results in the short run;
- informal, personalized and problem centered management approaches (non-generic);
- business routine maintenance;
- small directive structure, focused in other areas;
- the enterprises are not members neither take part in industrial or class associations actively;
• difficulty asserting their interests in the development of policies, strategies and regulation;
• rare or even inexistent inspection by the labor authorities (inspection of Ministry of Labour & Employment);
• hostility towards public services as a whole, not only the ones related to inspection/charge;
• lack of access to information sources (the Internet made popular among the enterprises can make up for this);
• rejection to formal training (less OHS knowledge);
• little or none experience away from the enterprise or the economic segment;
• the enterprises receive little or none OHS advice for intermediate services (accountants, for instance);
• shortage of easy access to proper support services (there is no information on which services and who can provide them);
• there is resistance to external help, although there is a demand for accessible, relevant and low cost training;
• the enterprises are resistant to consultancy services also due to the high costs;
• the enterprises are partially aware of their own risks, more concerning work accidents than occupational diseases.;
• there is a mistaken idea that a small enterprise means small occupational health and security risks as well;
• the lack of knowledge about the work accidents and occupational diseases costs, diverts resources that should be applied in prevention;
• the enterprises have a reactive approach towards the OHS, that is, only when and in case it happens. There is little or none preventive approach;
• the external socioeconomic environment is often changing, demanding frequent adaptation efforts, draining the already limited ability to deal with other areas;
• workers with little training plus scarce resources to train them;
• job instability and low incomes. Even the trade unions actions emphasize the job maintenance and better salaries. The OHS issue turns to be less important;
• low level of trade union membership or positive actions with the unions. In doing so, the workers end up without access to information;
• high staff turnover;
• lack of social pressure on OHS issues. Environmental issues have more visibility than the ones related to OHS.

On the other hand, concerning the own SMEs’ point of view about OHS, a British survey from the Health and Safety Executive/ United Kingdom (HSE/UK) points out the main factors that prevent these enterprises from promoting OHS actions:

Table 1 – Factors that prevent OHS actions in SMEs

<table>
<thead>
<tr>
<th>Factors</th>
<th>Percent out of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actions cost</td>
<td>33 %</td>
</tr>
<tr>
<td>Shortage of time and resources</td>
<td>24 %</td>
</tr>
<tr>
<td>Complex norms/regulations</td>
<td>11 %</td>
</tr>
<tr>
<td>Shortage of knowledge</td>
<td>9 %</td>
</tr>
<tr>
<td>Apathy</td>
<td>7 %</td>
</tr>
<tr>
<td>Others</td>
<td>6 %</td>
</tr>
</tbody>
</table>

In view of these findings, one could conceive that the strategies should be concerned with the attainment of financial resources to face the preventive actions costs. This is an oversimplified view. The resources are essential for the actions accomplishment, but once attained they stop being the only and sufficient stimulus to carry out the actions. Other strategies are necessary to guarantee the available resources are actually applied to work environment improvement. The shortage of resources is often an excuse to keep the situation the same, with no changes.

According to the same British institution, the question “What the State should do to promote or increase the OHS regulations compliance by the SMEs?” provided the following results:
Table 2 – State actions to promote the OHS regulations adoption by SMEs

<table>
<thead>
<tr>
<th>Actions</th>
<th>Percent out of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial assistance</td>
<td>36 %</td>
</tr>
<tr>
<td>Attach greater importance to OHS</td>
<td>23 %</td>
</tr>
<tr>
<td>Increase control actions (regulation)</td>
<td>18 %</td>
</tr>
<tr>
<td>Put and end to bureaucracy</td>
<td>14 %</td>
</tr>
<tr>
<td>Others</td>
<td>9 %</td>
</tr>
</tbody>
</table>

**Overall strategies**

It is necessary a set of systemic and continued actions that can alter the present reality in the mid and long run.

This way, the HSE/UK points out three factors to help SMEs understand their responsibilities towards OHS:

- Economic efficiency and simple and available information;
- Training and closer contact with the inspection board;
- More publicity on the benefits of investing in OHS.

According to ILO, two major questions should be answered:

1. Why do SMEs entrepreneurs should get more involved in work accidents and occupational diseases prevention?
   
   For doing so, emotionally moving, persuasion and motivation strategies must be adopted.

2. How must SMEs entrepreneurs work for the prevention of work accidents and occupational diseases?
   
   For doing so, information, training and technical assistance strategies must be adopted.

**Strategies adopted in Brazil (results)**

Based on the context described above, Brazil has adopted some actions aiming at promoting the adoption of good OHS practices by the SMEs. The first step was the agreement concluded between SEBRAE and FUNDACENTRO. SEBRAE is responsible for supporting the SMEs looking for their sustainability and competitiveness while FUNDACENTRO is the Work and Employment Ministry technical branch, responsible for research and diffusion of OHS knowledge.

Both institutions are all over the country.
This agreement took place from 2005 to 2008 and its most significant results are:

1) Development of a OHS policy proposal for SMEs

As a general principle guiding this policy proposal, there must be a different treatment concerning OHS in SMEs, but without reducing any right of these workers. The OHS policy proposal for SMEs is based on the definition of 7 general guidelines, as well as the strategies and actions specified so that each guideline is observed.

This document was firstly developed by a team of 12 technicians of both agreed institutions (FUNDACENTRO and SEBRAE) and was denominated “basic text”. Thirteen state forums were held to discuss, modify and approve this text. These state forums assembled tripartite representatives (government, employers and employees) from groups related to SMEs. This joint effort produced 13 texts with each of these forums propositions. Besides the technical discussion about the text, each forum elected its representatives (state delegates) for the national forum, also according to a tripartite distribution. Finally, the state delegates assembled in the national forum that ratified the 13 state proposals in a consensual document.

The OHS policy proposal for SMEs final document observes the following guidelines:

- Implement actions so that the OHS information reaches the SMEs.
- Adapt OHS legislation considering the SMEs peculiarities and guaranteeing the workers’ right to OHS.
- Prioritize prevention actions over the restorative ones.
- OHS training for SMEs entrepreneurs and workers.
- Prioritize studies and researches focusing OHS in SMEs.
- Development of infrastructure to support and stimulate SMEs to observe the OHS.
- Make it viable urgent interventions in critical OHS areas.

The OHS policy proposal for SMEs has English, Spanish, German and French versions.

2) Development of an Internet website for OHS in SMEs (http://sstmpe.fundacentro.gov.br/).

Concerning the OHS for SMEs website, it was developed at first for storing OHS for SMEs electronic documents, however, we hope it is possible in the near future to implement interactive services, especially the ones designed to help SMEs blend the assessment of occupational risks with the business management. One possibility to implement the services mentioned above, would be either the import and adaptation of risks assessment tools as the Quemical Tool Kit (Control Banding) and Sobane among others, or to develop specific national........
tools for relevant economic sectors where the OHS issues are important not only for the workers involved but also for the SMEs survival and sustainability.

3) Development of an educational solution (course) on OHS for SMEs entrepreneurs.

The course of OHS for SMEs aims at OHS inclusion in the SMEs business management. Having this in mind, it was developed to be a standard course, not only concerning the content but also the pedagogical techniques to be employed. The course material comprises 2 volumes, the Educator Guide and the Student Manual (plus a PowerPoint presentation). For a professional to minister the course, besides the specific training on the course itself (about 15 hours), it is necessary minimum experience in OHS issues and especially in the SMEs universe.

The course has 5 modules of 3 hours each as follows:

Module 1 - “Opening the chest”: the OHS is contextualized in the labor world; the OHS interfaces with the other business management areas are presented and lead to the identification of the benefits from the adoption of good OHS practices. The understanding of the OHS benefits for the SMEs sustainability serves as a motivation for advancing in the subject, letting the decision for the renewing to be taken.

Module 2 - “Straight to the point”: at this point, once there is motivation to comprehend and explore the subject, technical concepts as the relation among the process of getting ill health (health, work and illness), work organization, technological factors and a check-list of the major occupational risks identification are presented.

Module 3 – “Setting up north”: once motivated and aware of the OHS principles, the ascension towards the adoption of better OHS practices begins through the step-by-step exploration of the OHS management concepts and the construction and understanding of risk maps.

Module 4 – “Laying the cards on the table”: only at this point, when the positive extent of the adoption of better OHS practices can be understood, it is explored the legal implications inherent to this area through the study and identification of the social actors’ duties and responsibilities in the labor world (being them employees or employers). Once again, the benefits resulting from the adoption of good OHS practices are emphasized.

Module 5 – “Action plan for OHS management”: the fifth and last meeting is devoted to the elaboration of a short action plan on how to incorporate OHS into the business management. It is about bringing the entrepreneur-student practical experience to the classroom. This plan must be based on the skills developed along the 4 previous meetings and the entrepreneur-student practical experience.
This educational solution aims at creating the conditions so that the participants develop the following abilities:

Cognitive Dimension: understanding the importance of OHS incorporation into the entrepreneurial management;

Attitudinal Dimension: being aware of the necessary changes for the OHS incorporation into the entrepreneurial management;

Operational dimension: planning the necessary actions to incorporate OHS into the entrepreneurial management.

It is expected that the developed abilities can reflect on the enterprise management procedures and actions providing safer environments, healthy and decent work, quality products, support to social responsibility permeating productivity and the entrepreneurship success.

4) Focused interventions

Besides the national or general extent actions mentioned above, several focused activities, specific for a given economic line or target-public were developed:

- Training courses on OHS for SMEs for members of the institutions involved;
- Printing of elementary booklets on OHS in handicraft fishing activities;
- Production of a DVD about OHS in Cassava Flour Factories with titles in English and Spanish;
- Production of a reference manual about OHS in Cassava Flour Factories.

Conclusion

It is undeniable that the activities carried out until now contribute to the adoption of good OHS practices by the SMEs and that those help the attainment of health environments and decent work. The SMEs entrepreneurs’ engagement is indispensable. The SMEs are dispersed not only geographically but also economically; they take part into a variety of business lines, what greatly increases the challenge of undertaking actions that can effectively achieve the SMEs.

From the data presented, it seems reasonable that even in countries in more advanced industrialization stages, the OHS for SMEs issue is still not solved, what leaves to Brazil the challenge of creating its own strategies. Despite this, one can identify impressive similarities between situations in Brazil, where SEBRAE points out that 85% of SMEs let their whole personnel area under the responsibility of accountants, and in Australia, where 86% of SMEs make use of these professionals’ services for the same purpose.
All materials are available for use once the source is quoted. You can ask for the documents at FUNDACENTRO or directly to the author. All documents were initially developed in Portuguese (excepting the OHS policy for SMEs proposal and the DVD Cassava Flour Factories, already available in other languages). Translations and adaptations must be formally requested without any copyrights costs. The translations and contingent adaptations costs will be in charge of the one requesting.

Finally, it must be said there is still a great deal to be done so that the SMEs can incorporate OHS to their business management effectively. The society needs to take its option: either it is concerned about the subject and decides to act on the problem to solve it, or it accepts to keep generating ill health and injured workers. If the second option is chosen, it is likely that in the near future, this same society will find itself unable to pay this bill.

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Presentations, session WS2.2:
Chairs: Christopher Harling and Andrew Gilbey, Plymouth Hospitals NHS Trust, United Kingdom

Time: Wednesday 21 October, 17.15-18.45
Location: Auditorium
Many owners of SME’s have already discovered that good health and safety standards in the workplace enable employees and themselves to achieve better working results. Having a healthy workplace is an integral part of a successful enterprise’s quality. With regards to this, risk assessment is particularly important.

Many national laws relating to health and safety at work require a risk assessment, but even without a legal requirement to perform an assessment, it is good practice to do so as it allows effective measures to be taken to protect workers’ health.

Without the support of specialists in health and safety often the owners of SME’s are unable to carry out risk assessments; the direct result of which is that they are also unable to put into place measures to eliminate and reduce risks. For this reason risk assessment tools, interpreted and written in plain language for owners, are necessary.

The same risk assessment tools should be used in many different countries with the aim of achieving the same high standards in health and safety at work in every country.

A coordinated procedure for risk assessment in many countries was one of the aims of the international symposium in Prague, The Czech Republic, in autumn 2007. As a result of the symposium, risk assessment tools have been developed. To date already four brochures have been finished: Noise, Mental Workload, Fall, Machinery Hazards. They have been translated into six languages.

At the conference USE2009 in Denmark, the results of the work from this international symposium, combined with previous experiences in supporting owners of SME’s at an international level, will be introduced. Such work will also encourage partners from many other countries to collaborate in this field.
Paper

**Risk Assessment in Small and Medium Enterprises**

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**Abstract**
Many owners of SMEs have already discovered that good health and safety standards in the workplace enable employees and themselves to achieve better working results. Having a healthy workplace is an integral part of a successful enterprise’s quality. With regards to this, risk assessment is particularly important.

Many national laws relating to health and safety at work require a risk assessment. Although without a legal requirement to perform an assessment, it is good practice to do so as it allows effective measures to be taken to protect workers’ health.

Without the support of specialists in health and safety, often the owners of SMEs are unable to carry out risk assessments; the direct result of which is that they are also unable to put into place measures to eliminate and reduce risks. For this reason, risk assessment tools, interpreted and written in plain language for owners of SMEs, are necessary.

The same risk assessment tools should be used in many different countries with the aim of achieving the same high standards in health and safety at work in these countries.

A coordinated procedure for risk assessment in many countries was one of the aims of the international symposium in Prague, Czech Republic, in autumn 2007.
As a result of the symposium, risk assessment tools have been developed. To date three brochures have already been finished: “Noise”, “Mental Workload”, and “Slipping and Falling from a Height”. They have been written in several languages.

At the conference USE2009 in Denmark, the results of the work from the international working groups will be presented as well as previous experiences in supporting owners of SMEs. Such work will also encourage partners from many other countries to collaborate in this field.

Key words
Risk assessment, small enterprises, medium enterprises

Introduction
About 90 % of enterprises in Germany have 50 or less employees. The number of accidents in a single SME is rather low, but the relative risk of having an accident is higher than in bigger enterprises. Therefore, risk assessment is important for employers of SMEs.

Approach and methods
Many owners of SMEs have already discovered that good health and safety standards in the workplace enable employees and themselves to achieve better working results. Due to the high number of different tasks employers have to carry out they need expert support to manage risk assessment effectively. SMEs normally don’t have their own safety engineers or doctors. Safety engineers of accident insurers are often responsible for more than 1’000 enterprises, so they can only visit an enterprise every three years.

Three sections of the International Social Security Association (ISSA) are carrying out the project “Risk assessment in SMEs”. The aim is to give employers support in finding hazards and taking measures to eliminate or reduce risks. In November 2007 the symposium “The Framework Directive on Safety and Health at Work and its Implementation in Small and Medium-Sized Enterprises (SMEs)” took place in Prague, Czech Republic.

After the symposium, several working groups from different ISSA-sections (Iron and Metal Industry, Electricity …, Machine and System Safety) were formed to create “Guides for Risk
Assessment in Small and Medium Enterprises”, including “Noise”, “Hazards arising from machinery, equipment, and materials”, “Chemical hazards”, “Slipping and Falling from a Height”, “Mental Workload”, “Physical strain”, “Hazards arising from electricity”, “Hazards arising from whole-body/hand-arm vibrations”, and “Hazards arising from fire and explosions”. In the end of 2011 eleven guides will be available. These brochures contain basic information, checklists, risk assessment, determination of measures, and, in some, a list of standards as annex. They will be available in English, Spanish, and German as well as in the languages of members of working groups.

Results
At this time, the brochures for the topics “Noise”, “Mental Workload”, and “Slipping and Falling from a Height” are available to download as PDF-files, or order as hard copy at www.issa.int.

Conclusion
We expect that these guides will give employers in SMEs in many countries support to manage risk assessment effectively and at the same high level and help to increase health and safety in SMEs.
WS2.2-2 Abstract:

‘Campaign orchestrated by the social partners – can they reach the small enterprises?’
by Tilde Rye Andersen MA working life consultant, TeamArbejdsliv (TeamWorklife),
Copenhagen, Denmark
Caroline Klitgaard, MSc, research assistant, The National Research Centre for the Working
Environment, Copenhagen, Denmark

Problem statement and aim: The objective of this project is to generate understandings of the
impact of OHS campaigns orchestrated by the social partners directed at Danish SMEs in the
construction industry and among metal manufacturers respectively. How can the campaigns affect
change in understandings and procedures of OHS (including risk assessment) in SMEs, and what
are the conditions for improving OHS in the SMEs? We search for common features for successful
sustainable and long term preventive activities for improvement of OHS in SMEs, and specific
features concerning the two industrial areas, which have significance for the possibility of the
campaigns reaching SMEs. The focus is thus on:
1. The objectives/aims and content/activities of the campaigns, and
2. The impact of the campaigns on the OHS performance in the SMEs

Approach/method(s) used: Both of the above mentioned foci are mainly investigated qualitatively:
1. The two campaigns are evaluated mainly through interviews with key persons in the
organizations and participant observations of the campaign activities (informative
meetings).
2. The impact of the campaigns mainly through observations and interviews with (owner-)
managers and employees in 12 SMEs in each industry, searching for perceptions of and
approaches to OHS. Secondarily through a quantitative survey of the two campaigns.

Results, conclusions and implications: Generally, the involved (owner-managed) SMEs with their
simple organizational structures, diminutive administrative function, tight internal social relations,
and scarcity of finances as well as time, are difficult to reach. Targeting and ‘customizing’ of the
campaigns, outreaching and/or personal contact, easy accessible information about regulatory
requirements and simple OHS guidelines as well as consistency and repetition seem to be
important conditions for success. Furthermore, convenient timing of the campaign, e.g.
simultaneously with the introduction of new legislation/regulatory demands seems to be of great
importance. However, the two industries in focus have very different conditions for maintaining
OHS due differing structural, economic and cultural conditions. The research improves
understandings that can be used to qualify external programmes and activities, and their impact
on upgrading occupational health and safety in SMEs, which however proves to be a difficult and
resourceful task.
Campaigns orchestrated by the social partners – can they reach the small enterprises?

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Abstract
Generally, the involved (owner-managed) SMEs with their simple organizational structures, diminutive administrative function, tight internal social relations, and scarcity of finances as well as time, are difficult to reach. Targeting and ‘customizing’ of the campaigns, outreaching and/or personal contact, easy accessible information about regulatory requirements and simple OHS guidelines as well as consistency and repetition seem to be important conditions for success. Furthermore, convenient timing of the campaign, e.g. simultaneously with the introduction of new legislation/regulatory demands seems to be of great importance. However, the study indicate that the organizations may be out of touch with the younger generations of owner-managers’ approach to OHS.

Key words
OHS campaigns, impact on SMEs, resistance/appliance, owner-manager – employee relations, working culture.

Introduction
The objective of this project is to generate understandings of the impact of OHS campaigns orchestrated by the social partners directed at Danish SMEs in the construction industry and among metal manufacturers respectively: How can the campaigns affect change in understandings and procedures of OHS (including risk assessment) in SMEs, and what are the conditions for improving OHS in the SMEs? We search for common features for successful sustainable and long term
preventive activities for improvement of OHS in SMEs, and specific features concerning the two industrial areas, which have significance for the possibility of the campaigns reaching SMEs. The focus is thus on:

3. The objectives/aims and content/activities of the campaigns, and
4. The impact of the campaigns on the OHS performance in the SMEs

Approach and methods
Both of the above mentioned foci are investigated qualitatively and quantitatively:
Observations at campaign meetings in both industries, interviews with key persons of the social partners, 11 company visits to construction companies and 12 to metal companies as well as an evaluating telephone survey of both campaigns.

It is important to keep in mind that the two industries vary on a number of accounts: First, the size of a small SME in the construction industry is often less than 20 employees, whereas a small firm in the metal manufacturers is often up to 50 employees. This has had an effect on the number of telephone respondents available in the metal evaluation survey. Secondly, the construction industry is characterized by being in ever-changing locations, while the metal manufacturers often work in a workshop and therefore have a permanent base. This means that it has been easier to talk to both the owner-manager and a representative of the staff in the metal cases, whereas in the construction cases all employees have often been out on a construction site and therefore not available for interviews on visits to the company address.

At the same time, the two campaigns analyzed also differ. The campaign in the construction industry was a series of 25 meetings held all over Denmark in 2007, especially directed at SMEs. The metal campaign only held approx. 10 meetings, which has however been repeated every year as an annual event since 2003. Furthermore, the meetings were directed towards the industry in general meaning that significantly fewer SMEs participated.

Qualitative interviews
In both industries 2-6 interviews were conducted with representatives of the employers’ and employees’ organisations respectively, as well as with representatives from the Branch Working Environment Councils¹.
In the construction industry 11 companies with less than 20 employees were visited. The companies were located all over Denmark: 2 in Jutland, 3 on Funen, 4 on Zealand and 2 in Copenhagen Area. No significant differences between the companies or their interview answers seem to be connected to the geographical location of the company. On most occasions, only the owner-manager was available for interview. However, in two cases only employees were interviewed (owner-manager not available) and in two cases the wife of the owner-manager were attending the meeting along with her husband as a part of the company.

Furthermore, 12 metal manufacturers with less than 50 employees were visited. As the management and employees were all working in the same location – the metal work shop – most interviews were conducted with the owner-manager as well as a representative for the employees. However, in 2 cases only the owner-manager was interviewed, and in another case two employees were interviewed. The 12 metal companies were likewise located all over Denmark: 4 in Jutland, 1 on Funen, 1 on Zealand and 5 in Copenhagen Area. As was the case in construction, no significant differences between the companies or their interview answers seemed to be connected to the geographical location of the company.

Survey data
The two campaigns were evaluated by a telephone survey to respectively 360 respondents from the construction campaign and 60 respondents from the metal industry. The relatively low number of respondents in the metal industry is due to the fact that only 25% of the participants at the metal campaign were from companies with less than 50 employees, and only 16% had less than 30 employees. In light of this information, the response rate of metal manufacturers with less than 30 employees that participated in a campaign meeting was 57, 5%. In comparison the response rate for the construction campaign 56% - both considered generally reasonable and relatively high the businesses taken into consideration.

Results
The results show that SMEs in the construction industry and in metal manufacturing can be reached if certain conditions are met.
First, an *incentive* is required that can motivate the SMEs to adapt their behaviour. In the case of these two campaigns, the incentive was that the Labour Inspection was screening all Danish construction and metal manufacturing companies in order to evaluate the Occupational Health and Safety (OHS). If the OHS was found insufficient the penalty could be a large fine or closing of the company. The social partners viewed this situation not only as a part of their responsibility towards the SMEs to assist them, but also as an opportunity to spread knowledge of OHS to the SMEs.

Secondly, the *material* on OHS needs to be easily understood and usable with tick-of boxes and little text. Both industries are characterized by a primarily practical and hands-on attitude to work as opposed to a more theoretical approach, and paperwork on OHS is seen as a burden that is often handled as the last thing – after propositions, bills and accounts – and it affects the quality of the OHS-paperwork, the owner-managers admit.

Thirdly, the campaign directed at SMEs in construction was initiated by a written invitation that was followed up by a telephone call to over 8000 SMEs. The consequence of the telephone calls was that 30 % of the target group of small companies with less than 20 employees signed up for the campaign meetings as opposed to the only 10 % that reacted on the written invitation alone. The *personal contact* had a major effect, although it was a very expensive solution. The metal campaign did not use this strategy, meaning that only ¼ of the participants at the campaign meetings were SMEs.

However, fourthly, the metal campaign was an *annual event* with a number of meetings organized as a road show. The survey data shows that up to 80 % of the participants at the meetings were “regulars” who had participated for several years.

So, the optimal OHS-campaign setting would be: to have the right incentive, easily understood material, personal contact and to organize the campaign as an annual event that become a well-known networking event as well as a habit.

The 21 visits to companies who have had a representative at the meeting show that the meetings and the material handed out appealed to the majority of the companies. This is supported by the evaluating telephone survey that was conducted shortly after the meeting.
Short term impact in the construction industry: benefit of the campaign themes and materials

In the construction industry, almost 50 % of telephone interviewees reported to have benefitted much or very much from the meetings. The three most popular themes of the meeting (out of five) were a description of the Labour Inspection screening (51 % benefitted much or very much) and a specification of the labour law within construction industry and information on mandatory machine manuals (31 % benefitted much or very much on both). Only 25 % found that they benefitted from information on the Safety Committee and required OHS-education. This could be due to the fact that most of the SMEs in construction are below the size limit that according to the law requires a Safety Committee.

Finally the interest in a course in risk assessment was low (19 % benefitted much or very much). An owner-manager explains at one of the visits the lack of interest by that it is difficult for the smaller firms to send employees off on long courses, as the lack of hands makes it difficult to meet the customers’ needs. He encourages the social partners to offer shorter end-of-day courses to upgrade the employees.

At the meetings in the construction industry, four kinds of material were handed out. The telephone survey shows that the participants have mostly flipped through the material and not read it intensively. The checklist for risk assessment was the most accessible and has been read by and given new knowledge to 35 % of the participants, whereas 34 % has read in it but not systematically and without actual use. Information sheets on risk assessment and OHS in this particular industry has been read by and given new knowledge to respectively 28 % and 24 % of the participants. Information sheets on OHS-education for each trade group has only been read and given new knowledge to 17 % of the participants. However 41-44 % of the participants has flipped through the information sheets and might have picked up on some of the information.

Approximately the same picture goes for the visits to construction companies. When asked about the materials, most remember seeing them and looking through them, even though the visits in some cases were conducted over a year after the meeting was held. But few have actually used the materials. There seems to be a barrier for the SMEs to transform information to applicable knowledge as well as to carry through the actual organizational changes. Most popular was the
checklist for risk assessment, as it required a minimum of writing and adaption to accommodate the requirements of the Danish law.

**Short term impact in metal manufacturing: benefit of the campaign themes and materials**

The metal campaign as an annual event differs from the construction campaign as it was not directly associated with the Labour Inspection screenings, which - along with other factors - might have influenced that only 25 % of the participants (the year the research was conducted), came from SMEs. The metal industry was screened a year before the construction industry, and the campaign meeting held the same year as the screening had shown a more than 50 % increase in number of participants compared to later years.

As mentioned, companies in the metal industry are more geographically stable and larger than companies in the construction industry and they often have a more elaborate organisation of the OHS. A Safety Committee is a rarity in construction companies but quite usual among metal manufacturers, which might be the reason why more employee representatives attended the metal campaign meetings than was the case in the construction campaign meetings.

In metal manufacturing, the telephone survey shows that equally almost half (43 %) of the participants experienced a large or very large benefit from the campaign meeting. At the metal campaign meetings 3 subjects were discussed, the most popular being *sick-leave and risk assessment* according to meet mandatory legislation (47 % benefitted much or very much), the secondary being the Lean-inspired *5S systematisation tool* (41 % benefitted much or very much) and the least popular being *instruction, training, and screening* (25 % benefitted much or very much).

In general, the materials are being read through by the participants (only 2 % responds “not read” to all three types of material), but as was the case in construction it seems more difficult for them to actually use the material. 24 % respond that material on *sick-leave and risk assessment* has been used, 12 % have used the material on *5S systematisation tool* and only 2 % have used the material on *instruction, training, and screening*. 
This confirms two impressions from the construction campaign: 1) For the metal manufacturers as well as for the construction industry the interest is mostly on hands-on instructions and easily used tools, whereas information on instruction and education seems less relevant. And 2) it is difficult for the SMEs in both industries to actually apply the ideas and information to their own companies and make it work as a part of their everyday routine.

**Long term effects in construction and metal: are OHS procedures changed after the campaigns?**

The material from the construction campaign allows a comparison between companies that participated in the campaign meeting, companies that had signed up for the meeting but was then hindered, and companies that did not sign up/participate. This opens the possibility of comparing the degree of actual changes in the OHS-work and thereby evaluate whether the campaign meetings have had a long term effect that would not have occurred anyway. In metal manufacturing, the same type of data is not accessible due to less elaborate initiatives of invitation and evaluation of the meetings on behalf of the organisations.

Data from construction shows that 65% of the participating companies had implemented one or more improvements to prepare themselves for the Labour Inspection screening. Among the signed-up non-participants, 37% had implemented an improvement, and only 21% of the non-participants had done so. Data therefore strongly supports an effect of the meeting.

Even though the metal campaign does not offer the same possibility of comparison between participants and non-participants, the metal telephone survey shows that 2/3 of the respondents from SMEs (all participants) find that the meeting to a high or to some extend had influenced current changes in the OHS in the companies. Secondarily, 97% of the respondents declare that they plan to participate in the meeting again next year (in fact, 76% were “regulars” who had attended the meetings previous years).

As was the case in construction, this respond testify that the metal campaign seems to have extended the “first impression”-state and also that it has had a more fundamental effect on the development of the work with occupational health and safety in the companies visited.
However, it must be taken into account that the participants in the two campaigns – and to some extent also the signed-up nonparticipants in the construction campaign – might represent the “better part” of the SMEs; that is, the mere willingness to participate in the campaign meeting testifies that openness towards OHS-issues is present. But the visits to the 23 construction and metal companies seem to add more perspectives to this impression. For instance, it seems that the future prospects of the company and the owner’s view on his own commitment to the company in the future has an effect on the attitude towards the OHS knowledge and improvements.

*Is the campaign approach up to date with the changes in the target group?*

The meetings appear to have made a strong impression on the owner-managers (and in metal manufacturing also the employees) of the SMEs in both industries. The screenings by the Labour Inspection seems to have been shrouded in myths of the unreasonable and ruthless authority. This impression seems to last even after the actual screenings in the firms as an exception to confirm the rule.

The owner-managers relates in roughly two ways to the screenings. Overall they all agree that a safe work environment is important. However, they do not all agree that they *themselves* have to adjust their ways to accommodate to the rules and legislation. The owner-managers of ‘modern’ companies that hope for a prosperous future many years ahead seem to go head first into the issue of risk assessment, whereas the managers who do not expect their companies to endure for more than a couple of years seem to hope that their current way of organizing the OHS (which is rarely very elaborate) will last the time out. This division is of course related to the age of the owner-manager, and in companies with a generation change in progress a conflict between the two perspectives may occur – usually with the younger and more optimistic party as the “winner”.

The younger generation seems in general to approach the authorities differently than the older generation. They seem less orthodox, more debating, and having a tendency to view the Labour Inspection screenings as an opportunity for guidance rather than purely a control visit – which is also the strategy of the Labour Inspection.

However, at the campaign meetings (especially in construction) the attitude of the social partners on the issue of the Labour Inspection has been to strongly emphasize the power of the authority. The
representative from the social partner Danish Construction (employer organisation) explains the strategy of “crying wolf”:

"It [the description of the Labour Inspection screenings] has to be pretty straight forward. Otherwise they [the owner-managers of SMEs] don’t listen. It has to be spelled out. All this beating about the bush, what good does it do? There is no need for all this political nonsense.” (Head of the OHS-department in Danish Construction)

This strategy testifies to an approach to the SMEs where OHS is not taken serious unless the consequences are severe. And it might have been the right strategy. As a participant in the meeting comments when telephone interviewed:

"It was practically giving us a scare. But it was good information and it pushed me to do something.”

On the other hand, the strategy might have been misplaced in relation to the younger owner-managers who generally seem more informed of OHS and more willing to meet the legislation as well as cemented some of the myths mentioned earlier.

**A new view of owner-managers on OHS**

The following testimonies are from the company visits. The companies cited here are all relatively young and are expected to run for many years to come. The picture painted is one of concerned owner-managers who take an interest in the OHS and the well-being of their employees. They see them as an investment rather than exchangeable workforce.

"[You] have a different view upon people now than 15-20 maybe 30 years ago. Because as we see it today [we would ask] would we work here [under those conditions]? You can’t allow yourself to let your employees work under conditions that could damage their health. I believe that is the general opinion.” (Owner-manager, Metal case 9)

"I think that perhaps if you from the start have a totally negative attitude towards OHS and safe work environment being a waste of time and something invented to bother us, well, then I think it
might be a good exercise to be forced to write down what it is actually about and talk to your people about it. Well, I feel we do that already.” (Owner-manager, Metal case 3)

"Before he [the older journeyman in his company] was used to being on a piecework and that was a battle. You really had to be careful with the safety as it is when you are hurrying that things go wrong.” (Owner-manager, Construction case 2)

"I care about the people who work here. We are a family and if one of them hurts himself I would feel terrible! So they have to know that they have to take care of themselves. When I myself was an apprentice I couldn’t care less [tells a story of a dangerous situation from his time as an apprentice] This is how I was trained: If you fall down and kill yourself then we’ll just find someone else to take over. I don’t myself want to be the kind of employer who only thinks about money and profit. If we don’t have fun I might as well leave it and become second-in-command in [a large construction firm].” (Owner-manager, Construction case 5)

The employee organisations out of touch?

In the employee organisations, OHS is still at large considered a conflict area where employees have to fight their employers to get the necessary safety equipment; even if the so-called “Danish Model” of consensus-seeking and collaboration between the social partners is well known (Due 1994). However, Limborg et al. (2003) argue that SMEs run by the owner are often structured as a patriarchal family with great concern and feeling of personal responsibility for the employees. The employees hence respond with a strong dedication to the workplace.

In this view it, is unlikely that the conflict approach is (the most) relevant in owner-managed SMEs, where the relational ties between employer and employees are often strong (Eakin & MacEachen 1998, Hasle & Kines 2009). These quotes support this argument:

"I am in the organisation of the master builders and there we of course discuss it [the work environment]. We also have a local division of the organisation of builders [employee organisation] which is a cross-functional. It is really an employee organisation but sometimes they bring up relevant issues.” (Owner-manager, Construction case 2)
"I really believe that the companies have realized that you get more out of cooperating that conflicting (...) you have to find the method, the spirit, that fits the employees you have, and the era in which you live”. (Owner-manager, Metal case 7).

The results of the current study further seems to indicate that the structure of the SMEs are developing into a more network-based structure where the owner-manager views himself more as a coordinator rather than a patriarchal father figure (Klyver 2005). This strengthens the argument that the conflict-approach to OHS is too simplistic for the future SMEs.

Additionally, the wife of the owner-manager used to be highly involved in the company according to the family structure model as the considered mother figure and has therefore been viewed by both employee and employer organisations as obvious target group for OHS knowledge. With the change of company structure that the network-model indicates – and the changes in society in general - the wife is no longer as involved as she used to be, if at all. And if she is part of the company she usually claims an independent status such as book keeper, designer or similar and no longer accepts being the background person defined by her husband’s status.

**Towards a new approach to OHS in SMEs?**

The study indicates that the attitude and approach to OHS in SMEs in construction and metal manufacturing seems to develop into a more proactive direction where good OHS is seen as a natural part of a well run company. The basis for this is a change of attitude towards the employees who to a larger extend is seen as an investment rather than a more anonymous and exchangeable work force. At the same time, the owner-managers’ view of the company is changing. The young owner-managers no longer see themselves (exclusively) as a responsible father but to a larger extend view the employees as responsible adults/equals who can – and should – take care of themselves.

This requires an up-to-date view on the SME from the social partners. As it is now they still seem to be caught in the “family structure model” where the “parents” (owner-manager and wife) are the correct to approach and seem to continue an information strategy where the treat of the law is the main incentive to change behaviour rather than a more argumentative approach based on reasoning.
Conclusion

Based on the above analysis we conclude that: yes, the SMEs can be reached through campaigns. However it requires a relevant incentive, funding that will support a personal approach method (ex. telephone calls to the potential participants) and material to hand out that is easily used and with limited text. The success of a campaign will most likely be bigger if the campaign is an annual event rather than a one-time experience and if the approach to the SME is more based on guidance and reasoning rather than a scare-off strategy – especially if the organisations wish to reach the younger generations of owner-managers and employees.

1 The 11 Branch Working Environment Councils register and map the different branches particular problems within OHS and assist the workplaces in solving these problems.

2 Evaluation scale in 5 steps: 1) very little, 2) little, 3) neither-nor, 4) much, and 5) very much.

3 Evaluation scale in 5 steps: 1) not read, 2) read some of/flipped through, 3) read and achieved new knowledge, 4) read, achieved new knowledge, and used, 5) not read. In the text above the percentages for categories 3 and 4 has been added up.

4 Same evaluation scale as in footnote 1.

5 Evaluation scale in 4 steps: 1) to a high extend, 2) to some extend, 3) to a limited extend and 4) not at all.

References


WS2.2-3 Abstract:

‘Attractive Work Process’
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Many companies both in Sweden and other parts of the world are since the beginning of the 21st century facing a lack of work force (1,2,3). The ability to recruit and retain skilled employees is seen as one of the most important questions for the survival and development of the companies (4,5). Labour shortage is seen as the biggest obstacle for expansion for small enterprises in Sweden (5). There is a need for workplaces to be attractive, but how can the attractiveness be increased? Researchers at Högskolan Dalarna have during almost a decennium conducted research concerning attractive work. Based on a model of qualities that contributes to make a work attractive (6) has a method aiming for raised attractiveness been developed for SMEs. All employees participate by answering a questionnaire about the importance of different qualities and to what degree they are fulfilled. Further discussions at the workplace on what to preserve and what to develop make the base for an action plan.

Important experiences:
- Discuss and establish the aim of the method with management and employees.
- The company must be prepared to follow up and realize the action plan.
- Agree about expectations – they must be realistic and practicable.
- Reserve time to start the process and to end up in an action plan.
- Avoid negative thinking and put problems away.
- Take all the time small steps in the right direction.
- Keep employees engaged and avoid the manager or process leader to take the command.
- Use the strategy with small work groups; it gives better possibilities for participation and outspokenness.
- Follow up studies are necessary to keep up the motivation.

The most positive aspects of the method is its promoting perspective and that it engages all the employees.

References:


Attractive Work Process

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Abstract
Since the beginning of the 21st century, many companies have been facing a work force shortage. The ability to recruit and retain skilled employees is seen as one of the most important issues for the survival and development of companies. There is a need for workplaces to be attractive. A process aiming at raised attractiveness has been developed. It is based on a model of qualities that contribute to making work attractive. All employees participate by answering a questionnaire about the importance of different qualities and to what degree they are fulfilled. Further discussions at the workplace on what to preserve and what to develop form the basis of an action plan. The most positive aspects of the method are its “promoting perspective” and that it engages all the employees.

Attractive Work, employee engagement, small enterprises, development process

Introduction
Many companies, both in Sweden and other parts of the world, have been facing a work force shortage since the beginning of the 21st century (Rauhut, 2002; Funch and Ehnrooth, 2008; Manpower, 2008). Labour shortage problems go beyond national borders. One example is the enlargement of the EU in 2004, which led to increased labour mobility, and this is expected to increase when more European countries open their labour markets (Dølvik & Eldring, 2008). That means that today’s employers have to compete with companies around the world in recruiting their work force.
The ability to recruit and retain skilled employees is seen as one of the most important issues for the survival and development of companies (Bakker & Schaufeli, 2008). In 2008, labour shortages were the biggest obstacle for expansion and affect more than 20% of small enterprises (those with 1-49 employees) in Sweden (Kennemar & Jagrén, 2008). In spite of the recession, six of ten small enterprises in Sweden say that they have good opportunities for expansion, but labour shortages are seen as the second biggest obstacle to expansion affect about 15% of companies (Kennemar, Jagrén, et al., 2009). The situation 2009 is exceptional because of the recession. Before this, skilled workforce shortages had been the dominating obstacle for expansion for a long period among Swedish SMEs. To be attractive is not simply a matter of recruiting a work force. Companies need to retain and engage skilled employees to be successful as well. It is argued that attractive workplaces, with their increased levels of commitment, lead to higher productivity (Marks & Huzzard, 2008).

As described above, is there a need for companies to be attractive and, more precisely, more attractive than others. The question is, then, how a company’s attractiveness can be increased. For nearly a decade, researchers at the university Högskolan Dalarna have conducted research concerning Attractive Work. Research and development projects have been closely linked with the situations SMEs face, and have been carried out using an interactive research approach. Attractive Work focuses on positive aspects of work and can be seen as a part of positive organizational scholarship (POS) (Bakker & Schaufeli, 2008).

The research concerning Attractive Work has its point of departure in industrial SMEs’ practical problem of attracting a work force, especially young workers. Companies were concerned that they were unable to recruit properly trained young workers. Discussions were held on who to blame and different arguments were made. Some examples: workplaces and work tasks are not good enough, which is the responsibility of the employers; schools are not good enough, which leads to few students, and the schools are responsible; and youngsters don’t understand what it is like to work at industrial companies and need more information about work and the workplace. Discussions among companies, schools, municipalities, and researchers resulted in the insight that there was a need for information as well as development. Workplace development was needed in order to increase the willingness of employees to stay at workplaces and increase their engagement in their work tasks. However, development grounded in the needs of prospective young workers was also needed. Information about existing and developing working conditions had to be given to prospective
employees. The companies understood that they had to offer attractive work to both current and prospective employees.

The situation described above raised questions such as “How can we be attractive?” and “What makes work attractive?” Hedlund and Pontén (2006) have defined work as attractive if a person is interested to apply for it, wants to stay and is engaged in it.

It is the individual who judges the attractiveness of work based on her/his life situation. Hedlund (2007) has identified some characteristics for Attractive Work. The positive aspects of work, i.e. qualities that contributes to make a job attractive, are focused upon. The individual compares positive aspects of work to other jobs or to the importance of those positive aspects. The attractiveness of work is also dynamic, i.e. the attractiveness of one job can change over time. For example, a part-time job close to home may be very attractive for a parent with small children but twenty years later, when the children have left home, a job with career opportunities becomes more attractive. Changed assessments of work’s attractiveness depend both on re-valuation of different aspects of work, and on re-conception of the aspects. (Hedlund, 2007)

In order to understand what makes work attractive, i.e. to identify positive aspects of work, the Attractive Work Model was developed. It gives an overall picture containing more than 80 qualities that contribute to making work attractive. The qualities are divided into three categories. The category Attractive Work Contents includes dimensions that deal with what the employee does during the performance of a job and how she or he does it. Work Satisfaction includes dimensions that deal with how the employee thinks she or he benefits from the job. Attractive Working Conditions describes the conditions for performing a job, some of which are common for all employees at a workplace. (Åteg, Hedlund, et al., 2004)

From the Attractive Work Model, a questionnaire containing all the qualities was designed. The questionnaire, Questionnaire Concerning Attractive Work, makes it possible to measure attractiveness, and the results from the questionnaire are supposed to provide a basis for the development of attractive work and workplaces. The main part of the questionnaire measures the individual’s opinion of the qualities, both how important each quality is to make a job attractive, and to what extent each quality corresponds with the current job. One general question is “To what extent do you consider your current job to be attractive?” Respondents have five alternatives to choose from, from “Not at all” to “Completely”. Finally, the questionnaire contains two questions about how important work is and the main reason for working. (Högskolan Dalarna, 2008)
A method based on the questionnaire has been developed in order to support SMEs in their ambition to offer more attractive work and workplaces, the Attractive Work Process. The aim of the process is to support companies and organisations in developing more attractive jobs. The focus is primarily to raise the level of attractiveness for those already employed. Raised attractiveness among current employees is presumed to raise the attractiveness for prospective employees as well. The aim of this paper is to describe the Attractive Work Process and the experiences of its use.

Method

The Attractive Work Process has been developed within interactive research and development projects with SMEs in Dalarna, Sweden. The workplaces represent different branches, for example estate management, parish work, museum, and elderly care. The process has been supported by a process leader, i.e. a researcher or a person from a supporting service company, with expertise in work environment, development processes, and Attractive Work. The Attractive Work Process method, like the Attractive Work Model, focuses on promotion and possibilities. Aspects of work that are seen as important to its attractiveness should be protected and developed. A characteristic of Attractive Work is that it is an ongoing task that will never be finished. Development work has to be seen as a process, not a project.

The questionnaire, *Questionnaire Concerning Attractive Work*, measures the importance of different qualities to make the job attractive and fulfilment in the current job (Högskolan Dalarna, 2008). This creates a picture of employees’ opinions. Important areas, as well as areas prioritized for development, can be identified. With that as a basis, discussions can be held about how different qualities relate to each other.

The Attractive Work Process contains the following six steps:

1. Inform, plan and motivate
2. Complete the questionnaire
3. Analyze results
4. Report results and prioritize
5. Action plan
6. Measure/evaluate

During the development of the Attractive Work Process, the central and important aspects of the process have been identified, based on the experiences of participating researchers and companies.
An overall description of the content and the important aspects identified will be described in each step. Important common aspects are also noted.

**Inform, plan and motivate**

The first task is to work with the company’s manager to define the aim and objectives of the Attractive Work Process. Initial information is given to everybody who will be involved – management, employees, union representatives, et al. – to establish the work. It must be clear that the necessary time and resources for the coming process are available.

The person at the workplace who is responsible for the process should be contacted. It is an advantage if this contact person has a working group to cooperate with. The person or group should participate in planning and running the process, so they need resources, such as time. The process leader and the contact person plan the process. It includes information, meetings, and intermediary work. Decisions have to be taken about when and where each activity will take place, and who will be responsible.

The employees should be informed about the company’s aims and objectives in using the Attractive Work Process. The Attractive Work Model and the questionnaire should also be described for them. The employees should be informed that everybody’s opinions are important in the process of finding ways to make a workplace attractive. They should also be informed that no one is forced to participate; participation should be seen as an opportunity to influence the process. Further, the planning of the process should be described and the employees informed that the results will be presented on group or company levels.

**Important aspects**

- It is of great importance to have the manager’s support before the process starts. The aim of the process should be discussed and established with the manager. Time and resources must be discussed and reserved for the whole process. The process leader and the manager must also agree on and carry out expectations from the beginning. They have a common responsibility to make them realistic and practicable.

- The planning of the process is also important. It is easy to forget that it takes time to start up and to end the process. The process leader who is familiar with the process and a person or a group from the company with knowledge about the organisation should do the planning together. The time and resources needed for the process must be available and should not
interfere with employees’ other duties. For example, the company must be prepared to follow up and realize the action plan.

- From the start, employees should receive information about the aim of the process and how it is to be carried out. This is important, since the process is based on employee participation. Another aim of this information is to raise employees’ motivation to participate.

**Complete the questionnaire**

All employees should complete the questionnaire. First, the information already given should be repeated. The questionnaires and instructions on how to complete them should be given to the employees. It takes about 20 minutes to complete the questionnaire. The process leader, or someone else who can answer any questions that come up, should be present.

An opportunity for those who are not present to complete the questionnaire at a later time should be arranged. One way is to leave the questionnaire with an envelope so the completed questionnaire can be returned without the possibility of identifying the respondent.

A web-based version can be used as an alternative to a paper questionnaire. Repeated information can be given by e-mail at the same time as access to the questionnaire is given. The employees complete the questionnaire on a computer, with access to the Internet, sometime during an expressed time interval, e.g. between the 1st and the 15th of May.

**Important aspects**

- The use of the *Questionnaire Concerning Attractive Work* provides a point of departure for the Attractive Work Process. There are several advantages to using the questionnaire. It is an efficient way to gather opinions from everybody. It is also supposed to make employees feel engaged and motivated and to feel that, that their opinions matter.

- It is important to handle the questionnaires in a way that makes the employees feel secure that the results cannot be traced back to specific individuals. Information should be given on how the data is to be analyzed and presented.

- A challenging part is to get everybody to complete the questionnaire. Information should be given about the importance of gathering everybody’s opinions in order to get representative results. The questionnaire is extensive and people who are not used to reading or not so
familiar with the language may find it tiring. Some may need more time and others can be helped by someone reading the questions for them.

- The presence of the process leader who gives information and is available to answer questions is also desirable.
- The web-based version may be advantageous if it is difficult to gather the staff at one time.

**Analyze results**

When the questionnaires are completed it is time to process the answers and analyze them. First, the data from the questionnaire should be transferred to a data file. The transfer is automatic with the web-based version.

The data can be analyzed and presented in different graphic forms. Which ones to choose depend on the aim and objective of the company. The decision depends on how, when and to whom the results are to be presented, i.e., if it is the results from the whole company or from different working groups.

The amount of data is so big that a strategy is necessary. It is not possible to present all the data on one occasion. One way is to start with two diagrams, one with the qualities which were valued to be most important to make a job attractive, and the second showing the qualities which reflect the biggest difference between the current job and the qualities’ importance. Further analysis of the data can be done after the first presentation of the results.

The diagram showing the qualities with the biggest difference between the current job and the qualities’ importance is named “prioritized areas”. Prioritized areas are seen as areas that are important to develop to raise the attractiveness of the work. When selecting areas, not only is the difference between the current job and importance of making a job attractive important, but the importance of the quality has to be considered. The more important a quality is, the more urgent its fulfilment in the current job. The formula $\text{Priority} = \text{Attractiveness} \times (\text{Attractiveness} - \text{Current job})$ has been developed to identify areas prioritized for development. Prioritized qualities are those with highest Priority. See figure 1 for an example of one spider diagram.
Figure 1. An example of a spider diagram showing prioritized areas based on the formula

\[
\text{Priority} = \text{Attractiveness} \times (\text{Attractiveness} - \text{Current job})
\]

Important aspects

- One of the biggest advantages of the Questionnaire Concerning Attractive Work is that it gives an overall picture of employees’ opinions about their job situation. The statements in the questionnaire make it possible for employees to put words and concepts to their experiences. The amount of information is big, and a strategy is needed to select what to present and in which form.

- It is a good idea to select only a few diagrams with some of the qualities at the start. Showing about 15 qualities in a diagram makes it possible for the employees to grasp the information. For example, qualities that are related to each other can be identified. Further diagrams can be made later in the process when they are requested. It is important to stimulate employees’ motivation and engagement and let them be the ones to identify what they are interested in learning more about.

- Visualization of the results is appreciated. The diagrams should be distinct with a clear title and descriptions of the curves and always the same colours for the same curve (e.g. red for...
attractive qualities and blue for the current job), and a font size that makes it possible to read the statements (see figure 1).

**Report results and prioritize**

The fourth step of the process starts with the presentation of the results. In some companies, the management want to see the presentation before it is given to the employees. All employees should be invited to a meeting which will take about 3-4 hours. If it is a large workplace meetings within different working groups are an option.

The meeting is characterized by dialogue and there should be a process leader who is well prepared. Knowledge of the Attractive Work Model, as well as the skills to lead a dialogue and an attitude that encourages participation from everybody is also preferable. The process leader should be familiar with the results and have some knowledge about actual workplace.

First, a short presentation of the process at the company should be given, and then is it time to present the results. The attendees should be invited to participate during the meeting. The presentation of results can be divided into three parts: background questions, important qualities and prioritized qualities.

Diagrams of the background questions – “How important is work to you?”, “What is the main reason for working?” and “To what extent do you consider your current job attractive?” – are shown. Then the participants should discuss how they perceive the results. The aim is that they start thinking about their job and its importance.

After that, the 15 qualities that the employees found most important for a job to be attractive should be shown. The diagram should be explained and a copy of it should be handed out to everyone. The participants should be divided into small groups and reflect over the diagram together. They should discuss and write down what they think promotes the attractiveness of the different aspects of their workplace. Each group should present and share with the other groups their opinions on what they think promotes each quality.

The last part is to present a diagram with the 15 most prioritized qualities. The participants then discuss and share their opinions once again.

**Important aspects**

- It is important that the process leader is well prepared and focused on her/his role. The process leader should lead the dialogue and not contribute her/his opinion to the results.
• Letting the employees go through the results should increase their awareness of Attractive Work. The dialogue gives them the opportunity to express their thoughts and opinions.

• It is important to raise the promoting perspective, otherwise there is a large risk that people will blame each other and only see problems. One way to promote is to ask the employees what they think can be done so their current job approaches the attractive one. Another way is to ask the employees to discuss what in their current job supports the most important qualities.

**Action plan**

In the fifth step the thoughts from the employees should be converted into concrete activities. One way to do this is to write an action plan. Some activities can be done immediately, while others require a longer perspective.

Promoting thoughts and ideas should inspire concrete activities. Each small group chooses some of their earlier presented promoting aspects for analysis. Concrete activities that can be undertaken at the company to raise attractiveness should be developed. The suggestions will be presented to the whole group of employees and actions will be written down in a common action plan. The action plan should include what should be done, why should it be done, how should it be done, who is responsible, and when should it be done. This document will be the basis for later follow-up and evaluation.

In a bigger company with several working groups, there can be a need to gather suggestions that are common to the whole company before action can be taken. The action plan should describe the process to ensure that it will continue and that positive change occurs.

**Important aspects**

• When working on the action plan is it good to divide the employees into smaller groups. That gives everybody the opportunity to mention their opinions and thoughts. Sometimes it is good to mix employees from different work groups. The mix of people can make it easier to think in new ways. The employees will then bring their “new” thinking back to their ordinary work groups. All ideas are taken into account.

• The employees themselves should make the decision about what to focus on and how to proceed. When employees are creating the action plan it is important that the process leader raise the question “What can you start with, in your own work team?” This gives them the
opportunity and responsibility to take actions themselves. Another advantage is to start with simple actions that can be included in the ordinary work routines without large investments. Another advantage is to start with simple actions that can be included in the ordinary work routines without large investments.

- The realization of the action plan should start as soon as possible. Immediate activities will allow the employees to see that something is happening and that the process is going forth.

**Measure/evaluate**

A variety of things can be done to carry out the action plan and keep the process alive. The action plan should be on the agenda for regular employee meetings. Follow-up should be done on all activities and new ones should be made when necessary. That will show that the process is prioritized and everybody will continuously be reminded of it.

Another thing is to make records of measurement summarizing the actions: ten points for completed actions, five points for actions which have been started and zero points for those which are not performed. Measurements should be performed regularly and the results should be presented to everyone in graphic format.

At least one day per year can be set aside for the work teams to focus on work attractiveness. A summary evaluation of performed activities should be completed once a year and be presented to all employees.

**Important aspects**

- To effectively raise attractiveness, it is important to make sure that an action plan is prepared. If the process stops, there is a big risk of the opposite effect, i.e. the jobs will become less attractive.

- Follow-up studies are helpful to work through the action plan and continue to develop the attractiveness of the workplace. Decisions have to be taken about when and how follow-ups should be done.

- Activities that have been completed should be mentioned and the results should be made visible to all participants.

**General important aspects**

The process is built on a promoting approach and engagement from all the employees. It is thereby important that the process leader’s behaviour supports that approach. The promoting perspective raises possibilities and should provide the energy to take actions. Negative thinking should be
avoided and problems should be set aside. Actions to keep and raise employees’ motivation and engagement are needed throughout process. Information should be continuously provided. It takes time to make changes. Small steps in the right direction keep the process moving forward. It is necessary to let the changes take time so as many employees as possible are aware of and understand the process. Many small steps also give more employees the opportunity to actually take part in the actions, and are often easier to plan.

In order to make the process continuous it must be “living” all the time. Continuation depends on how the six steps of the process have developed. One way is to conduct further discussions based on the first results collected from the survey. Another is to take a new measurement and begin again.

**Results and discussion**

The method of the Attractive Work Process is continuously developed. From the description above it is easy to understand that the process is dynamic. It will take different forms depending on the company, the employees and the process leader. Some ways to handle important aspects have been identified from experiences during the development of the process. Descriptions from some cases will be presented and discussed.

**Successful cases**

Support from the manager before the start has been identified as important. The manager and the process leader must agree on expectations. A way to do that is to start with a strategic discussion, raising questions such as “What opportunities does the process offer?” and “What are the goals for the company?” Not only are the goals of the process interesting but so is the company’s vision. One manager said that the Attractive Work Process should be integrated into the company’s strategy. It would offer greater understanding for why the process is taking place as well as make it easier to keep the process going.

It is challenging to get everybody to complete the questionnaire. It is a good idea to gather all the employees and give them time to do it on the same occasion. The most common ways have been to make time for it in combination with a regular personnel meeting, or in connection with lunch or a break in the work. One company did it as a special event. They arranged for a special activity, tasting different types of coffee, and completed the questionnaire at the same time. It was greatly appreciated by the employees.
As mentioned earlier, the process leader should plan the process together with a person or a group from the company. It has been successful to always have two people responsible for the process. These can be, for example, one person at the company and one external process leader. Most important, however, is that at least one of them is familiar with the process and one has knowledge in the actual business. As a tandem they can support each other in getting things done and discussing how to handle situations that arise during the process.

To have two people who are responsible is also necessary for the success of the goal of offering more attractive work. Several companies say that it is positive if the external process leader comes back to the company and asks about long-term effects. This creates positive pressure on the company to keep the process alive. On that occasion the company can proudly present what they have done and also discuss further actions. Independent of external or internal process leaders, a long-term plan with follow-up and evaluation is needed.

**Important areas**

Many important aspects of the process are described above. It is interesting to discuss the data from the questionnaire and the engagement of the employees from a methodological perspective. With a goal of getting as many employees as possible to complete the questionnaire is it important that they have confidence in how the data will be handled. Therefore, it is important to provide information on how the data will be analyzed and presented. In the work with this process it has so far always been an external person, i.e. one not working at the company, who has gathered and summarized the results. In that way the possibility of identifying an individual’s responses is low. If employees take on this task it can be difficult to maintain integrity. The presentation of the results is also of importance for integrity. A workplace with several working teams may want to present some results at the team level or by subgroups, e.g. men/women. Then is it important to have groups that are sufficiently large. A typical target is that there should be at least 5 people in each subgroup.

The process is built on engagement from the employees. Because of that, the goal is to keep and raise the motivation and engagement of the employees during the whole process. Different ways to achieve that aim can be identified in the process. When starting up, information about the process is given to all employees. In that way employees are made aware of the process and feel included. Continuous information is given to maintain motivation. Another way to engage employees is to let everybody complete the questionnaire. People who are not present when the questionnaire is first completed should be given the opportunity to fill it in. Completing the questionnaire gives the
employee a clearer feeling of participation. It also gives a signal that his/her opinions are valued. The employees also contribute their opinions in the discussion around the results and in the creation of the action plan. Everyone’s participation is assumed to be supported by the dialogues and work in small groups. A final example is to request actions that can be done by the work group to raise attractiveness. Feedback from the companies shows that employees are motivated by and engaged in the process. Further research is needed to establish how motivation and engagement are supported and to what degree.

Conclusions

**Success factors and problems**

As mentioned, the Attractive Work Process has been developed continuously. According to changeable working conditions in today’s working life and the basic idea that a high level of engagement on the part of the company and its employees forms the process, it will probably be further developed. In this paper the process, as well as important aspects of it, have been described. The basis is the researchers’ interaction and discussions with participating companies and supporting service companies.

The Attractive Work Model is the basis for the process. The promoting perspective, and starting with an overall picture of the work situation have been successful. Focusing on the positive instead of looking for problems has been especially appreciated by company leaders. Despite the length of the questionnaire, response rates have been very high when using the paper version. That has likely been made possible by using the described method to gather all employees, as well as the presence of the process leader. It would be preferable if the number of questions could be decreased without losing the overall picture. A study has begun to investigate if that is possible.

The way that the steps in the process are performed is important. The process assumes engagement from the manager and the employees in a variety of ways. The success of the process seems, in large part, to be dependent on the process leader’s approach. It can be difficult for work environment consultants and occupational health care companies to take the role of process leader if they are not used to working in that way.

**Transferability**

The process has been developed by researchers during interactive research projects with SMEs. In order to make the process available to more companies, one-day courses about the method have
been given to supporting service companies on two occasions. The supporting service companies that participated found these courses valuable. Some of them have used the method and others are marketing it to companies. So far the process has only been used in Sweden, and the material is in Swedish.

The *Questionnaire Concerning Attractive Work* was produced in Swedish on paper. The questionnaire has been translated into English by Högskolan Dalarna, and, in cooperation with international colleagues, to Finnish and Dutch as well. Further collaboration is planned to study the similarities and differences between countries. In order to make it easier to manage the questionnaire, a web-based version has been developed.

**Expected effectiveness and impact of the interventions**

Each company formulates their own goals for the Attractive Work Process. One commonality so far is that the companies want to work with their human resources. They want to take actions toward more attractive work so employees will stay at their jobs and be engaged. This is expected to lead to increased competitiveness for companies. In any case, it is not easy to isolate the Attractive Work Process and evaluate whether it has contributed to more attractive work. Our experiences so far offer some indicators that the process is successful:

- Some companies which have gone through the process want to do it again.
- The process itself engages the employees, which is one part of the definition of Attractive Work.
- Some companies have expressed that they are very satisfied with the Attractive Work Process.

1 A promoting perspective can here be described as when an area in need of development has been identified, the focus on what the goal is and how it can be reached, not on what has gone wrong before and who is to blame.

2 For more information about the evaluation of support and education around methods and processes for more attractive work to supporting service companies, see Hedlund & Pontén (2009) *Supporting service companies*. Paper USE2009.
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Presentations, session WS2.3
Chairs: Ann Hedlund, Theme Working Life, Sweden, and Tilde Rye Andersen, TeamArbejdsliv (TeamWorklife), Denmark

Time: Friday 23 October, 11.15-12.45
Location: Atrium hall
‘Healthier Entrepreneur - Healthier Enterprise’
by S. Visuri, MSc (Health Sciences), Research Scientist & H. Saarni, MD, PhD, Adjunct professor, Chief Medical Officer, The Finnish Institute of Occupational Health (FIOH), Turku, Finland
H. Wibom, Managing Director, The Federation of Finnish Enterprises/The Regional Organization of Enterprises in South-West Region, Turku, Finland

Self-employed and micro-scale entrepreneurs are work-oriented persons, whose thoughts are, naturally, in business. Own health is forgotten as the fact that health is an important part of successful entrepreneurship. To get entrepreneurs to realise this side of entrepreneurship FIOH and the regional association of enterprises started a project called "SYTY2000® Healthier Entrepreneur - Healthier Enterprise".

Aims of "SYTY2000®":
- To get entrepreneurs see the effects of their own health to their daily work.
- To build up a network between entrepreneurs and local health service providers.
- To activate entrepreneurs to get occupational health services (OHS) for themselves.
- To help OHS units to find new ways how to support micro-scale enterprises.

Methods:
- Self-assessment forms of working conditions and health were developed for entrepreneurs.
- Open access events about health and business were organized to entrepreneurs.
- Local associations of enterprises were supported to improve their members well-being among associations' normal activities.
- Meetings were arranged between local associations of enterprises and local health service providers.
- Personnel of OHS units were trained to understand the effects of entrepreneurship to the health of entrepreneur.

Results and discussion: Entrepreneurs have started to pay more attention to their health. Local associations of enterprises are organizing health promoting events to their members. Meetings between local associations of enterprises, OHS and other local health service providers succeeded in introducing these parties to each other. A new model of arranging OHS to entrepreneurs was developed and OHS are, slowly but surely, learning to use it. Altogether attitudes to the importance of health as part of entrepreneurship are clearly more positive now than 13 years ago when SYTY2000® started. However, there is still work to do before health promotion is a natural part of entrepreneur’s daily life.
Healthier Entrepreneur - Healthier Enterprise

Authors
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Abstract
Entrepreneurs' thoughts are in business and the fact that health is an important part of successful entrepreneurship is forgotten. The aim of "SYTY2000®-programme was to activate entrepreneurs to maintain and improve their health and well-being along their daily working life. Methods used were open access events about health for the entrepreneurs, development of self-assessment forms of working conditions and health, training of OHS and support to the local associations of entrepreneurs to improve their members' well-being during the programme. Entrepreneurs have started to pay more attention to their health. Local associations of enterprises are organizing health promoting events. Meetings between local associations of enterprises, OHS and other local health service providers succeeded in introducing these parties to each other. A new model of arranging OHS to entrepreneurs was developed and OHS are slowly learning to use it. In general the culture of entrepreneurs is today more health-supportive than earlier.

Key words
self-employed, entrepreneurs, health promotion, occupational health services, network

Introduction
In Finland the significance of small (1-49 employees) and medium-sized enterprises (50-249 employees) to national economy has increased during last 10-15 years. Also their ability to employ personel has become more essential and the major growth in personel has actually happened within
the micro enterprises. At the moment, 93 % of all enterprises in Finland belong to this category. In persons this means over 340 000 entrepreneurs and employees altogether (Statistics Finland 2009).

These micro enterprises have one special commonality; they all are entrepreneur-centred. In other words entrepreneur's skills, knowledge and ability to take risks are vital to the successfull business (Littunen 1994). This fact has been recognised for a long time, but entrepreneurs' health and well-being have however not be seen as a vital part of entrepreneurship. Not even though there is a correlation between entrepreneur's health turning worse and business going worse (Luoma 1997; Pakkala etc. 2002).

Challenges to micro entrepreneurs' health promotion can be seen by understanding the nature of entrepreneurship. The Oxford English Dictionary (2009) defines an entrepreneur as "one who undertakes an enterprise; one who owns and manages a business; a person who takes the risk of profit or loss".

What kind of a person is an entrepreneur who can meet this challenge? S/he is often work-oriented, self-confident, creative, independent, determined and is able to take risks (Laitinen 1986, Peltonen 1986, Jonninen 1995). S/he is working an average of 50 hours per week and is off duty an average of 12 days per year (Pakkala & Saarni 2000; Hietala 2009). The positive sides of entrepreneurship are described to be freedom, work's demands and control over one's work. On the other hand there lies a risk behind all this; the work can take over the other sides of life including taking care of one's health and well-being. (Kaarlela etc. 2001.)

The attitudes, beliefs and way of action of a micro entrepreneur are often tied to the current entrepreneurial culture. This culture often emphasizes the work and no or minor attention is paid to health. Even though Borg and Borg (1998) have discovered that the biggest single risk for the enterprises is, according to the entrepreneurs in small and medium-size enterprises, an entrepreneur's sickness or disability to work. On the other hand, entrepreneur has to believe in herself, look wealthy and be optimistic about health. Pakkala and Saarni (2000) found out that entrepreneurs' estimation about their health was more optimistic than medical doctors' objective appraisal. It also seems that micro entrepreneurs do not necessarily recognize the health risks of their work and working environment. (Kaarlela etc. 2001; Naumanen etc. 2006).
Occupational health services are one of the natural partners when talking about health promotion in the working life. In Finland, the employers need to arrange the occupational health services (further OHS) to their employees since 1978, based on the Occupational Health Care Act. For the entrepreneurs themselves this is voluntary. At the moment the employers have arranged OHS to about 90% of employees. Only 15-30% of entrepreneurs have arranged OHS for themselves (Manninen etc. 2006). The reasons for the low coverage of OHS among entrepreneurs have been explained mainly by following: entrepreneurs are not aware of their possibility to arrange services for themselves and they do not know the services provided by OHS. On the other hand the OHS do not know well enough the aspects of micro entrepreneurs and enterprises and so they have difficulties to offer proper services for entrepreneurs. In addition the resources and costs of OHS have been claimed to be one possible obstacle to execute OHS to micro entrepreneurs and enterprises. (Pakkala etc. 2005.)

Nationwide entrepreneur organizations have been active in Finland for more than 100 years, beginning in 1898. The Federation of Finnish Enterprises is constructed of the comprehensive network of 21 regional organizations, under them 412 local associations and 51 trade organizations. (Federation of Finnish Enterprises 2009.) The Regional Organization of Enterprises in South-West Region is one of the regional ones and it has 36 local associations.

Associations of entrepreneurs and enterprises are lobbying for their members. Traditionally these organizations have concentrated on taxation, labor policies, legal issues dealing with enterprises and entrepreneurship training. They have a firm network of entrepreneurs and they do speak the same language with them. These associations could be the ones to support entrepreneurs' to take care of their health and well-being as a part of successful entrepreneurship.

Along with OHS and local associations of entrepreneurs, there are other enterprises and associations, which can promote entrepreneurs' health. These are for example organizations and associations in public sector (public health organizations, sports organizations), private health and sports services enterprises (e.g. physiotherapist, pharmacies, gyms), municipal activities in health, sports and culture. There are also companies which give assistance in developing working environment. There is a true possibility to build up a health network which can reach and support the entrepreneurs and also give a hand to each other in daily work.
Approach and methods
Since 1995, the Finnish Institute of Occupational Health (Turku Regional Office) and the Federation of Finnish Enterprises/The Regional Organization of Enterprises in South-West Region have co-operated to implement SYTY2000®-programme (Picture 1). The programme is focusing on the health and well-being of entrepreneurs. The implementation of this programme is done within three different target groups, with the entrepreneurs, with the occupational health services and with the local member associations of the Regional Organization of Enterprises in South-West Region.

The entrepreneurs
The aim was to get entrepreneurs take into the consideration the aspects of health in their daily work and life and to activate entrepreneurs to take care of their own health and well-being. To educate entrepreneurs about the aspects of health, the project organized open access events to the entrepreneurs around south-west Finland. Topics of those evenings considered entrepreneurship's effects on entrepreneurs health, tips and tools to promote own health and well-being, occupational health services for entrepreneurs and introduction of local firms and associations which can help entrepreneur to take care of oneself (for example sports and health associations, gyms).

Occupational health services are natural partners, what comes to the promotion of work-related health and working environment. Because only about 15-30 % of entrepreneurs had arranged occupational health services, the programme decided to develop and publish a booklet called "Occupational health services for entrepreneurs". It contains common knowledge about occupational health services and how to arrange occupational health services. The main thing of the
Picture 1. SYTY2000® -programme.
booklet however was self-assessment forms about health and working environment. These forms were thought to work like mini-intervention; to get the entrepreneurs to sit down and to think about their own health and working environment. The self-assessment forms are also available in the internet both Finnish and Swedish (www.syty2000.fi). To ease the entrepreneur's step to contact local OHS, the model forms to invite tenders, to do an agreement with OHS and an example plan of OHS in practice were also included to the booklet.

**Occupational health services**

The OHS didn't have enough knowledge about the nature of entrepreneurs' work and health. So to help personnel in OHS to understand entrepreneurs and also to find new ways to work with small scale enterprises, a new, cost-effective model how to arrange OHS to small and medium size enterprises was developed. This model and other information about the work and health of the entrepreneurs were introduced to personnel of OHS in refresher courses. Also the forms, published in booklet mentioned earlier, were delivered to OHS to help them work with the micro enterprises.

**The local associations of entrepreneurs**

The aim of the project was to get the members' health as a goal of local associations of entrepreneurs. During the project persons responsible for well-being were appointed to the local entrepreneur associations and almost every local associations chose the person from it's board. The work of these persons was to act as co-ordinators and spokespersons at the local level. Within the framework of the project, they were trained and orientated to become spokespersons for health and well-being experts in terms of the health services directed at entrepreneurs. After this training the project kept supporting them by sending written material (e.g. nutrition, sports, OHS, weight management, first aid instructions, quitting smoking) once a month.

Local partnership meetings were arranged to activate local health networking. The programme invited persons to the meetings from the local entrepreneur's association including the person responsible for well-being, from the local OHS, from other health care providers (private and municipal) and local trade promoters.
**Results**

The booklet of "Occupational health services for entrepreneurs" were delivered to entrepreneurs via the local associations of entrepreneurs, altogether 56 000 pieces nationwide. It has helped entrepreneurs to understand the functions of OHS and also motivated them to take care of their own health. Couple of thousands of visitors have been filling the electronic self-assessment forms in the internet-pages of the programme (www.syty2000.fi).

The work is still, naturally, the first in entrepreneurs' thoughts. But entrepreneurial culture is changing little by little. Entrepreneurs are more interested in attending to the fitness improvement courses than before. They want to use more OHS to improve their health. Entrepreneurs even say aloud, that they would like to keep more days off from the work than they can at the moment (Hietala 2009).

The new, developed model of OHS is based on the self-assessment forms of health and working environment. The self-assessment forms are delivered to entrepreneur by her/his OHS. The entrepreneur fills them and then s/he mails the forms back to the OHS. Then the OHS estimate the situation based on filled forms. If there are problems in health or working environment or both, the OHS contact the entrepreneur and agree with s/he for the further activities (health check ups, medical care, health risk assessment at work, utilizing local network). Otherwise the new contact is taken after a year by the OHS. (Picture 2.)
The persons responsible for well-being have succeeded in their work. There has been an increase in the activities of the local associations of entrepreneurs from year 2005 to 2007 (Picture 3). Work of these persons is based on voluntariness; their get their bread-and-butter from their enterprises.

The meeting between local association of entrepreneurs, local OHS, other local health care providers (private and municipal) and local trade promoters were seen important. In general there was no continuation after the first organized meeting. Mainly the reason was, that were no active person(s), who have time and enthusiasm to arrange the meetings in the future.
Picture 2. The activities arranged to improve health and well-being of entrepreneurs’ by the local associations of entrepreneur (% of local associations).

Conclusion
Being a micro entrepreneur is a way of living. During the long days of working, it is easy to leave taking care of oneself behind. To take care of her/himself, the entrepreneurs do need to get information about how to take care of their own health and work ability. The SYTY2000®-programme has based, from the very beginning, to needs and thoughts of entrepreneurs. Both planning and implementation of the programme has been made in co-operation with regional and local associations of entrepreneurs.

The persons responsible for well-being in the local associations of entrepreneurs have reminded entrepreneurs, that health and well-being belong to entrepreneurship. They have organized associations health promotion action together with the members of the association’s board. Even
though this system works mainly very well, the persons responsible for well-being need education and tips how to take care of this voluntary post.

Health networking is still quite a new idea in the field of occupational health and safety. Being a part of a health network both eases the work done by the OHS and gives more parties to entrepreneurs and to the associations of entrepreneurs to turn with when support or help is needed. The new model of OHS to micro enterprises is based to the idea that with the assistance of self-assessment forms it is possible to recognize the entrepreneurs and enterprises, which are in need of support. OHS can then focus their resources to the ones' needing for treatment or support. In this way, the practice work in OHS is cost-effective both customer and OHS themselves.

The health of an entrepreneur has not been a part of the traditional entrepreneurial culture. Changes in the culture are usually occurring slowly. In SYTY2000 -programme we have had chance to see positive progress happening among the entrepreneurs and OHS. However, there is still a lot to do, the trip has just begun.

We have a pleasure to thank the European Union/European Social Fund (ESF) for their financial support to the SYTY2000 -programme.

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Manninen, Mikkola, Reijula, Tiala, Salminen, Toivanen & Viluksela (eds.) Työ ja terveys -
Abstract:

‘Network of Professional Competence, 2004-2007’
by Kari Ojanen, M.Sc. (Tech.), Senior Specialist, Finnish Institute of Occupational Health, Kuopio, Finland
Veikko Louhevaara, Ph.D., professor, & Marja Pitkänen, M.Sc., researcher, University of Kuopio, Finland

Finnish private nursing service providers want to fulfil the same continuous further education criteria than those in the public sector. That was one major reason to arrange this kind of large development and training project. The project's aim was to increase the professional expertise and support of workers in private nursing homes via increased co-operation between the Finnish Institute of Occupational Health (FIOH), other providers of training and business. The overlying objective was to further develop the workplace knowledge network and working life in the North Savo region of Finland. Some 2 200 participants from over 180 organizations participated in the project, which encompassed approximately 13 500 working days and 1 800 separate training meetings.

Implementation: The project made use of the latest research reports from FIOH and other research institutes concerning the social and nursing sectors. The project can be implemented in all areas of Finland and, if needed, can also be used in other Nordic countries. Project activities focused on two areas: the professional skills development of corporate staff by means of education and consultations, and support for occupational health and well-being at work by means of job control.

Impact: There was a clear need for competence development among the personnel of the private nursing homes in question. FIOH organized a network of training institutes and nursing homes and, after the project was successfully executed, several notable impacts could be observed, including:

- Implementation of systematic quality control and total quality management systems in North Savo nursing home enterprises, along with successful certification
- Establishment of Internet-based marketing and information databases for the nursing homes
- Enhanced professional skills of the personnel
- Implementation of professional training and examination for private nursing home businesses
- Creation of networks among the companies participating in the project
- Production of an Internet-based learning environment on Ergonomics (Ergonetti, http://www.oppi.uku.fi/ergonetti/ )
- Completion of two Master’s theses:
  a. Risk control as a part of Total Quality Management in North Savo nursing homes
  b. Measuring the economics of North Savo nursing homes

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Abstract
Finnish private nursing service providers want to fulfil the same continuous further education criteria than those in the public sector. That was one major reason to arrange this kind of large development and training project. The project's aim was to increase the professional expertise and support of workers in private nursing homes via increased cooperation between the Finnish Institute of Occupational Health (FIOH), other providers of training and business. The overlying objective was to further develop the workplace knowledge network and working life in the North Savo region of Finland. Also, the Ergonetti a Finish web-based university-level instructional learning program about ergonomics and workplace health promotion was evaluated. Some 2 200 participants from over 180 organizations participated in the project, which encompassed approximately 13 500 working days and 1 800 separate training meetings.

Key words
Professional competence, small enterprises, private nursing service providers, ergonomics

Introduction
Private nursing in Finland is rapidly growing branch. During last decade the growth has been threefold. There are three main actors in Finland taking care of nursing activities. The greatest share has the communes, about 70 % of the total turnover on the branch, then different kind of foundations 17 % and private nursing service providers 13 %. The total labour of nursing activities in Finland is about 16 000. (Finnish Ministry of Employment and the Economy et al. 2008) Concerning commune nursing service providers there is law-based commitment for the personnel to
be further educated at least three days yearly. Finnish private nursing service providers want to
fulfil the same continuous further education criteria than those in the public sector. That was one
major reason to arrange this kind of large development and training project. The project's aim was
to increase the professional competence of the participants and support of workers for health and
well-being at work in private nursing homes via increased co-operation between the Finnish
Institute of Occupational Health (FIOH), other providers of training and nursing business. The
overlying objective was to further develop the workplace knowledge network and working life in
the North Savo region of Finland.

There was also another objective in the project. During an earlier R&D project FIOH together with
the Open University of Kuopio developed Ergonetti, a Finnish web-based university-level
instructional learning program about ergonomics and workplace health promotion. In this project
we wanted to evaluate the Ergonetti program. (Pitkänen, et al., 2008)

European Social Fund together with the participating private nursing service providers financed the
project. Participating of the whole personnel was possible and desirable, including the acting
management of the companies.

**Approach and methods**

The project made use of the latest research reports from FIOH and other research institutes
concerning the social and nursing sectors. Project activities focused on two areas: the professional
skills development of corporate staff by means of education and consultations, and support for
occupational health and well-being at work by means of job control. On the other hand, those both
goals support one another. The main "products" of the project for the private nursing service
providers were:

- development analyses for companies
- training and consultation for each company or company groups
- each employees personal training programs
- company networks
- support for health and well-being at work mainly by means of job control
- further support the utilization of the ergonomics skills learned via Ergonetti
- evaluate the impact and good practises of the Ergonetti in the selected companies
After every training and consultation wholeness written feedback was asked from every participant. Also every participating company after two years from the beginning of the project and at the end of the project a questionnaire concerning the benefit of the project to the company was done. The project was also from the beginning to the end evaluated by an external evaluator. The experiences in the companies concerning Ergonetti impact were collected by theme interviews. Both Ergonetti program students (n=7) and their colleagues (n=18) were interviewed. Qualitative data were analyzed with the inductive content analysis (Atlas.ti 5.0 software). (Pitkänen, et al., 2008)

Results

The final objective of the project was to increase the professional competence of the participants and support of workers for health and well-being at work in private nursing homes. This succeeded very well. Some 2200 participants from over 180 organizations participated in the project, which encompassed approximately 13 500 working days and 1800 separate training meetings during almost four years. About 90 % of the total personnel participated in at least one training or consultation wholeness arranged by the project. In average, each participant used six working days to participate training and consultation sessions. Majority (84 %) of the personnel in the companies were women and most of them were over 40 years old. (Ojanen, et al. 2008)

In the companies altogether 540 different development projects were carried out during the project. New services and products were introduced in 39 companies. The turnover did increase in 85 % and the number of clients in 75 % of the companies. Work ability supporting activities participated in yearly 400 - 650 persons. Also, cooperation with 270 different trainer and consultant was done. The student participants in Ergonetti program were well motivated to use the program which was considered to have a high quality of substance and technical usability. The students implemented their learning tasks in the close collaboration with their work colleagues. At workplaces, discussions about difficult problems increased the positive interaction of all personnel groups. Also several good practices could be identified and reported in the companies which were studied. Those good practices are included into the web site of the Finnish Institute of Occupational Health. (Pitkänen, et al., 2005)

According to the questionnaire made in the companies at the end of the project personnel evaluated the effect the project has had on following items in their company (n = 88). The scale was 1 = clearly impaired, 3 = no effect, 5 = clearly improved:
- productivity of the work 3,55
- quality of the products or services 4,04
- quality of activities (disturbances, mistakes...) 3,88
- ability to respond flexibly to the needs of customers 3,67
- teamwork 3,85
- cooperation between management and personnel 3,90
- possibility to develop professional skills 4,28
- activities to develop operations of the company 4,07
- mental well-being at the workplace 3,85
- physical working conditions 3,33
- status of older workers 2,96
- status of young workers 2,97
- equality between women and men 2,96
- welfare and managing at work 4,00
- success at the nursing work 3,83
- impact of the nursing work 3,83
- customer satisfaction 3,64
- follow up and evaluation of operations 4,07
- development of the processes and methods of the nursing work 4,16
- utilization of the teleinformatics (ICT) 3,34

The external evaluator (Finnish regional research, FAR) evaluated the project during projects whole duration. The total estimation of project was excellent. (FAR. 2009)

**Conclusion**

The development analyses of companies at the beginning of the project is very useful basis for planning future training and education programs. But it is also important to update the analyse regularly at least yearly.

In question of small enterprises, there must be a relatively large amount of same branch companies (here about 180) to be able to arrange training and education at reasonable price.
Most of the operations created under the project stayed alive also after the project. The small enterprises learned during the project to develop their personnel. They found out the great advantage of the continuous education and are also ready to pay of it. One good practice during this kind of long lasting project concerning financing of the operations was found. At the beginning of the project the European Social Fund financing share of the operations was about 80 % and the enterprise share 20 %. Gradually, during the project the enterprise share was enhanced up to 80-90 %. Without this kind of operation, at the end of the project the rise in price of unsupported training and education could be too much for the enterprises. Now they learned to pay the real prise gradually.

According to the questionnaire made in the companies the project was considered succeed. All the matters asked in the questionnaire were improved or were unchanged. The worst evaluations (value about 3 = no change) got matters which already before the project were in good order, like the status of older and young workers and equality between women and men. The biggest progress was reached in the quality of the products or services, the possibility to develop professional skills, activities to develop operations of the company, welfare and managing at work, the follow and evaluation of operations and the development of the processes and methods of the nursing work (value at least 4 = improved).

In this kind of European Social Fund project the documentation and reporting is laborious and detailed. Therefore also an Exel-software based data handling and database was created. In spite of the complete documentation the principle of the whole project was "Keep it simple". Therefore, the project could be easily implemented in all areas in Finland and, if needed, can also in other Nordic and European countries.

References


WS2.3-3 Abstract:

‘Health, Safety and Business development in Small Enterprises’
by Gunnar Lagerström, Prevent Sweden, Stockholm, Sweden

Background: Swedish enterprises are bound by law to implement systematic work environment management (SWEM) which purpose is to prevent ill-health and accidents at work and achieve a satisfactory work environment. Various studies have shown that SWEM is particularly lacking in small businesses with 1-50 employees.

Method: Prevent has developed a concept whereby SWEM can easily be incorporated into a business as a natural part of its development. This concept has been tested in a project running over 2 years. The project was run in collaboration with regional representatives of the parties in the labour market and in the end with occupational health services. Businesses interested in developing their work environment were offered training in groups comprising around 10 companies. One member of the management team and one representative from the staff of each company take part. The training was conducted by a consultant and was divided into four sessions over six months. During the course of the sessions, the participants are given better knowledge and skills in order to incorporate the training into their own businesses. In between sessions, participants apply their newly acquired knowledge to their own businesses.

Objectives: The overall aim of the project was to increase the number of small businesses that use SWEM. This aim was divided in three objectives:
- 1350 small businesses have incorporated SWEM in their business development.
- The small businesses have positive attitudes to SWEM and business development.
- The occupational health services have adapted the concept and offer it to their costumers.

Results: 1 100 businesses joined the project, taking part of approximately 125 training courses. The participant’s assessment of the training has been evaluated by means of a questionnaire. The questionnaire contains a total of 20 questions with a scale of 1 to 5 where 5 is the highest value. The typical result lies in between 3.7 to 4.7. About 50% of the participants who responded to the questionnaire want to continue the meetings even after finalizing the training courses.

Conclusions: The first, and perhaps most important, conclusion is that that small businesses can see the use of SWEM if it can be seen as part of their business development. The second conclusion is that the training method with different sessions during a longer time suits small businesses. The third conclusion is that cooperation with the occupational health services can be effective in the dissemination of knowledge to small enterprises. One big difficulty which was underestimated in the project was the process of recruitment to the training.
Paper

Health, Safety and Business development in Small Enterprises

Author
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Abstract
Various studies have shown that systematic work environment management (SWEM) is particularly lacking in small Swedish businesses with 1-50 employees. During 2004-2007 a project was run in order to encourage Swedish SME:s to improve their SWEM in training groups according to a special concept whereby SWEM could easily be incorporated into a business as a natural part of its development.

1,100 businesses joined the project, taking part in approximately 125 training courses. Taken overall, participant assessment of the training was positive.

The first conclusion of the project was that small businesses understand the usefulness of SWEM when seen as part of their own business development. The second conclusion is that the training method incorporating different sessions over a longer period of time suits small businesses. The third conclusion is that cooperation with the occupational health services can be effective when disseminating knowledge to small enterprises.

Key words
Working environment, business development, small enterprises

Introduction
Swedish enterprises are bound by law to implement systematic work environment management (SWEM) the purpose of which is to prevent ill-health and accidents at work and achieve a satisfactory work environment. Various studies have shown that SWEM is particularly lacking in small businesses with 1-50 employees. Consequently, the intervention project “Successful Small Enterprises” was set up, with Prevent acting as the executor on behalf of their labour market
partners – the Confederation of Swedish Enterprise, the Swedish Trade Union Confederation (LO) and the Council for Negotiation and Co-operation (PTK). Financed by AFA Försäkring, the project was started up in the autumn of 2004 and continued until March 2007, covering 10 of the 21 Swedish provinces. The primary target group being small private Swedish companies with 1-50 employees.

The overall objective of the project was split up into three parts:

1. 1,350 small companies invest in business development (BD) and systematic work environment management (SWEM)
2. small companies exhibit positive attitudes towards business development and SWEM
3. established or expanded cooperation in respective provinces. 20 occupational health services had been recruited and took a training course in cooperation with the project.

**Approach and methods**

The basic idea of the project was to encourage companies to regard systematic work environment management as a natural part of their business development. For business to develop by means of better working conditions. This idea is supported by SWEM and business development features a common process described by figure 1.

![Figure 1. The common process for SWEM and business development.](#)

To increase the companies’ knowledge and influence attitude towards working conditions, a separate training concept was developed based on existing Prevent material. The concept used local groups of around ten companies each, in which each company would preferably participate with representatives from both management and personnel. The group met about four times every six months, see figure 2.
Figure 2. Training in step with practical work in respective companies.

Lead by a consultant and helped by the exchange of experiences, the companies were able to develop working conditions and business step-by-step. Companies paid only for material costs for their participation in the course, and this was far below the actual cost of the training course. In order to start up these courses on a nationwide basis, companies were recruited by such means as the distribution of 35,000 information sheets, 125 information meetings and 13,000 telephone calls.

Results
To follow-up on project objectives, measurements were taken using three different questionnaires and a series of telephone interviews, see figure 3. Please note that these measurements are by no means scientifically made and should not be taken as statistically accurate.

Figure 3. Three questionnaires used to measure project results.
The "Knowledge and Attitude" questionnaire is made up of two parts. The first examines how much knowledge small companies have and how this is applied in their work with managing working conditions and developing business. These questions are answered with a simple yes or no. The second part examines small company attitudes to the long-term effects of SWEM and business development. This contains a number of assertions that the participant is asked to mark on a scale of one to ten, with ten being the highest mark. The questions are the same irrespective of when measurements were made.

Measurements have been made on three occasions:

1. "Zero measurement” at the start of the project in late 2004. This took the form of a telephone interview of managing directors of 540 companies and was based on a random selection of small companies with five to fifty employees from the ten provinces. The measurement provides us with a neutral control group. The control group result was then compared with companies that had participated in the project.
2. "Start”. Using a printed questionnaire to all those who participated at the first meeting. The questionnaire was distributed during the second quarter of 2005.
3. "Finish”. Using a printed questionnaire to all those who participated at the last meeting. The questionnaire was distributed during the final quarter of 2005.

The answers from those who answered both "Start" and "Finish” questionnaires form the basis for some of the results shown below. 367 persons participated in a total of 63 training course classes.

The "Check list of company results” questionnaire comprises more ingoing questions concerning company working conditions activities related to the AFS 2001:1 directive and the targets set up for company participation. The checklist was answered by the consultant together with each separate company at the last meeting.

The "Course assessment” questionnaire comprises questions primarily concerned with the execution of the training courses. The questionnaire was distributed among the participants at the last meeting.
The result of the first part – 1350 small companies carry out business development and systematic work environment management activities.

- 1,266 companies registered for the course and 1,098 participated in at least one meeting.
- Almost 50 percent of the companies participated at all course meetings.
- The course was given high marks by all participants according to the 880 course assessments received. The questionnaire contained 20 questions on a scale from 1 to 5 with 5 being the highest grade. The average result was somewhere between 3.7 and 4.7. Almost 50 percent of participants said they would like to meet up again after the course had been completed.
- The companies that participated in the course were clearly not as proficient in business development and working conditions management as compared with the selected neutral control group.
- The companies that participated at the last meeting had surpassed the control group in terms of work with analyses and action plans for SWEM.
- 84 percent, or 463 of the 550 companies, that responded to a separate questionnaire; "Checklist of company results" had drawn up business action plan after the project had been completed.
- 52 percent, or 276 of the 533 companies, that responded to the check list had drawn up an business action plan, written risk assessments, action plans for SWEM and a written working conditions policy after the project had been completed – that is to say, four documents stipulated by the Swedish directive for systematic work environment management.

The result of the second part – Small companies exhibit positive attitudes to business development and SWEM.

- Companies that participated now considered, to a far greater extent than the selected control group, that SWEM was of importance to business development and competitive power.

The result of the third part – Established or expanded cooperation in all provinces.

- 11 occupational health services were recruited and carried out 15 courses in the project. These participants also announced their intention of independently continuing with similar training after the project was finished.
Conclusion
The first, and perhaps most important, conclusion is that small businesses can see the use of SWEM if this can be seen as part of their business development. The second conclusion is that training methods using different sessions over a longer period of time suit small businesses. The third conclusion is that cooperation with the occupational health services can be effective in the dissemination of knowledge to small enterprises. One major difficulty, which was underestimated in the project, was the process of recruitment to training courses.

Ten reasons for the success of the project
When evaluation the project the project group has concluded that its success was due to the following ten reasons:

1. Labour market parties supported the project. Our initial contact with the companies was made considerably easier owing to being able to refer to these parties in information we provided in the form of telephone calls and information meetings. This in turn made a significant contribution to our success in recruiting such a large number of companies.

2. A centrally controlled recruiting process incorporating direct mail, telemarketing and personal meetings with companies at specially arranged information meetings was a decisive factor to the success of recruiting.

3. Training course accessibility. Courses were arranged at different periods and on geographically nearby company premises.

4. Cooperation with occupational health services. By means of cooperation with occupational health services we reached more companies. At the same time, a favourable platform was created to facilitate the continued vitality of these activities post project.

5. Cooperation with parties at the regional level. By means of cooperation we were able to customise work to fit in with the conditions and opportunities provided by each individual province. For example, for the purpose of recruiting companies to the course we participated at meetings arranged for small companies by the trade organisations.

6. Overall perspective of the training courses. SWEM has been positioned as a natural part of business development.

7. How the courses were arranged. The courses were arranged to provide several meetings over a period of time with work delegated between meetings to ”oblige” the companies to work
with their own companies, to provide time for reflection and time to form relationships between companies. Participants included both management and employees.

8. The training courses were target oriented but not detail orientated. Clear objectives for the courses were set up, but freedom for selecting more advanced areas of activity was provided for the individual company. This gave the consultant opportunities to adapt meetings to fit individual requirements and for companies to act according to their operating conditions. In most cases the course participants comprised companies from differing branches and with companies featuring different levels of both working condition standards sand general business development.

9. Cooperation with consultants. The execution and quality of the training courses was provided and enhanced by highly skilled consultants. Separate supervisor training courses were organised with occupational health service educators.

10. Many win-win situations arose from the cooperation between the parties involved, the consultants and the occupational health services owing to the presence of common and complementary interests within the different groups.

*Possible alternative methods of executing the project*

Looking at the final results it is difficult to refrain from wondering whether or not anything ought to have been done differently. Could we make any adjustments to the execution of the project but retain the same objectives and means? Based on this treatise, an alternative method could look something like this:

- More time allotted to the start of the project in each province. This would establish even better cooperation – a cooperation that would involve occupational health services from day one.

- Decentralised recruiting via occupational health services and centralised recruiting supported by the TM company taken on for the second half of the project. This model would reduce recruiting costs calculated per company.

- An increase in the registration fee from SEK 1,000 to around 3,000-4,000 would probably improve attendance figures – even though recruiting would be made more difficult

- Insistence that companies provide two participants – one from management and one from personnel.

- A half-day consultancy visit on site at each company.
These recruiting models and the increase to the registration fee would finance a half-day consultant visit on site to each company. Correctly executed, the consultancy visit would help the company to establish project development work with company personnel, while company management commitment to the project would be strengthened. Firmer establishment and more commitment combined with a higher registration fee would probably result in better course attendance. Better attendance, a more visible internal commitment from management and two participants from each company could be expected lead to still better results for the company.

**Follow-up project for Successful small enterprises.**

During 2008 Prevent drew up a complete training concept based on the Successful small enterprises project. The concept has been created primarily for use by occupational health services for the purpose of positioning working conditions management as a logical part of business development and control. The concept now has 100 supervisors and comprises:

- Two short texts
- Curriculum with timetable and supervisor manual
- Slides for training course meetings
- An extra net [www.foretagsam.net](http://www.foretagsam.net) featuring this supervisor material plus templates and check lists (tools) for training course participants and others.

Moreover, during 2009 Prevent has placed a calculation tool on the Internet [www.lonsam.net](http://www.lonsam.net). The purpose of this tool is to simplify financial calculations for working conditions investment to enable these to be compared with other company investments. Additionally, the tool can be used to produce key figures for overall control of operations. The tool will prove helpful when used in the training concept.
‘Value based management – success on a farm’
by Helle Birk Domino, Working environment consultant, Danish Agricultural Advisory Service, Denmark

We have investigated the influence of a particular management concept on the working environment on a farm as well as which political strategies lie behind the management concept. We have chosen a farm that is considered trend-setting and unique in the way it is run and organised. The study is based on nine interviews with people who are all associated with the farm in different ways.

The conclusion is that the strategy behind the management concept has been to create a farm that is highly regarded among external interested parties as well as to create a good working structure for the employees with a high degree of focus on the physical as well as the psychological working environment. However, the resulting standardisation of the farm production poses a challenge to the employer in relation to accommodating the individual employee’s need for opportunities in the work and development.
Value based management – success on a farm?

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Abstract
In this essay we investigate the influence of a particular management concept on the working environment on a farm as well as we investigate which political strategies lay behind the management concept. We have chosen a farm that is considered trend setting and unique in the way it is run and organised. The study is based on nine interviews with people who are all associated with the farm in different ways.
The conclusion is that the strategy behind the management concept has been to create a farm that is highly regarded among external interested parties as well as to create a good working structure for the employees with a high degree of focus on the physical as well as the psychological working environment. However, the resulting standardisation of the farm production poses a challenge to the employer in relation to accommodating the individual employee’s need for opportunities in the work and development.

Key words
Agriculture, management concept, working environment, leadership, value-based management
Introduction
Agriculture is going through a process of change. Especially the pig farms are achieving a size where more systematic management is required. Culturally focus on the working environment has been peripheral. Production has been the primary concern and communication between managers and employees has taken place in a casual way while working. Today several farms may have one owner and thus, though it counts as one formal workplace, there are several individual physical workplaces. From this new challenges arise. Since one of these challenges has been to secure an adequate workforce we believe that in the future there will need to be a high focus on employee satisfaction in order to keep the employees and in order to recruit a good workforce in adequate numbers. In cooperation with an external consultant the farm we have chosen has worked intensively on building a work culture on the farm and has been very conscious about putting together the right group of staff. A staff where the “chemistry fits”, where people get along, and where cooperation works well. The management’s philosophy is that the employees are the centre of rotation for ensuring a well working production. The better conditions for the employees the better the production results.

The problem statement of our report will be:

*Which influence does the management concept have on the working environment on the chosen farm and which political strategies lay behind the management concept?*

In order to support the problem statement we evaluate that it is necessary to highlight the process during which the management concept is created and implemented. In this connection we will investigate the role of the external consultant in the process.

We are interested in the workings of the social structures on the farm. We are interested in how the management develops and holds on to the intended culture, and we will investigate whether this culture influences the level of production.

Our hypothesis is that there is a consistent political strategy behind the existing concept, and in this report we will investigate the policies behind the management concept. Further we will answer the above questions about the existing culture, employee satisfaction, and the role of the consultant in the change process.

Approach and methods
We have chosen to look at change management and management concepts in order to achieve an understanding of the processes and changes that have taken place on the farm, and to look at the
processes that are needed in order to make the farm able to achieve the intended objectives. Based on the principles of change management and management concepts we will describe the reality in which the farm is going through these changes. We have chosen the qualitative interview as the method for our investigations of the influence of the farm’s social system on the working environment and the role of an external consultant in relation to working environment-promoting actions. We have interviewed nine persons – two consultants and seven from the farm – according to an interview guide developed for this purpose.

Results
In order to accommodate the above philosophy and turning philosophy into practice, the farm has chosen to take its starting point in value based management. Kamp et al. (2005) point out that one of the many plusses in this concept is that the individual employee will undertake a greater responsibility for the work to be done, and commitment will increase. Based on the collected empiricism it is our belief that the management concept has meant that the farm employs a very loyal staff who are very enthusiastic about their work, who take production seriously, and who are proud of their workplace which also means that they won’t be looking for work elsewhere. The employees are convinced that the style of management is unique in the farming business and think that exactly this style of management has a part in making the work more exciting since they are allotted a lot of responsibility, and that they experience that their employer shows confidence in them. They experience that their opinions are taken seriously and that it is emphasized, that the individual employee is part of a solid community where you pull together.

The management concept is based on the values that have been formulated jointly. The values of the individual employee have been taken into account and a collective value base has been formulated through a process run by an HR consultant. This process has resulted in the values becoming the guide for the behaviour of management and employees. This complies with van Hauen et al. (1997). This is supported by the fact that several of the employees have not taken part in working out the values, but still act according to the basic values, and by the fact that new employees thrive in the existing culture. In this connection Beyer (2003) states that values are seen as timeless rules of life which is why values are maintained in spite of changing employees and new challenges.

Based on statements from the employer and the HR consultant it is our understanding, that the importance, which the employer ascribes to the identification of the culture bearer, is decisive for
the continuation of the existing culture. We see the fact that the employer is aware of the farm’s values and culture, in spite of the culture bearer being absent, as a sign of the importance of values and culture. Based on experience the employer wishes to maintain focus and thus diminish the risk of strong subcultures arising with the result that the original culture crumbles. The working environment consultant we interviewed confirmed that typically the employee turnover is high in farming, since often most employees are trainees and foreign workers. According to the working environment consultant this often leads to there being no culture bearer, and thus it is hard to establish a desirable culture. On this farm where the culture bearer is identified and made aware of his role, the wish is to restructure in a way that in the future makes the culture bearer the same person on all the farms constituting the one workplace, a person who in this way gets closer to all employees – a conscious choice in order to achieve and maintain a uniform culture on the farm.

The employer has chosen to incorporate value based management as a natural part of everyday life on the farm. During the process the employer will make a row of strategic choices in order to incorporate the concept and turn it into practice. The means chosen by the employer is finding the right business partners, running a value related process and identifying the culture bearer. The employer chooses to enter into close cooperation with an HR consultant who will catalyse the process in order to achieve a set of values with which all employees can identify. The wording of the values is not the decisive factor, a fact which falls in line with Beyer (2005), who points out that the decisive factor is the process where the values are stated. The culture bearer, who is an important person when it comes to maintaining the system over time, gets a lot of notice from the employer, and is made aware of his responsibility and possibilities for helping the concept along in practice – an important helper when it comes to keeping focus on the desired culture.

According to theory the value base becomes a signal internally as externally (van Hauen, 1997). The employees declare that they have good social relations to each other. Seen from the outside you get the feeling that there is a lot of focus on values and well-being. This can be interpreted as a sign of a humane part of the business which can be decisive for how the farm is viewed in the local community and in relation to recruitment. Employees who voice pride over their workplace are important ambassadors for the farm when they tell about the advantages of being employed on this farm. All employees have the opportunity of taking part in experience exchange groups where their accounts of the professional level (good key figures) and good working conditions can turn out to be important factors in relation to recruitment. A good reputation and goodwill in the local community can be decisive as well when it comes to recruitment and to a possible later expansion.
of the business and production. Letting the employees take part in experience exchange groups and promoting education are strategic choices that complies with the employees’ wishes for development, but this can also be a way of spreading the story about the good workplace, thus marketing the business to the surroundings.

In order to maintain morale it can be necessary to go for short term results (Kotter, 1999). Setting milestones in the change process and evaluating every milestone gives the opportunity to look forward to part results and celebrating a victory. Kotter (1999) mentions the short term results as a way of keeping up morale and showing the employees that the work pays off. On the farm we have chosen, they use the celebration of partial objectives achieved in this way. For instance they may set objectives for key figures, which are evaluated, and there is a reward when the objective is achieved. The employees talk a lot about the small victories and look forward to achieving the reward. The small victories which the management value very much we see as a motivational factor for the employees.

I order to achieve the best possible production the latest technology is used. The organisation plan has been created with the same objective in mind. Value based management is another part of the concept for maintaining production at the desired level.

**Conclusion**

With the size of farms today and with the conditions that exist for farming today, financial conditions will vary and influence the farms’ financial results. In connection with investments fundamental risks are taken and it is important to have a financial system that is able to absorb some of the fluctuations without pulling the carpet from under the farm.

Value based management is supposed to ensure the legitimacy in relation to business partners and the focus on internal values signals a well run business. To creditors good key figures signal effective production and trustworthiness. Thus the farm will find it easier to secure flexibility with these creditors. For the farm value based management is not a thing in its own but a tool that is used to achieve strong relations internally among the employees and externally to the creditors.

In order to fulfil the wish for good key figures the employer has focused on several areas like technology, organisation and employees. In order to actualize his ambitions for creating favourable conditions for the employees the employer has chosen to use the tool value based management. Involving a consultant has helped the employer to create a unique workplace, where reciprocity is decisive for the way that employees and employer create the working environment.
Concluding from the above our answer to the questions in the problem statement above is that the management concept on the farm we have chosen has had a positive influence on the employees’ loyalty to the farm and on their commitment to the work. Further, the employees are proud of their workplace; they thrive in their work, and don’t wish to work in any other place. However, the management concept – including the streamlining of production – has led to a new challenge for the employer in relation to accommodating the individual employee’s need for opportunities in the work and development. The strategy behind the management concept has been to create a business that is highly regarded among external partners and to create good working conditions for the employees with much focus on the physical as well as the psychological working environment. The change was only possible through the HR consultant, who has turned out to be an important partner and agent for change, and through the employer’s sincere commitment to the process.

Perspection
Others in the business inquire about the management concept on this farm. But can the concept be implemented on other farms at all? It is our understanding that it takes an employer who sees the advantages of a good psychological working environment for the employees and who likewise can see the advantages of this in his own daily work. It requires an employer who wishes to show leadership and who shows real commitment. As stated by the interviewed HR consultant: “Many wish to work with the development of a management concept, but there are those who are actually just buying indulgences: If we spend something on this, the problems will go away without personal involvement.”

We estimate that the concept cannot just be bought since it is a longer process where the individual farms focuses on its own values and culture. During the process it can be an advantage to involve a consultant who can work as a change agent. Involving a change agent may work as a binding factor in the process, supply tools for achieving the concept, and supply a person who can guide the process.

An intervention project has been started with working environment management as its focus point. During 6 months the process has been tested on 4 farms – 2 pig farms and 2 dairy farms – and the results are very positive. This supports our conclusion that the process works in connection with
working environment management, but that the process will run more smoothly if the employer has a genuine wish for improvement. Though employers have been sceptical it has turned out that implementing working environment management can be a practicable way for introducing a higher focus on the working environment and thus on safety in farming.

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WS3: 'Participatory approach improving OSH in SMEs and the informal sector'

Organizers:
Kazutaki Kogi, Institute for Science of Labour, Japan
Toru Itani, International Labour Organisaton (ILO), Switzerland

This workshop is aimed at examining advances in OSH practices in SMEs and the informal sector and discussing effective types of support tools for improving their workplaces.

Following introductory talks and presentations of good practices in different settings, participants will discuss common features of effective support tools, such as locally adjusted checklists and training modules.

Participants will then discuss how to design action-oriented tools suitable to small workplaces.
Presentations, session WS3.1
Chairs: Toru Itani and Kazutaki Kogi

Time: Wednesday 21 October, 15.15-16.45
Location: C-13
WS3.1-1 Abstract:

‘Advances in participatory approaches for achieving good OSH practices in SMEs and the informal sector’
by Toru Itani, International Labour Office, Geneva, Switzerland
Kazutaka Kogi, Institute for Science of Labour, Kawasaki, Japan

Participatory programmes for improving occupational safety and health are gaining importance particularly in small enterprises and the informal sector. This is seen in both industrially developing and developed countries. To examine necessary support measures, effective participatory steps for achieving good OSH practices in these workplaces are reviewed. This review is based on the recent progress in participatory training activities for small enterprises and the informal sector reported to the ILO. Many of these activities are based on WISE (work improvement in small enterprises) methods. The review focused on participatory steps building on local good practices. The relation of these steps to risk assessment and control steps in occupational safety and health management systems is further discussed.

The participatory steps reviewed commonly relied on learning-by-doing of low-cost good practices locally achieved. These steps led to many concrete improvements in multiple technical areas including materials handling, workstation ergonomics, physical environment and work organization. Advances are notable in the use of locally adjusted training tools represented by action checklists and group work methods concentrating on immediate implementation of practical improvements. In facilitating the participatory steps, it is found useful to (a) learn from good practices locally achieved, (b) focus on low-cost improvements reflecting basic principles of ergonomics and occupational hygiene in multiple technical areas and (c) aim at stepwise progress with the support of local trainers trained in the use of group work tools. Illustrated information on local good practices is useful as it means praise to local people and directly points to benefits. Thus, the combined use of good-practice examples and group work methods involving trained trainers can lead to many concrete improvements. Networking of these positive experiences is essential.
Paper

Advances in participatory approaches for achieving good OSH practices in SMEs and the informal sector

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Key word
Participatory approach, good practices, small and medium-sized enterprises, informal sector, risk assessment and control, training tools

Abstract
Participatory programmes for improving occupational safety and health are gaining importance particularly in small enterprises and the informal sector. This is seen in both industrially developing and developed countries. To examine necessary support measures, effective participatory steps for achieving good occupational safety and health practices in these workplaces are reviewed. This review is based on the recent progress in participatory training activities for small enterprises and the informal sector reported to the ILO. Many of these activities are based on WISE (work improvement in small enterprises) methods. The review focused on participatory steps building on local good practices. The relation of these steps to risk assessment and control steps in occupational safety and health management systems is further discussed. The participatory steps reviewed commonly relied on learning-by-doing of low-cost good practices locally achieved. These steps led to many concrete improvements in multiple technical areas including materials handling, workstation ergonomics, physical environment and work organization. Advances are notable in the use of locally adjusted training tools represented by action checklists and group work methods concentrating on immediate implementation of practical improvements. In facilitating the participatory steps, it is found useful to (a) learn from good practices locally achieved, (b) focus on low-cost improvements reflecting basic principles of ergonomics and occupational hygiene in multiple technical areas and (c) aim at stepwise progress.
with the support of local trainers trained in the use of group work tools. Illustrated information on local good practices is useful as it means praise to local people and directly points to benefits. Thus, the combined use of good-practice examples and group work methods involving trained trainers can lead to many concrete improvements. Networking of these positive experiences is essential.

Introduction

Participatory approaches are increasingly applied in workplace programmes for improving safety and health of workers in small enterprises and the informal sector. This is seen in both industrially developing and developed countries. The advantages of these approaches are widely recognized as a means of promoting initiative of local people and achieving workable solutions (Zalk, 2001; Khai et al., 2005; Itani et al., 2006). Participatory steps are usually organized in a locally adjusted manner so that they contribute to improving various forms of workplaces in their diverse conditions (Noro and Imada, 1991; Kawakami and Kogi, 2001; Hasle and Limborg, 2006; Kogi, 2008).

These participatory approaches place a special emphasis on supporting initiative of local people and on applying locally practicable improvements (Khai et al., 2005). It is important to know how these approaches can be effectively applied for improving working conditions in small enterprises and the informal sector despite many constraints (Kawakami and Kogi, 2001). Experiences in participatory approaches reported to the ILO for workplace improvement in many countries indicate the importance of an adequate set of action-oriented participatory methods. Many concrete workplace improvements are thus reported in small enterprises, construction sites, agricultural farms and working homes (Kawakami and Kogi, 2005; Itani et al., 2006; Hasle and Limborg, 2006; Kogi, 2008).

These recent experiences are reviewed to know what types of participatory steps are effective in these small workplaces. An emphasis of the review is placed on group work steps that build on local good practices. It is of special interest to know the relation of these steps to risk assessment and control steps taken in occupational safety and health management systems. In so doing, attention is drawn to the locally adjusted nature of improvement steps taken by almost all the participatory programmes reviewed. The use of action-oriented training tools facilitated by trained trainers is highlighted. Practical hints for spreading workplace improvement programmes in small enterprises and the informal sector particularly in developing countries are discussed.
Methods

Recent experiences reported to the ILO from participatory approaches effective for workplace risk reduction in different work settings are reviewed. These experiences include those gained in an Asian inter-country network (http://www.win-asia.org) for improving workplace conditions in small workplaces. The reviewed programmes include: (a) action training courses applying the WISE (Work improvement in small enterprises) methodology developed by the ILO (ILO, 2004); (b) training workshops for farmers applying WIND (Work improvement in neighbourhood development) methods similar to WISE methods (Khai et al., 2005); (c) participatory training of home workers using WISH (Work improvement for safe home) methods (Kawakami and Kogi, 2005); (d) action training of trade union members applying POSITIVE (Participation-oriented safety improvement by trade union initiative) with the support of the Japan International Labour Fundation (Kogi, 2008). The approaches taken by these programmes are compared. The review includes action training packages used in these programmes and the types of improvements achieved by them. The networking arrangements for these programmes are highlighted.

Results

*The approach commonly taken in responding to diversifying needs*

The participatory methods used in the reviewed programmes have gradually developed since the 1980s learning from the experiences gained in applying the WISE methodology. The different target groups, the main steps used and special features of these programmes are shown in Table 1.
Table 1. The target groups and the main participatory steps used in the programs reviewed.

<table>
<thead>
<tr>
<th>Target groups</th>
<th>Main participatory steps</th>
<th>Special features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small enterprises</td>
<td>- 4-10 day course consisting of a checklist exercise, sessions on practicable improvements and group work on implementation</td>
<td>- Emphasis on capabilities of small enterprises; focus on local good examples and basic improvement principles</td>
</tr>
<tr>
<td>(WISE)</td>
<td>- 1-2 day workshop including household visits and serial group discussions on practicable improvements and action proposals</td>
<td></td>
</tr>
<tr>
<td>Farmers (WIND)</td>
<td>- Usually 1 day workshop including home visits and group discussions on good examples and action plans</td>
<td>- Emphasis on improving both working and living conditions; learning good examples done at low cost</td>
</tr>
<tr>
<td>Home workers (WISH)</td>
<td>- 3-4 day course consisting of a factory visit, sessions on good examples and basic principles, group work on immediate actions</td>
<td>- Collaboration of contractors and home workers; focus on low-cost improvements</td>
</tr>
<tr>
<td>Trade unions (POSITIVE)</td>
<td></td>
<td>- Highlighting roles of unions; learning local examples; group work on action plans</td>
</tr>
</tbody>
</table>

The reviewed training programs in different countries commonly consist of learning local good practices, group work on locally practicable changes and implementation and follow-up of the improvements proposed. It should be noted that the participatory methods are used in a stepwise manner corresponding adequately to each of these steps. Technical sessions are usually organized to include group work on basic ergonomics and occupational hygiene principles. The serial group work sessions seem useful for helping the participants learn local good practices and propose practicable improvements.

We may confirm that the common strategy of the participatory methods in effectively meeting diversifying needs is to build on local good practices. This strategy can provide practical information about good examples and help people organize effective planning and implementation of necessary improvements.
Achieving locally practicable improvements in multiple areas

All the reviewed programmes focus on low-cost improvements reflecting the local good examples learned. This focus is more effective when the programmes apply low-cost improvements achievable in multiple technical areas. In general, technical areas addressed include materials storage and handling, workstation design, physical environment, welfare facilities and work organization.

It appears therefore important to use participatory methods in the manner to help local people address multiple technical areas. The various training tools reviewed usually incorporate (a) local examples showing good practices in a wide range of different technical areas, (b) action checklists covering these areas, (c) illustrated guides about improvements in all these areas and (d) trainers’ manuals. The relations between the features of participatory methods and those of corresponding action tools are shown in Table 2.

Table 2. Common features of facilitating roles by trainers in the three main stages of participatory programs reviewed.

<table>
<thead>
<tr>
<th>Main stages</th>
<th>Roles of trainers</th>
<th>Common features of the roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building initiative of</td>
<td>Advise local good practice and focus on practicable options</td>
<td>Facilitation relying on the good practice approach</td>
</tr>
<tr>
<td>local people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning of</td>
<td>Assist in planning of simple changes that have real effects</td>
<td>Facilitating planning of changes effective in the local context</td>
</tr>
<tr>
<td>practicable improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation and</td>
<td>Encourage implementation and follow-up through feedback</td>
<td>Supporting stepwise actions through obtaining feedback</td>
</tr>
<tr>
<td>feedback</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The trainers of these programmes help participants address multiple technical areas by means of action-oriented toolkits reflecting the basic principles of ergonomics and occupational hygiene. These toolkits expedite participatory steps for planning effective types of low-cost improvements. The toolkits thus usually incorporate (a) local examples showing good practice in a range of
technical areas, (b) action checklists covering these areas and (c) illustrated guides about how to make low-cost improvements with real impacts.

These toolkits have important common features. They are action-oriented so that their users can look at immediate low-cost actions chosen from local examples. They cover multiple technical areas useful for prioritizing necessary improvements. The reference to basic improvement principles can therefore ensure that the improvements undertaken by the participatory steps have real effects on reducing existing risks. Examples of these principle included efficient materials handling (organized storage, mobile racks and lifters), better workstation design (easy reach, elbow-height work, effective use of fixtures and easy-to-distinguish coding), improved physical environment (good lighting and ventilation, machine guards and isolation of hazard sources), provision of essential welfare facilities (drinking water, sanitary facilities and resting facilities) and work organization (teamwork, rest breaks and job sharing). The facilitation through trainers of the application of these basic principles is generally useful in achieving effective improvements in each local situation.

Support for facilitating the participatory steps

The effects of facilitating the participatory steps have been confirmed by the various reports referred to. These reports note that usually a number of practical improvements are achieved in workplace conditions of the different target groups. The effects of such improvements mainly concern reduced injury risks, improved work environment, reduced physical and muscular loads, strengthened anti-stress measures and better welfare and daily life conditions. The effects of facilitation by trainers are summarized in Table 3.
Table 3. The effects of facilitating participatory steps as reported by network partners.

<table>
<thead>
<tr>
<th>Programs reported</th>
<th>Effects of facilitating participatory steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>WISE projects in the Philippines</td>
<td>- Reduction in muscular loads</td>
</tr>
<tr>
<td></td>
<td>- Higher productivity and improved job satisfaction</td>
</tr>
<tr>
<td>WIND workshops in Vietnam</td>
<td>- Improved farming and transport procedures</td>
</tr>
<tr>
<td></td>
<td>- Better physical environment</td>
</tr>
<tr>
<td>Workshops for home workers</td>
<td>- Reduction in physical and muscular loads</td>
</tr>
<tr>
<td></td>
<td>- Higher productivity and improved job satisfaction</td>
</tr>
<tr>
<td>Various participatory risk</td>
<td>- Improved work environment</td>
</tr>
<tr>
<td>management activities</td>
<td>- Easier work procedures</td>
</tr>
<tr>
<td></td>
<td>- Clear management policies</td>
</tr>
<tr>
<td></td>
<td>- Established PDCA cycles</td>
</tr>
</tbody>
</table>

Generally, advances are notable in the use of local adjusted training tools represented by action checklists and group work methods concentrating on immediate implementation of practical improvements. Their link with basic ergonomics and occupational hygiene principles can assure the risk-reducing effects of these improvements.

In facilitating the participatory steps, it is found useful to (a) learn from good practices locally achieved, (b) focus on low-cost improvements reflecting basic principles of ergonomics and occupational hygiene in multiple technical areas and (c) aim at stepwise progress with the support of local trainers trained in the use of group work tools. Illustrated information on local good practices is useful as it means praise to local people and directly points to benefits.

**Conclusion**

The participatory approaches taken by the reviewed programmes are effectively facilitated when the approaches (a) build on local good practice in an action-oriented matter, (b) focus on the application of basic principles of ergonomics and occupational hygiene including many low-cost improvements and (c) aim at stepwise progress through interactive feedback of local achievements. The use of group work toolkits comprising low-cost action checklists and illustrated guides is found commonly useful. The combined use of good-practice examples and locally adjusted group work
methods can lead to many concrete improvements. Networking of these positive experiences is essential.

References


Abstract:

‘Understanding Occupational Health and Safety Participatory Practice in Small Businesses’
by BR Pandey MSc, IS Laird PhD, SJ Legg Prof, Centre for Ergonomics, Occupational Health and Safety, Department of Management, College of Business, Massey University, Palmerston North, New Zealand

In large businesses, employee participation, as a management initiative providing employees with greater voice in organizational issues, improves employee job performance and firm productivity (Zwick, 2004) and participatory practice - the process of putting joint decisions and actions in workplaces - significantly improves ergonomic design (Rivilis et al., 2008) and new product design decisions (Demirbilek & Demirkan, 2004). In contrast, very little is known about participatory practice in occupational health and safety (OHS) in small businesses but one might expect some of their characteristics - simple organizational structures, close employee-manager relationship and short channel of communication – to be conducive to participatory practice (Itani et al., 2006).

This paper therefore describes a study designed to identify the characteristics of, and to develop an understanding of, OHS participatory practice in small businesses in a multiple case study of independently operated restaurants and cafés, employing 6-19 employee count (EC) in New Zealand, using semi structured interviews and site visits. The findings are interpreted using OHS practice as a social construct within the “local theory of work environment” (Jensen, 2002) and suggest that participatory practice in OHS may be common amongst small businesses.

References:


Understanding Participation in Occupational Health and Safety in Small Businesses: A Preliminary Study

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Abstract
Employee participation, initiatives allowing employees to have greater voice in organizational issues, improves employee job performance and firm productivity (Zwick, 2004). Participatory practice, a broader concept of participation, allowing joint management-employee decisions and actions in workplaces - significantly improves ergonomic design (Rivilis et al., 2008) and new product design decisions (Demirbilek & Demirkan, 2004). These have been evidenced largely in large businesses. Very little is known about participation in occupational health and safety (OHS) practices in small businesses (SBs). However, one might expect some of the characteristics of SBs - simple organizational structures, close employee-manager relationship and short channels of communication – to be conducive to practices of participation (Itani et al., 2006). This paper therefore describes a study designed to develop an initial understanding of participation in OHS practices in SBs in a multiple case study of independently operated restaurants and cafés, employing 6-19 employee count (EC) in New Zealand, using semi structured interviews. Interview responses were analysed qualitatively using thematic analysis. Three emergent themes were evident – initiate participation, entice participation and induce participation. These corresponded to the three emergent themes on getting knowledge on OHS risks in SBs- experiential learning, formal learning and peer learning respectively.

Key words
Participatory practices, OHS knowledge, small enterprises, social actors
Introduction

Participation defined as “the act of sharing in the activities of a group or the condition of sharing in common with others” ("The American Heritage Dictionary of the English Language," 2003) has been part of human society for millennia. As we know it today, the concept originated in the 16th century and may be understood as a means of applying common effort by members of a social group to achieve certain goals (Encyclopaedia Britannica, 2009). Participation by employees in organizational activities in business and organizations, generally entails individuals or groups at a lower level in an organization having a greater voice in one or more areas of organizational issues (Glew, O'Leary-Kelly, Griffin, & Fleet, 1995). This has been conventionally termed “Employee participation (EP)” and has been long experimented, debated and researched. The forms, contents and outcomes are the three dimensions of participation researched and experimented. Direct or indirect employee participation (Cabrera, Ortega, & Cabrera, 2002; Cotton, Vollrath, Froggatt, Lengnick-Hall, & Jennings, 1988), consultative or delegative participation and representative participation (Cotton et al., 1988; Frick & Wren, 2000) which can be informal, enforced, voluntary, contractual or formal participation (Cotton et al., 1988; Dachler & Wilpert, 1978; Seibold & Shea, 2001) are the suggested forms that employee participation.

Employees having no say in the organizational issues or having consulted for information, views and opinions (Cabrera et al., 2002; Geary, 1999; Gill & Krieger, 1999) or having delegated some authority to take some decisions (Cabrera et al., 2002; Geary, 1999; Gill & Krieger, 1999) or management-employees taking joint ownership of decisions (Black & Gregersen, 1997; Seibold & Shea, 2001; Walters & Frick, 2000) have been suggested as the elements of the content of participation. Participation in goal setting or making decision or solving problem or making changes are the other set of content of participation being suggested (Sashkin, 1986).

Irrespective of the suggested forms and the content, participation has been found to impart positive improvement on employee job performance and firm productivity (Zwick, 2004), improved work behaviours and job satisfaction (Hodson, 2002), enhanced economic performance (EPOC, 1997; Gollan, 2005; Gollan, Poutsma, & Veersma, 2006) and delivery of competitive edge (Cabrera et al., 2002). In recent years, employee participation has been broadened in concept and practice as the articulation of diverse interests and perspectives on work related issues by organizational members that extends beyond the traditional rights and responsibilities necessary and sufficient to
accomplish work goals (Stohl & Cheney, 2001). This has been conceptualised as participatory practice and defined as the process of affording the involvement of people in planning and controlling a significant amount of their work activities to influence both processes and outcomes (Wilson, 2001) in order to achieve desirable goals (Black & Gregersen, 1997; Rivilis et al., 2008; Sashkin, 1984; Wilson, 2001). In relation to occupational health and safety (OHS) activities Holmes et al. (1998) concluded that any action on prevention of risk in small businesses resides in the interaction between employers and employees in the understanding of OHS risks and how to prevent them. Jensen (2002) has defined employers and employees as the social actors of work environment and such interactions as OHS participatory practices. Participatory practices in business operations are widely applied in ergonomics (Carrivick, Lee, Yau, & Stevenson, 2005; Kuorinka & Patry, 1995; Pehkonena et al., 2008; Rivilis et al., 2008; Wilson, 2001) and have been found to significantly improve ergonomic design (Rivilis et al., 2008) and new product design decisions (Demirbilek & Demirkan, 2004). However, these findings have largely been observed in large business operations.

Large businesses generally have more formal structures and well defined communication channels than small businesses (SBs). These characteristics, together with a lack of resource constraints, have been associated with easy adoption of the practice of employee participation in workplace issues including occupational health and safety (OHS) in large businesses. In contrast, small businesses are characterised as having a number of positive characteristics including simple organizational structures, closer employee-manager relationships and shorter channels of communications relating to OHS practices (Laird, Olsen, Harris, Legg, & Perry, 2009), and have been shown to be conducive to participatory practices in OHS (Itani et al., 2006). However, it has been argued that lack of resources to access external information to build in-house OHS competence largely hinders employee participation in OHS practices (Walters, 2002). Additionally, differences in the perception of risks and attribution of the causes of risks between employers and employees deter OHS practices and employee participation in OHS practices (Gardner, Cross, Fonteyn, Carolpio, & Shikdar, 1999; Hasle, Kines, & Andersen, 2008). Nevertheless, a recent study, that included managers of small businesses employing less than 50 employees as the study respondents, suggested that effective OHS participatory practices can help small businesses achieve better performance in controlling OHS risks and carrying out preventive activities (Champoux & Brun, 2003).
The management of OHS in small businesses has been under extensive review in recent years (Champoux & Brun, 2003; Eakin, Lamm, & Limborg, 2000; Laird et al., 2009; Legg et al., 2009b; Olsen et al., 2009). However, very little is known about the way small businesses get knowledge on OHS risks and preventive actions; the way employers and employees in SBs develop an understanding of OHS risks; and participation that occurs in transforming knowledge on OHS risks into preventive actions. Therefore, this study focuses on exploring employee-employer participation in developing an understanding of OHS risks and how OHS knowledge is transformed into action in small businesses. More specifically, since the overall goal is to develop an understanding of participation in OHS practices in SBs, two main research questions are addressed. The first is: ‘How does participation in OHS practices in small businesses occur?’ This question is in turn broken down into three specific sub-questions: a) How do employees and employers become knowledgeable about the OHS risks and possible preventive actions in their workplace?, b) How is a common understanding of the OHS risks and possible preventive actions developed?, and c) How is the knowledge and understanding of risks transformed into OHS actions? The second main research question is: ‘Why does participation in OHS practices occur in small businesses?’ This question is in turn broken down into two specific sub-questions: a) What motivates participation in OHS practices? and b) What influences participation in OHS practices?

Methods

Industry sector and business size
Restaurants and cafes combine elements of simultaneous production and service in their operations with customers as active participants in the process. On one hand, meeting the needs and expectations of customers require the combination of a wide range of activities with a high degree of coordination. On the other, often long and ‘unsocial’ hours of work increase fatigue and possible degradation of health condition of people working in this sector. All these add diversity to occupational OHS problems and an increased risk of injuries and accidents. Therefore, given the high propensity of OHS risks but advantages associated with smallness make restaurants and cafes an important and interesting sector to study participation in OHS practices.

For small businesses, the initial three years are crucial years for survival as well as for development of long term strategic plans. In terms of size and structure, as the size of SB grows in terms of employee counts, the business develops from an informal structure to more formal structure.
Arguably a SB tends to become more formal in operation as the number of employees tend to grow more than 12 EC (Massey, 2005).

For the reasons discussed above, the present study was conducted as a pilot investigation in two restaurant and cafes of small business sectors in the central and lower north region of New Zealand. The first was a function centre offering restaurant services and venues for events, which has been in operation for more than twenty five years. It employed 18 staff of which 10 are permanent and 8 are part time. The second was a privately owned restaurant and café which has been in operation for seven years. It employed 10 employees, all part time. The two cases were purposively selected on the following criteria: 1) employing 6-19 employees count (EC), 2) independently owned, 3) in operation for three or more years. These criteria allowed a degree of homogeneity in selecting business cases for the study providing a balance in the breadth and depth of area of enquiry.

Qualitative interviews
Five separate interviews were conducted: one with each of the owners and each of the managers of the two SBs, and one with an employee. All the interviews were semi-structured face-to-face interviews guided by a pre-developed interview schedule. The interview schedule consisted of four areas of enquiry – knowledge in OHS, developing common understanding on OHS risks and preventive actions, participation in transforming knowledge on OHS risks into preventive actions and factors influencing participation in OHS actions. The types of questions included in the interview guide were: what are the hazards and OHS problems in the workplace? How do the social actors get knowledge on such hazards and OHS problems in the workplace? What are the possible causes and effects of these problems? How are these OHS problems identified? What makes incidents sand OHS problems a concern? Who is involved in addressing the OHS problems? What motivates people to get involved in addressing OHS problems? What is usually done to address the OHS problems? And what has been the outcome of such involvement in addressing OHS problems? The interviews lasted from 23 to 33 minutes and were held in the business premises at a time convenient for the respondents. The interviewee’s responses were digitally recorded and subsequently transcribed using an Olympus DSS Transcription Module.
**Data analysis**

The interview responses were subjected to thematic analysis. Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data (Braun & Clarke, 2006). The analysis is a systematic process accomplished in six stages as shown in Table 1.

Table 1: Phases of thematic analysis (Braun & Clarke, 2006)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Familiarizing with data</td>
<td>Transcribe data (if necessary), reading and re-reading the data, noting down initial ideas</td>
</tr>
<tr>
<td>2. Generating initial codes</td>
<td>Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code</td>
</tr>
<tr>
<td>3. Searching for themes</td>
<td>Collating codes into potential themes, gathering all data relevant to each potential themes</td>
</tr>
<tr>
<td>4. Reviewing themes</td>
<td>Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic map of the analysis.</td>
</tr>
<tr>
<td>5. Defining and naming themes</td>
<td>Ongoing analysis to refine the specifics of each theme, and overall story the analysis tells, generating clear definition of the names for each theme.</td>
</tr>
<tr>
<td>6. Producing the report</td>
<td>The final opportunity for analysis, Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back to the analysis to the research question And literature, producing a scholarly report of analysis.</td>
</tr>
</tbody>
</table>

Thus the analysis involved repeated reading of the textual data of all of the interview transcriptions in order to identify “common threads” of texts and comments in the responses. While reading through, comments and responses from each individual interviewee were noted down separately and a list of common threads of comments developed. Taking one research question at a time, all the common threads of comments pertaining to or responding to a specific research question were gathered together as one set. These sets of comments were then reorganized to group together the
similar or connected thread of comments. Categories of comments were developed from the reorganized group of threads of comments. From these categories, relevant “Themes” were developed for the specific research question under examination. A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set (Braun & Clarke, 2006).

**Results**

In relation to how employees and employers acquire knowledge on OHS risks and preventive actions, six emergent themes were found. They included formal learning, documented learning, peer learning, experiential learning, communicative learning and learning through repetition (Table 1).

**Table 1: Emergent themes on knowledge on OHS risks**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major certificates, qualifications, in-premise or off-premise training</td>
<td>Owners: Formal learning</td>
</tr>
<tr>
<td>List of hazards, chemical charts, policies, process, hazard register or accident register</td>
<td>Managers: Documented learning</td>
</tr>
<tr>
<td>Smallness of business allows working closely along side, know what other people are doing, and pick up from each other</td>
<td>Employees: Peer learning</td>
</tr>
<tr>
<td>Working in different work environment, accident investigation and share experiences</td>
<td>Owners: Experiential learning</td>
</tr>
<tr>
<td>Talking to people, notifying hazards</td>
<td>Managers: Communicative learning</td>
</tr>
<tr>
<td>Going through a procedure which is a repetition afterwards</td>
<td>Employees: Learning through repetition</td>
</tr>
</tbody>
</table>

Figure 1 shows the thematic map of the responses from the interviews on getting knowledge on OHS risks.
Figure 1: Thematic map - getting knowledge on OHS risks

- **Formal learning**
  - Apprenticeship
  - Train in house
  - Formal academic training

- **Experiential learning**
  - Hazard register
  - Pre determined lists of hazards
  - Charts/policies/processes

- **Documented learning**
  - Fill out forms
  - Report accidents
  - Monkey see monkey do sort of thing

- **Communicative learning**
  - Talking to people
  - Notify risks and hazards
  - Say what things are hazards

- **Peer learning**
  - Talking to each other
  - Get together of the likes
  - Pick from others
  - You know what the other people are doing and you know what’s going on
  - Monkey see monkey do sort of thing

- **Reteptive learning**
  - We do fire alarm
  - Repetition of work
  - Sign goes up on wet floor and everyone knows it
  - We go through a procedure
  - Peer support during work
  - Communcative learning
  - Tell each other
  - Get together of the likes
  - Pick from others
  - You know what the other people are doing and you know what’s going on
  - We do fire alarm
  - Repetition of work
  - Sign goes up on wet floor and everyone knows it
  - We go through a procedure

- **Experiential learning**
  - Hazard register
  - Pre determined lists of hazards
  - Charts/policies/processes

- **Documented learning**
  - Fill out forms
  - Report accidents
  - Monkey see monkey do sort of thing

- **Communicative learning**
  - Talking to people
  - Notify risks and hazards
  - Say what things are hazards

- **Peer learning**
  - Talking to each other
  - Get together of the likes
  - Pick from others
  - You know what the other people are doing and you know what’s going on
  - Monkey see monkey do sort of thing

- **Reteptive learning**
  - We do fire alarm
  - Repetition of work
  - Sign goes up on wet floor and everyone knows it
  - We go through a procedure
In relation to how employers and employees (the social actors) develop a common understanding of OHS risks and possible preventive actions, six emergent themes were evident. These were: documentation, formal communication, informal communication, communicating suggestions upward, communicating instructions downward and information feed-in (Table 2).

Table 2: Emergent themes on developing common understanding on OHS risks

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
<th>Owners</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident register, hazard register and related forms</td>
<td>Documentation</td>
<td>Documentation</td>
<td>Documentation</td>
<td>Documentation</td>
</tr>
<tr>
<td>Get together of the likes and round table talk once in a while</td>
<td>Formal communication</td>
<td>Formal communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior guys and fleet members talk on a daily basis, just talking to people and changing their mind set</td>
<td>Informal communication</td>
<td>Informal communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open to ideas, suggestions and things brought up,</td>
<td>Communicate suggestions upward</td>
<td>Communicate suggestions upward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tell people, say what is done right and what is done wrong</td>
<td>Instructional communication downward</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information to and from staff – notifying hazards</td>
<td>Information feed in</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2 shows the thematic map of the responses from the interviews on developing common understanding on OHS risks. Figure 3 shows the thematic map of the responses from the interviews on common perception of OHS risks among the social actors.
Figure 2: Thematic map: developing common understanding on OHS risks

Information feed in

- Notify hazards
- They are made to be aware
- Information goes from staff to me
- Information goes from me back to staff
- Get together of the likes
- Meeting and brainstorm
- Round table talk
- Have formal meeting on specific agenda
- Form is filled out if accidents happen
- It explains what happened and how it happened

Documentation

- Accident and hazard register
- Forms and charts
- Contract

Communication upward

- You got to be open to seek suggestions
- Management always open to new ideas
- They do bring up things
- Seek suggestions
- The door is always open if we have anything to discuss

Communication downward

- I work more verbally
- If I see something wrong I say to people
- Instead of giving them a piece of paper I tell them

Informal communication

- Telling people
- Talking to people
- Notifying people
- Making sure hazards are notified
- Changing their mind set
- Ensure all staff knows what they need to do in case of an accident/incident

Formal communication

- You got to be open to seek suggestions
- Management always open to new ideas
- They do bring up things
- Seek suggestions
- The door is always open if we have anything to discuss

Communication upward
Figure 3: Common perception of OHS hazards and risks

- Hazards are regular occurrences
- Part of the job
  - Hazards do present themselves
  - Nature of the job
    - Certain things you have to do
    - Direct part of the business operation
- Type of industry that there are lots of things
  - The need to be safe not only for internals (staff) but for the externals (customers)
  - Hazardous business because you are dealing with people
- OHS integral to the individual job
- OHS integral to the business in general
  - OHS a huge part of hospitality
- The need to be safe not only for internals (staff) but for the externals (customers)
In relation to how participation in transforming knowledge on OHS risks into preventive actions occur, three emergent themes were evident. These were: induce participation, initiate participation and entice participation (Table 3).

**Table 3: Emergent theme on participation in transforming knowledge on OHS risks into preventive action.**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
<th>Owners</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident investigation, training need and peer support</td>
<td>Induce participation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take common sense approach, being mindful and careful</td>
<td>Initiate participation</td>
<td>Initiate participation</td>
<td>Initiate participation</td>
<td></td>
</tr>
<tr>
<td>Have someone in place to get people together as H&amp;S is not a one man band</td>
<td>Entice participation</td>
<td>Entice participation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 shows the thematic map of the responses from the interviews on participation in transforming knowledge on OHS risks into preventive actions.
Figure 4: Thematic map - participation in transforming knowledge in OHS risks into preventive action

- **Initiate participation**
  - Staffs have to be vigilant
  - It’s like common rule
  - It’s like attentiveness
  - You have got to be so careful
  - Bit of a common sense
  - There are lots of things that one should be aware of

- **Induce participation**
  - I put someone with them
  - Make sure you have people in place
  - If everyone gets involved it’s better
  - Expect one of the senior staff to address any hazardous situation
  - Run a very tight schedule
  - H & S not one man band

- **Entice participation**
  - Accident/incident investigation
  - They are responsible for making sure that those things are done properly
  - Peer training
  - Further training
  - Formal induction training
  - Initiate participation
In relation to what motivates participation in OHS practices, six emergent themes were evident. These were: performance, business operation, efficiency, safety, ensuring effectiveness of action and doing the right things (Table 4).

**Table 4: Emergent themes – motivation for participation in OHS practices**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
<th>Owners</th>
<th>Managers</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor job performance and higher risks are associated thus H&amp;S and performance target are tied together</td>
<td>Performance motive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H&amp;S has core relation with business operation as we need make sure that we are not providing shoddy products and bad services based on uncleanness and accident hazards, overall it actually adds growth to business</td>
<td>Business motive</td>
<td>Business motive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hazards and accidents add extra paperwork work and time, extra pressure on other members and add downtime</td>
<td>Efficiency motive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The liability to provide safe workplace for the staff and customers and the want to be in a safe workplace</td>
<td>Safety motive</td>
<td>Safety motive</td>
<td>Safety motive</td>
<td>Safety motive</td>
</tr>
<tr>
<td>They need to be aware that hazards if present are dealt with, prevent recurrence</td>
<td>Safety motive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation of change, know what is required to be done in case of accidents or hazards</td>
<td>Ensure effectiveness of action</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make the place run smoothly</td>
<td>Do the right things</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 5 shows thematic map of the responses form the interviews on motivation for participation in OHS practices.

In relation to what influences participation in OHS practices, two emergent themes were evident. These were: Staff turn over and resource consumption (Table 5).
Table 5: Emergent themes - influences on participation on OHS practices

<table>
<thead>
<tr>
<th>Categories</th>
<th>Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>We don’t have lots of moving of the staff so they know what’s expected of</td>
<td>Staff turn over</td>
</tr>
<tr>
<td>them</td>
<td></td>
</tr>
<tr>
<td>Filling up forms consumes time</td>
<td>Resource consumption</td>
</tr>
<tr>
<td>Rules and regulations add paper work</td>
<td></td>
</tr>
</tbody>
</table>
Figure 5: Thematic map - motivation for participation

- **Performance motive**
  - Poor job performance is associated with higher risks
  - H & S is tied to performance target

- **Efficiency motive**
  - We can make rules and regulations of anything but too many pieces of paper
  - I could have forms but that would be spending all my time ticking boxes
  - Injuries are one of downtime
  - Extra pressure on other members of the staff

- **Safety motive**
  - It is hazardous business because you are dealing with people not only your staff but the customers
  - You are liable for them
  - Management need to provide a safe venue for the customers
  - Management need to provide a safe workplace
  - Staffs need to be aware that hazards do present themselves and will be dealt with

- **Business motive**
  - Customer safety
  - H & S is part of certification
  - Has core relation with business operation
  - You are in a business
  - Overall it actually makes your business grow
  - H & S is an important issue for business profit

- **Effectiveness of action**
  - Ensure that all staffs know what they need to do in case of accident or incident
  - Implementation of change required due to accident happened or hazard being notified

- **Commonalities**
  - Customer safety
  - H & S is an important issue for business profit
  - Do the right things
  - Make the place run smoothly

- **Customer safety**
  - Customer safety
  - H & S is part of certification
  - Has core relation with business operation

- **Personal safety**
  - You are in a business
  - H & S is an important issue for business profit

- **Customer job performance**
  - Poor job performance is associated with higher risks
  - H & S is tied to performance target

- **H & S related to safety**
  - Extra pressure on other members of the staff
  - Injuries are one of downtime
  - We can make rules and regulations of anything but too many pieces of paper

- **H & S is tied to**
  - Performance motive
  - Business motive
  - Effectiveness of action

- **H & S**
  - H & S is an important issue for business profit
  - Do the right things
  - Make the place run smoothly

- **H & S is an important issue for business profit**
  - H & S is tied to performance target
  - Business motive

- **H & S**
  - H & S is an important issue for business profit
  - Do the right things
  - Make the place run smoothly
Discussion

Knowledge of OHS risks and preventive actions

The study found peer learning and experiential learning to be the commonly accepted forms of getting knowledge on OHS risks and preventive actions among social actors. Closely related to experiential learning is learning through repetition which the employees think provides ample opportunity for them to become knowledgeable of the risks and preventive actions in the work environment due to the repetitive nature of the job they perform.

Peer learning is facilitated by smallness of the work environment that enables people “to know what the other people are doing and what’s going on and that all those things had been done..”. Peer support and “picking up from each other” form important elements of peer learning. As put forth by one of the owners “.. each one of the member staff bring their own special characteristics with them and overall it actually makes your business grow because you take those things on and all you doing is you stepping up”.

Experiential learning occurs when the social actors become knowledgeable of occupational health and safety risks and preventive actions in their workplaces either through direct working exposure with risks and hazards or through sharing the experience of hazards and risks. As put forth by an employee “ everyone seems to have sound knowledge of health and safety in workplace like this because all of us have done it before and you know somewhere else usually”.

The study also revealed that for owners and managers, documents on OHS risks and hazards and communication with employees are important contributors to getting knowledge on OHS risks and preventive actions. As exemplified by one of the owners “doing verbally and something like that, it goes in a lot quicker. It’s a funny way of teaching but it works”. Getting knowledge through communicative learning goes two ways as said by one of the managers “just notifying the right people and talking to them about making sure that hazards are notified”.

Developing common understanding on OHS risks and preventive actions

The study revealed that documentation such as accident register and hazard register take an important role in developing understanding of OHS risks and preventive actions for the social actors. In addition, for owners and managers, formal communication such as “get together of the likes”, as put forth by one of the managers, plays an important role in developing such
understanding among them. However, documentation, communication of suggestions upward and information feed-in are vital for developing a common understanding on OHS risks and preventive actions among the social actors. Interestingly, both the information feed-in and communication of suggestions is found to be occurring at a very informal level. As illustrated by an employee “the door is always open if we have anything to discuss - anything that makes the place run smoothly”, which substantiated by what one of the managers said; “I am always open for opinions and feedback from and You got to be open to seek suggestions” and “instead of giving them a piece of paper, I tell them”.

Additionally, the study revealed that the social actors have two commonly accepted understanding of OHS risks (Figure 3). The first is that OHS risks are integral to the individual jobs as said by one of the employees that “.. it is the part and parcel of the job” and in the words of the manager “hazards are regular occurrences … just the nature of the beast and how well you manage it’. The second common understanding is that OHS risks are integral to the business in general. This has been reinforced through the opinion of an employee that “.. OHS risks are direct part of the business operation as you are dealing with people..” and in the words of one of the managers “there is the need to be safe not only to the internals (staff) but also to the externals (the customers)”.

**Participation in transforming OHS knowledge into preventive action**

The study revealed that participation in transforming OHS knowledge into preventive actions in these small businesses takes three forms - initiate participation, entice participation and induce participation. Initiate participation pertains to participation in OHS actions out of “common knowledge”, “common sense” or “employees being conscious of hazards and risks”. As exemplified by one of the managers “we all are involved and it is important the all the staff take a common sense approach”. Initiate participation is found to occur informally as put forth by one of the owners “staff having understood the work procedure” due to the “repetitive nature of the work, it becomes a second nature”.

Initiating participation is reinforced by “Entice Participation” and “Induce Participation”. Entice participation pertains to bringing about participation in OHS actions through increased knowledge and awareness. This is reflected by the opinion of one of the managers “to train staff to ensure that they know what good responsible practice is”. ‘Induce participation’ is related to
prompting participation in OHS actions through peer induction. This is illustrated by a statement made by one of the owners “I put someone with them” or a statement made by a manager “Make sure you have people in place” as it is “monkey see monkey do sort of thing” or by an employee saying “we run a very tight schedule”.

Comparing the categories and emergent themes on “getting knowledge on OHS” and “participation in transforming OHS knowledge into preventive actions” shows that ‘entice participation’ is closely related to formal learning which involves getting knowledge from training and apprenticeship. ‘Induce participation’ is found to be closely related to peer learning. This is mainly because peer learning emerges from “picking up from each other” or “peer support during work” which resemble “I put someone with them” or “health and safety not one man band” from where induce participation is emerging. Additionally, though there is no clear resemblance of categories from where experiential learning and initiate participation are emerging, the two are found to be related to some extent. People getting common knowledgeable of OHS risks and preventive actions due to the repetitive nature of the work they perform which according to one of the owners becomes a second nature which possibly lead to increase in initiate participation is a reason for the possible relation between experiential learning and initiate participation.

**Influencers of Participation in transforming OHS knowledge into preventive action**

**Motivations for participation**

The study found personal safety to be the primary motivation behind participation in OHS actions by the social actors. Owners and managers think that safety of people including staff and customers in the work environment is their liability as management need to provide safe workplace for the staff and a safe venue for the customers. Participation allows owners and managers to be assured that their liability of providing safe environment for internals and externals is met. Participation allows employees to be aware that they are working in a safe work environment and, as put by one of the managers, “to be aware that hazards do present themselves and will be dealt with”.

The study revealed that, closely related to personal safety is, the business motivation that motivates participation in OHS practices. As said by one of the managers “H & S is an important issue for business profit” or in the words of one of the owners “overall it actually makes your business grow”. The business motive for participation is augmented by the
efficiency motive and performance motive. In the words of one of the owners “injuries are one of downtimes” and “add extra pressure on other members of the staff” and participation allows avoiding such inefficacies. This is further reinforced by the statement by one of the owners that poor job performance is associated with higher risks”.

Additionally, for employees an important motivation is to be able do the right things so that “the place is run smoothly”. The study also found that managers consider participation as a means for effective implementation of changes in workplace – in the words of one of the managers, by allowing “the staff to know what is needed to be done when OHS risks and hazards become apparent”.

**Influences on participation in OHS practice**

The study revealed that from the owners perspective staff turn-over has a big influence on participation on OHS practices. People staying longer in the same place enables more participation in OHS practice as they are more knowledgeable of the risks and hazards present and how they are dealt with. Avoidance of extra paper-work that require additional resources is another factor that is influencing participation. This is illustrated by one of the owners saying that “I could have forms but that would be spending all my time ticking boxes” or “we can make rules and regulations of anything but too many pieces of paper”.

**Implications for future studies**

This preliminary study has identified a number of implications for future studies. Firstly, as reported in earlier studies (Lamm, 2002; Legg et al., 2009), the present study found access to, and engagement of small businesses difficult. Secondly, the study methodology required the respondents to spend a considerable amount of time with the researcher. This posed an additional hindrance, especially for gaining access to the employees through approval of the owner/ manger. This was due to the fact that employees in the café/restaurant sector most commonly have limited hours of work in the premises have limited time to spare for research based interviews during work hours and are difficult to be contact out of business hours. Thirdly, any future study in the area of participation and OHS in SBs should understand and be aware of the intrinsic relationship between knowledge, participation and actions in OHS.
Conclusion

Based on the results of this preliminary study, it may be concluded that participation in OSH practices in SBs is closely governed by how knowledge of OHS risks is acquired by the social actors and how common understandings of OHS risks are developed. The most common relationship to develop common understanding of the risks and hazards appears to be acquiring knowledge of OHS risks informally through experience-based learning and shared through informal communication. This in turn seems to be associated with participation in OHS practices being initiated out of common knowledge at individual employee level.

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WS3.1-3 Abstract:

‘Work, Health and Organization in Garbage Collectors of Fortaleza, Brazil’
by Regina Heloisa Maciel, Ph.D., Professor; Tereza Glaucria R Matos, Ph.D., Professor; Maria Eulaidia A Vieira, P.G. student; Marselle Fontenelle, M.Sc., Assistant, Universidade do Fortaleza, Fortaleza, Brazil
João Bosco F Santos, Ph.D., Professor, Universidade Estadual do Ceará, Fortaleza, Brazil

The complexity and emergency of finding solutions for the administration of solid residues generated by society have been receiving attention of authorities and researchers. In developing countries, the collection and separation of waste has been accomplished by workers belonging to the lower classes of society. The purpose of this research is to investigate how garbage collectors are organized and the main aspects of their daily work as well as the health problems identified. In Fortaleza, Ceará, Brazil, around 8 to 10 thousand people work with garbage collection in the streets.

The purpose of this research is to investigate how garbage collectors are organized and the main aspects of their daily work as well as the health problems identified. In Fortaleza, Ceará, Brazil, around 8 to 10 thousand people work with garbage collection in the streets.

The method consisted of observations, interviews, focal groups and ethnography. Garbage collectors are linked to small associations of 50 to 100 collectors or to private deposits. The workers are not formally employed and the associations are not legally recognized. Both, associations and deposits, provide the carts used by the workers. The cart is the main link between the worker and the association or deposit: its use determines where the materials collected have to be sold at the end of the work journey. When the worker returns, the materials are separated, weighted and paid.

Within certain limitations, workers decide when, where and how to accomplish their tasks. In relation to health, workers report back pain, traffic accidents, infections and injuries, due to the manipulation of garbage.

One of the solutions found to deal with the problem is the recycling of part of the residues that can be reprocessed by industries, decreasing the environmental impact of garbage in large cities. This solution is seen as important for protecting the environment, but also as a means of creating occupation and income.'
Work, Health and Organization of Waste Picking in Fortaleza, Brazil

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Abstract
It is estimated that 8 to 10 thousand people work with garbage picking in Fortaleza. Street waste pickers are organized in 16 associations and a larger number work for small garbage deposits. How the work is accomplished in these two types of organizations, the main aspects of the work and health problems were studied by interviewing 30 collectors (5 focus groups), one deposit owner and two association directors. The data showed that waste picking is a precarious informal job, both in associations and deposits. Associations, although providing recognition and solidarity to some extent, do not succeed in transform working conditions in the direction of a more decent and less precarious job and are not perceived by workers as a means of social inclusion and participation. In relation to their health problems, workers report back pain, traffic accidents, infections and injuries.

Key words
Waste pickers, health, work conditions, associative work.

Introduction
Collection and recycling of solid waste residues by specialized industrial plants have being considered a possible answer to the accumulation of garbage produced in urban centers due to population and consume growth. Recycling of solid materials consists in the reprocessing of
plastic, aluminum, paper and other materials by specialized industrial plants or in the use of these materials directly in the production of new consumer goods by the industry. Reprocessing materials can lead to economic, environmental and social advantages. Economic advantages concern to the possibility of increasing profits due to the use of less expensive raw materials. Environmental advantages of reprocessing are the better management of natural resources and the reduction of environmental pollution caused by the accumulation of garbage in streets and dump areas. Social issues are also involved in recycling due to the creation of new occupations related to collection, picking and separation of solid waste residues, generally done by poor people in the large urban centers of the third world. In other words there is in these countries a tendency to formalize jobs such as the picking and separation of recycling materials from garbage in the streets and dump areas as a way to solve the social issue of finding occupation to people excluded from the formal market. This system, based in economical, environmental and social dimensions, is being applied with more or less efficiency by different countries (Dall’Angol & Fernandes, 2007; Machado et al., 2006; Buenrostro & Bocco, 2003; Moreno-Sánchez & Maldonado, 2006; Mota, 2005).

Bosi (2008) describes how waste pickers appeared in Brazil’s social scenario, showing that this kind of occupation is not new. According to the author, waste pickers are present in the national literature since 1947, as is also pointed by Mota (2005). But waste picking for recycling have become a viable economic process only after jobs in industries turned scarce. This means that the increase in waste picking was only possible because there was a large group of people in need of any occupation in order to survive and ready to live on very low earnings, leading to profits for the recycling industries. In 2002, waste picking was officially recognized by the Brazilian Government as an informal job, described in the National Catalogue of Jobs (Catálogo Brasileiro de Ocupações) (Brasil, 2002). In general, waste pickers have low or no formal education at all, no qualification and are ready to submit to a very low income. The growth in the number of waste pickers in Brazil, according to Bosi (2008), was intense in the last decades: in 1999, there were 300,000 workers involved in waste picking, whereas in 2005, the number of workers in this occupation was more than one million, which represents an increase of about 240%. According to the IBGE - Brazilian Institute of Geography and Statistics - (IBGE, 2008), these workers can be found in all Brazilian cities and the 2000 population census detected 24,500 waste pickers, of which, 22% were under 14 years old (IBGE, 2008). It is estimated that
only in Fortaleza, capital of Ceará, there are between 8 to 10 thousand people working with garbage picking (IMPARH, 2006).

Waste pickers can be associated or independent workers. In Fortaleza there are about 16 waste pickers associations. The association operates as a workers’ cooperative, although none of the 16 associations is formalized as such, once in Brazil formalization of a cooperative is a process that demands bureaucratic skills and involves costs that they cannot afford. However, the municipality and local government recognize their existence and provide help and assistance, such as the donation of areas for storage of residues and administrative offices; a truck for the transport of separated materials to industries; and pushcarts, essential for an efficient waste picking task. Some associations receive help and support from national and international Non Governmental Organizations (NGO) and from sectors of the Catholic Church. The number of workers in each association varies. There are associations with only 5 waste pickers and others with 50 or more. Lima (2006) refers to this kind of organizations as “associations to generate employment and labor income” and calls attention to their precarious conditions of management and functioning. She points out that in Brazil from the 1990s on, the creation of workers’ cooperatives and associations was motivated by changes in the capitalist system and has received the blessing of governments. In this context waste pickers’ associations were founded all over the country, supplying work and income to the poor population without other occupational alternatives. These organizations face various difficulties and challenges due to the lack of knowledge in dealing with market issues and poor working conditions. To handle the problem of selling the product of their work, waste pickers' associations of Fortaleza constituted an associations’ net. The net allows associations to share the few resources available, such as truck and pieces of land borrowed from the municipality, and to sell separated materials directly to recycling plants. The net is managed by associations’ representatives elected by the workers. However, net management is only possible with the support of a NGO. Aquino et al (2009) studying a similar network of the southern states of Brazil, showed that the net can represent an economic advantage of about 32% in the normal income of waste pickers.

One important question related to this kind of association is if the model can be a true social-political solution in terms of being an alternative to the salary system and if it promotes a sense of autonomy and social inclusion for workers. Discussing this issue, Lima (2006) points out that workers’ cooperatives and associations are seen by their members, in general, as a simple occupation and not as a mean to reach social or
political participation and that the model can be positive only if it reflects some effective gains in autonomy, either in the formalization of the activities, or in self-management directives, even when they are not effective in economic terms, and when they can contribute to the construction of occupational alternatives. However, the author concludes that at the moment, flexible working activities, as can be found in the associations’ model, only means precarious work. Besnard (1980), on the other hand, indorse the associative model saying that it has the potential to complement an individual’s cultural and participative needs. Associations are seen as essential agents for qualification and participation of workers in the direction of social development and as bases of the social structure, promoting relationships among individuals. Besides that, when managed in a co-administrative and self-administrative way, they shape one’s participation and autonomy.

Following the same idea, some authors believe that waste pickers’ associations represent a viable model to generate employment and income and, at the same time, a solution to decrease the quantity of solid wastes produced in large urban centers. Although the difficulties of management and the precarious conditions of these associations are recognized, they believe that the model should be supported by governments, once waste pickers’ associations can solve at least a part of the unemployment problem (Bartoli, 2009; Rosa et al, 2006; Velloso, 2005; Andrade & Guerreiro, 2001; Medina, 1997).

Martins (2005) analyses three waste pickers’ associations of Rio Grande do Sul and concludes that the associations are a good example of the beneficial effects of interactions between governmental sectors, NGO’s and Catholic Church and that they allow workers to have a sense of participation and autonomy.

However, the number of workers in the associations or linked to the net of associations in Fortaleza is very small compared with the large number of independent workers in the area. Independent waste pickers work for private owned garbage deposits. These are small organizations managed by a profiteer, deposit owner, called, in Fortaleza, “deposeiro”. The organization provides the pushcart exclusively for the activities of picking recycling materials from the streets and garbage cans and bags in residential areas, buys the collected materials and resells them to recycling plants. In exchange for the pushcart, the waste picker has to sell the materials only to the deposit from where the pushcart was taken, without the possibility of negotiating prices. Deposits vary in size and its economic power is measured by the number of
pushcarts available to workers. There are deposits with few carts, about 3 or 4, and others with 100 or more.

The purpose of this study is to verify if waste pickers’ associations can be taken as an organizational model that promotes an effective autonomy and participation of workers and if this model is beneficial in terms of improving work and living conditions of its members compared to the “job” of independent workers provided by deposits in Fortaleza, considering its particular cultural background.

A second objective is to investigate health conditions of waste pickers. It is known that work with garbage can lead to injuries and occupational diseases (Santos Filho et al, 2003). Medeiros & Macedo (2007) analyzing Brasilia’s waste pickers concluded that the work means a risk for physical health and prejudices psychological well being, once workers are stigmatized and discriminated by the population for the kind of work they do. Studies investigating garbage waste pickers of dump areas or landfills and streets waste pickers in Brazil indicate that these workers do not report work related diseases with a higher frequency than the normal population, although they report work accidents such as cuts, falls and traffic accidents (Porto et al, 2004). The situation seems to be the same in other countries. An et al (1999) in a study with solid waste collectors of Florida found that these workers were subjected to accident risks and injuries but that occupational diseases were, probably, not notified. Torun et al (2006) and Wilson et al (2006) describe the main health problems related to waste picking. They list, among others, musculoskeletal problems, cuts, dermatitis, diarrheas and infections as being frequent in these workers. Silva et al (2006) found a prevalence 44.7% higher of minor mental disorders among waste pickers of Pelotas, Brazil, when compared to a control group.

**Approach and methods**

A qualitative method was chosen in order to answer the questions posed by the objectives. The choice of a qualitative method concerns the idea of exploring the psychosocial dimensions of the work, comparing associations and deposits and describing their main differences in an exploratory way.

Thirty waste pickers, associated and independent, participated in the study. They were distributed in 5 focus groups of 4 to 6 workers each and were interviewed collectively. The decision to use a collective interview technique was due, in part, to difficulties of observing and talking to workers during their daily journey in the streets and to the precarious conditions
encountered in the associations and deposits. Collective interviews took place at the university and the groups were organized by the associations and deposits participating in the study. Transport to workers was provided by researchers and the workers received R$ 10.00 (US$ 5.00) for their participation in the focus group and also a lunch was served after the interview. Of the five groups, two were formed by associated workers and two by independent workers; one was a mixture of associated and independent workers. One deposit owner and two directors of associations were also individually interviewed. The interviews with the focus groups lasted one and a half hours in average and only one encounter was done with each group. Following the technique of Collective Work Analyses only one question was posed to the groups: “Please, report a day’s work”, and as the talk proceeded and new issues were brought to the conversation, the researchers tried to question them about health problems, their work organization and psychosocial factors. Initially, the workers were asked to state their names, age and how long they were working as waste pickers. All interviews were recorded and transcript. The analyses was done using all materials collected, focusing in the unities of meaning among the various themes raised in the discourses. The intention was to identify the differences in the activities and psychosocial dimensions of associated and independent workers, as well as reports of accidents and occupational diseases that could be linked to the work. Transcriptions of the interviews were analyzed with the aid of a computer program for qualitative research and the final results were reached after various readings and discussions by the research team. As already mentioned, participants have very low or no formal education, with some rare exceptions, some could not sign their names. The great majority do not have any professional qualification and those who have being employed before, use to perform activities such as construction work, maid and other manual work. The participants mentioned that they use to reside in the periphery of Fortaleza, without housing infrastructure and considered areas of high social risk. Some participants referred that they do not have a fix address and use to sleep in the streets and in rooms rented by one night. Table 1 shows participants age and gender and the time in the job for some of them.
Table 1: Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Focus Group</th>
<th>Age (years)</th>
<th>Type of organization</th>
<th>Sex</th>
<th>Time on the job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luiz</td>
<td>FG1</td>
<td>60</td>
<td>Independent</td>
<td>Male</td>
<td>12 years</td>
</tr>
<tr>
<td>Francisco José</td>
<td>FG1</td>
<td>31</td>
<td>Independent</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Washington</td>
<td>FG1</td>
<td>47</td>
<td>Independent</td>
<td>Male</td>
<td>20 years</td>
</tr>
<tr>
<td>Ana</td>
<td>FG1</td>
<td>40</td>
<td>Independent</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Agenor</td>
<td>FG1</td>
<td>65</td>
<td>Independent</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>César</td>
<td>FG2</td>
<td>33</td>
<td>Associated</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Luiz Fimino</td>
<td>FG1</td>
<td>59</td>
<td>Independent</td>
<td>Male</td>
<td>15 years</td>
</tr>
<tr>
<td>Francisco</td>
<td>FG2</td>
<td>30</td>
<td>Associated</td>
<td>Male</td>
<td>2 years</td>
</tr>
<tr>
<td>Geruza</td>
<td>FG2</td>
<td>47</td>
<td>Associated</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Diassis</td>
<td>FG2</td>
<td>42</td>
<td>Associated</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>José</td>
<td>FG2</td>
<td>63</td>
<td>Associated</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Francisco Mendes</td>
<td>FG2</td>
<td>60</td>
<td>Associated</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Gildo</td>
<td>FG2</td>
<td>66</td>
<td>Associated</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Carlos</td>
<td>FG3</td>
<td>38</td>
<td>Independent</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Marcos</td>
<td>FG3</td>
<td>25</td>
<td>Independent</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Jaqueline</td>
<td>FG3</td>
<td>41</td>
<td>Independent</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Loira</td>
<td>FG3</td>
<td>38</td>
<td>Independent</td>
<td>Female</td>
<td>-</td>
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<tr>
<td>Paulista</td>
<td>FG3</td>
<td>48</td>
<td>Independent</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Acácio</td>
<td>FG3</td>
<td>59</td>
<td>Independent</td>
<td>Male</td>
<td>23 years</td>
</tr>
<tr>
<td>Maninho</td>
<td>FG4</td>
<td>26</td>
<td>Independent</td>
<td>Male</td>
<td>-</td>
</tr>
<tr>
<td>Graça</td>
<td>FG4</td>
<td>45</td>
<td>Associated</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Fátima</td>
<td>FG4</td>
<td>47</td>
<td>Associated</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Antonia</td>
<td>FG4</td>
<td>35</td>
<td>Independent</td>
<td>Female</td>
<td>8 years</td>
</tr>
<tr>
<td>Bill</td>
<td>FG4</td>
<td>35</td>
<td>Independent</td>
<td>Male</td>
<td>8 years</td>
</tr>
<tr>
<td>Maria</td>
<td>FG4</td>
<td>45</td>
<td>Associated</td>
<td>Female</td>
<td>-</td>
</tr>
<tr>
<td>Veronica</td>
<td>FG5</td>
<td>38</td>
<td>Associated</td>
<td>Female</td>
<td>1 year</td>
</tr>
<tr>
<td>Claudia</td>
<td>FG5</td>
<td>43</td>
<td>Associated</td>
<td>Female</td>
<td>12 years</td>
</tr>
<tr>
<td>Moisés</td>
<td>FG5</td>
<td>44</td>
<td>Associated</td>
<td>Male</td>
<td>12 years</td>
</tr>
<tr>
<td>Antonio</td>
<td>FG5</td>
<td>23</td>
<td>Associated</td>
<td>Male</td>
<td>6 months</td>
</tr>
<tr>
<td>Geisa</td>
<td>FG5</td>
<td>25</td>
<td>Associated</td>
<td>Female</td>
<td>5 months</td>
</tr>
</tbody>
</table>

Results

The data were analyzed using a method of discourse analyses. Discourses were separated by categories and subcategories of meaning. In this paper only some of the categories encountered are described. The results focus in three main themes: description of activities, differences and similarities in the work organization and psychosocial dimensions between deposits and associations and health issues. The first category describes the main activities performed by waste pickers, which constitutes the waste pickers job; the second points out the main
differences related to be an independent or associated worker and the third focuses health problems, as perceived by workers.

**Work Activities**

Initially it is necessary to mention that in Fortaleza domestic garbage collection is organized and done by authorized firms, but there is no law or rule related to garbage separation and, therefore, households do not have to separate domestic waste in recycling components. Waste pickers’ work consists of catching a pushcart in the association or deposit or, sometimes, in the own residence and to walk for a specific area of the city, collecting possible recycling materials of the streets and garbage cans of residences and condominiums. But there are still pickers that just work with bags, which turn the work less efficient and the earnings smaller. The travel course is free but each worker has it is own preferable path. There is a competition among workers to pick the garbage of the richest neighborhoods, once in these collected materials are more valuable and in larger quantities. Waste pickers choose the materials depending on the market price of each kind of recyclable, which varies daily, and also on his preferences which is dictated, in part, by the weight and volume that can be accommodated in the pushcart.

If, during the journey, the worker feels the need to eat, drink, rest or other necessities, he searches for a place, in general, isolated, or some commercial establishment. Sometimes, they eat food encountered in the garbage.

When the pushcart is full, the worker returns to the deposit or association where he borrowed the pushcart. There, he picks up recipients to separate and weight the materials collected. The weighing is done by the deposit owner or another waste picker. Depending on the time of arrival, the worker has to wait in order to have the materials weighting. The collected materials and the weight are recorded and the waste picker is paid accordingly.

The worker can, sometimes, keep the pushcart full of waste materials in his home and take the cart to the deposit or association in the next day, as well as choose the time of day to work (some workers prefer to work during the day, some at night). However, depending on the number of pushcarts of the association or deposit, if the waste picker arrives late there are no more pushcarts to borrow: “If I arrive late, there is no pushcart and I can’t work that day”.

When the pushcart brakes during the journey and the worker cannot come back to the deposit or association, he has to communicate the fact in order to have the pushcart repaired or to have the collected material rescued. If the pushcart is robbed, which happens frequently, the deposit or
association has to be communicated as soon as possible. In these cases, there is always a suspicion that the worker might have sold the instrument. If the worker proves that the cart has really being stolen, he doesn’t have to pay back the corresponding amount, if not, he has to pay the value working for the association or deposit. Waste pickers cannot use the pushcart for small transports to third persons. If this happens, the worker is punished, either by being expelled of the organization or by violence.

A relevant aspect of the work is the ability to arrange materials within the pushcart. A “good” waste picker is the worker that knows which materials have the best prices and how to arrange materials in the cart to secure a better payment in the end of the day. Some described this activity: “one has to know how to divide the load between the tires and the lateral of the cart; if you put the load only in the back, you will not be able to lift it, if you put the load only in the front you will not be able to push it, because the cart can be very heavy”.

**Differences and similarities between deposits and associations**

Work activities accomplished by waste pickers are essentially the same for independent or associated workers. However, there are differences in the way the work and affiliation are done in the two types of organizations, influencing working conditions and psychosocial dimensions of independent and associated professionals.

Associations have a list of waste pickers and only workers that belong to the association can borrow one of the association’s pushcart. In the deposits there is also a list, once the owner tries to avoid robbery of his pushcarts and other kinds of problems with the worker. In order to do that, deposit owners make an investigation of the worker and, in general, only workers that have a fix address or are known by other workers of the same deposit are allowed to borrow a cart. Nevertheless, it is easier to find a “job” in the deposits than it is to be an associated worker.

When the pushcart is borrowed from a deposit, the waste picker can sell the materials collected only to that deposit. The same is valid for the associations.

The pushcart is simultaneously the work instrument and the work contract. It is the only link that bonds the worker with the association or deposit. According to the interviewed waste pickers, to own a pushcart is a mean of free oneself of what they consider to be their only limitation in terms of autonomy: to be forced to sell materials to one specific organization, the owner of the pushcart, without the possibility of negotiating prices.
Deposits and associations are responsible for the maintenance of the pushcarts. In the associations, this work is done by the workers and, due to lack of money, pushcarts in general are always broken or in bad conditions. One of the associations visited had only five pushcarts, donated by the municipality, all of them in a bad conservation state. Some waste pickers take good care of their cart, changing tires and other parts, and feel as if the cart belongs to them. In some deposits and associations this is respected, so that the worker is the only user of that particular pushcart.

Waste pickers narrate that they are in this job because they have no choice, no other work alternative; so that they have to submit themselves to this kind of occupation in order to survive. In other words, waste pickers belong to that population group that find themselves outside the work market, probably due to the global re-structuring production process and work organization, thoroughly treated in the literature of the last decades and that throw a large number of workers into precarious working and living conditions, incapable of finding a place in the “new industry” of the new capitalist era (see, for example, Antunes and Pochmann, 2008).

Maybe as a mechanism of defense, waste pickers believe they “work for themselves”. They narrate and proudly announce that they can choose the day they want to work, the hour, the journey hours, where to go and what to pick, as shown in the following discussion that took place in two focus groups:

‘To me, work for myself is to be independent of others. We are our own “boss”. We work for ourselves because we do not have a timetable to follow, we can arrive anytime. There is no boss to tell when one has to work and when one has to return or begin the work. Nobody complains about my work, because there is no boss. You do not have to notify anybody when you are going to arrive or live’ (Workers FG4: Deposit)

‘I don’t want to leave the “pushcart” job because in this job I do not have to bend to anyone, to humiliate myself in front of anybody’ (Worker FG2: Association)

The idea of being an “autonomous” worker among waste pickers was referred to as “proletarian autonomy” or “false autonomy” by Medeiros & Macedo (2007), once workers has no other choice of occupation in face of the lack of formal jobs and their daily work, without any time limitation, is, in fact, determined by the need to survive. Some waste pickers narrate that their daily earnings are only enough to feed themselves in the next day. The average workers’ daily
earnings in Fortaleza is around R$ 10.00 (US$ 5.00). But the earnings vary according to the materials encountered and their prices. Associated workers, in general, receive more for the same amount of materials, once associations sell directly to the industries and are not subjected to the prices imposed by deposit owners.

In the associations, the process of selling materials to the recycling plants is coordinated by the workers. As the plants do not receive materials in small quantities and do not provide transport, the process requires a place to stock materials till there is enough quantity and means to transport it. In general, deposit owners have a truck or a car to deliver materials to the plants, but the associations of Fortaleza have only one shared truck that pick up materials from all associations. The problem for the associations is that they cannot sell products with the same efficiency as deposits and they have no capital to pay workers as soon as the materials are weighted. In some cases, workers from associations sell the materials collected to one deposit, even when they use the association pushcarts, in order to receive the necessary daily payment.

In some associations, workers receive the payment only in the end of the week, when materials are sold to the plants. This requires some sort of budget management which is not possible for a worker that depends of his daily payment in order to eat the next day.

Another difference between deposits and associations relates to the process of weighing. In the associations this process is also coordinated and supervised by the workers. In the deposits, the owner is responsible for the scale maintenance and workers are always suspicious of the reliability of the results and say that they cannot complain or raise doubts about the final result, which, in the end, reverts directly in their payments.

The number of women is somewhat smaller in this kind of job once the work is normally described as very hard. Nevertheless, associations are generally run by women and they appear proportionally in a larger number in the associations when compared to deposits. One of the associations that participated in the study was composed by 5 women, all linked to the local church. As mentioned, men, in general, used to work in construction or had jobs by the transport branch before waste picking, while women used to work as maids or had other domestic jobs. Some women narrate that they also work as maids parallel to picking waste.

Authoritarianism and violence are very common among associations and deposits as narrated by the workers, although their degree and content vary. Independent workers narrated various cases of violence involving deposit owners or competition among waste pickers. Deposit owners, sometimes, persecute workers and resort to violence if they are suspicious that the
worker sold the pushcart, that he is selling materials to another deposit or using the cart to make other kind of transports. Waste pickers’ rivalry can also lead to violent behavior as when one worker “invades” the path of another.

In the associations, violence is linked, in general, to power disputes. Although associations should be run as workers’ cooperatives, directors use to dismiss workers and take decisions without consulting others. As mentioned before, waste pickers do not have formal education and the large majority does not have reading or writing abilities. In this context a person with some of these capacities can easily dominate the others and impose his will over them. Among associated workers is common the suspicion that the leaders are using the money for their own needs. These suspicions are extended to the net of associations. In one of the groups (FG5), the association’s director referred to the net manager as someone who does not show the main characteristic of a waste picker: “she is not a waste picker cause someone who has a car and the children are in a private school cannot be a true waste picker”. The lack of formal education leads to feelings of helplessness by dealing with a formal system that requires some kind of formal abilities, such as arithmetic skills and understanding of official documents.

Another aspect that shows a considerable difference between independent and associated workers has to do with illicit activities, which appear as an option for independent workers but are not frequent among associated waste pickers. According to Medina (1997), waste pickers are frequently associated with dirt and diseases and recognized as a social nuisance, a symbol of failure or even as criminals. The deposit owner interviewed said that waste picking is an activity done by ex-convicts and about that the workers affirmed: “they say all waste pickers are criminals, some are and some aren’t”. The division line between illicit and licit activities is difficult to trace by these workers as they narrate that some materials are robbed and brought to the deposit as collected materials, sometimes materials from the electric or telephone net. According to them, the only thing one has to do is to “chop” or “break” the object and sell the parts. Both deposits and associations use to refuse materials that seem to be robbed, but this is difficult to ascertain. However, this kind of behavior seems to be more frequent among independent workers.

Other illicit behavior very common among waste pickers is the use and distribution of drugs, such as “crack”. Among workers alcohol abuse is also common. Drug use is tolerated, but less in the associations than in deposits. Some workers narrate that owners of deposits use to pay workers with drugs.
Health problems

When asked about their health problems and if these problems could be related to work, workers tend to deny saying: “Thank God, I am healthy to work”. The same was reported by Torun et al (2006) in a study with Istanbul waste pickers. However, workers report health problems that can be related to work such as musculoskeletal problems and fatigue due to the physical effort required to push the heavy cart during the work journey: “yes, I have back pain, cause pushing a cart like that, mainly for us women, is a very heavy work, isn’t it?” (FG2).

Some workers report that during the journey, mainly in the middle of the day, probably due to fatigue, heat or lack of food intake, they fell “blank” and have to stop to take a break or to eat something. Some waste pickers also reported that they use to eat food found in the garbage. According to them: “we look to see if it is in good condition, without worms, than we eat it”. Although this is a very frequent behavior, they do not report stomach problems.

In one of the focus groups (FG3), a woman narrated that she had a urinary infection and according to the women present, this was due to the fact that, in general, they use the pushcart and cardboard paper to make a cabin to urinate in the street, without any hygienic condition. Although the occurrence of diseases is not perceived as directly related to work conditions, in one of the groups (FG3), a couple reported that: “Me and my husband here had hansenosis. He was the first to pick the disease, later, it was me, and this is because we use to put materials collected inside our home before taking it to the deposit”. In another group (FG4) a similar discourse described the same kind of situation. The waste picker had an infectious disease and had to be submitted to a chirurgical procedure, where he lost part of the leg and chest musculature. They also report dermatitis, showing the researchers their arms with lacerations.

On the other hand, in all focus groups there were reports of accidents with perforate-cutting objects. Workers do not use gloves or any other protective equipment and when searching for materials in garbage, they can be injured by broken glass, cans and other objects. As they say: “Many times, people do not worry in throwing glass bottles, cans, lamps, forks and knives in the garbage, in the hurry, we open the garbage bag and put the hand there without looking, cutting a finger or the hand”. These accidents are also reported by Medina (1997) and Wilson et al (2006) in their studies with waste pickers.

Falls and traffic accidents are also reported by workers and appear to be very common:
I saw some cans in the other side of the street and decided to pick them. So, when I was crossing the street, I did not look both sides to see if a car was coming... But a motorbike was passing. So I pass between the busses and did not see the bike, which pick me, throwing me in the direction of the buss. The bike ran over me.’ (FG3)

‘And this is what happened… the bus almost took the pushcart. The driver stopped and we make him pay ten “reais”.’ (FG3)

**Conclusion**

According to waste pickers interviewed, they first decide to work with waste picking because of unemployment, criminal antecedents and/or drug abuse. Waste picking is their only possibility of inclusion in the social system, so that the discrimination and social image around the waste pickers figure seem natural. Discrimination is related to the job but appears in the waste pickers’ own discourse, as if they were only good at this kind of occupation. Probably as a defense mechanism, they show some proud to belong to the lower class of the social system, without any possibility of ascending to a better living and working situation, and announce their condition of “autonomy” as the best part of their jobs.

The costs involved in this kind of work are not restricted to issues related to physical health, but reflects questions of social inclusion/exclusion and the stigma of working with the society garbage. Waste pickers, in general, are perceived as tramps, confounded with dirt: men and women of the streets, disposable pieces of the social system (Adametes, 2004; Medina, 2001; Wilson et al, 2006). The waste picker sees the job as a mean of survival, even the associated workers. Waste pickers that consider the associative work as a true way of social and political participation are very rare. Associations provide protection, solidarity and recognition and are a defense against deposit owners, but are not perceived and do not constitute a true model for social inclusion and participation.

Although experiences of waste pickers’ associations in the south of the country have been carried out with relative success and are considered a good example of partnership with local governments and a way of promoting social inclusion (Martins, 2005), the transposition of this idea to the northeast of the country, where workers and population are less oriented towards ecological issues and poverty is much more widespread, will probably not succeed in the same degree. Authorities and NGO have to pay attention to the fact that the management of any workers’ cooperative requires some level of administrative skills that the workers alone, in
Fortaleza, do not have. An effective government and NGO support should include education, donation and maintenance of equipments, as well as supervision and market intervention. Surveillance of deposits is also necessary to guarantee decent working conditions to some extent.

Health problems, besides accidents, are frequent in the workers discourse, showing the precarious conditions of the job and the necessity of special programs focusing this population group, covering education, treatment and prevention of health problems.

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WS3.1-4 Abstract:

‘Ergonomic training program for work improvement using the Ergonomics Good Practices Database’

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The Japan Ergonomics Society Public Relations Committee started running the web site of the “Ergonomics Good Practices Database” in early June, 2008, as part of its activities to spread information and enlighten people about ergonomics and its contribution to society. The Ergonomics Good Practices Database publishes practical examples of ergonomic improvements at workplaces in small and medium sized enterprises (SMEs). Such cases as low cost improvements conducted in actual workplaces are introduced with explanation of work situations before and after improvements with photographs. Each case also provides ergonomic features of the improvement and estimation of the effectiveness, especially focusing on prevention of work related musculoskeletal disorders (WMSDs).

We held a workshop for occupational safety and health related staffs in SMEs to examine the effectiveness of the ergonomic training program for work improvement devised using the Ergonomics Good Practices Database. The training program adopted an approach based on the Problem Based Learning (PBL) method, which provides procedures for developing problem solving skills as well as helping students to acquire necessary knowledge and skills. The results show that the program not only provided a good opportunity to spread ideas and views for ergonomic improvements, but enhanced participants’ awareness that ergonomics plays an important role in workers’ health and safety. We anticipate that the Ergonomics Good Practices Database can also contribute to the promotion of communication among ergonomics practitioners in SMEs, if it provides the society with this training program.
Ergonomic training program for work improvement using the Ergonomics Good Practices Database

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Abstract
The Japan Ergonomics Society Public Relations Committee started running the web site of the “Ergonomics Good Practices Database”. The Database publishes practical examples of ergonomic improvements at workplaces in small and medium sized enterprises (SMEs). Such cases as low cost improvements conducted in actual workplaces are introduced with explanations of work situations before and after improvements with photographs. We held a workshop for OSH staffs in SMEs to examine the effectiveness of the ergonomic training program devised for work improvement using the Database. The results show that the program not only provided a good opportunity to spread ideas and views for ergonomic improvements, but enhanced participants’ awareness that ergonomics plays an important role in workers’ health and safety. We anticipate that the Ergonomics Good Practices Database can also contribute to the promotion of communication among ergonomics practitioners in SMEs, if it provides society with this training program.

Key words
Work improvement, Good practice, Database, Problem based learning, Ergonomic training program
Introduction

The Japan Ergonomics Society (JES) Public Relations Committee started running the web site of the “Ergonomics Good Practices Database (http://www.ergonomics.jp/DB/)” in early June, 2008, as part of its activities to spread information and enlighten people about ergonomics and its contribution to society. Various examples of good practices are provided by people such as JES members and occupational safety and health (OSH) practitioners. Not only professional ergonomists, but also the public, especially consumers and students, can see and learn ergonomically designed products and practices on the web.

The Ergonomic Good Practice section in Ergonomics Good Practices Database publishes practical examples of ergonomic improvements at workplaces in small and medium sized enterprises (SMEs). Such cases as low cost improvements conducted in actual workplaces are introduced with explanations of work situations before and after improvements with photographs. Each case also provides ergonomic features of the improvement and estimation of the effectiveness, especially focusing on prevention of work related musculoskeletal disorders (WMSDs).

In the present paper, we give an outline of the ergonomic training program devised for work improvement using the cases on the Ergonomics Good Practices Database, and introduce some outcomes gotten through workshops of the training program for occupational safety and health related staffs in SMEs.

Methods

Outline of the Ergonomics Good Practices Database

The Public Relations Committee members have realized that the general public today, regardless of ergonomics contribution to the development of good practices in workplaces, only has a narrow knowledge of ergonomic matters. To address this issue, we started running the web site of the “Ergonomics Good Practices Database” not only to send the message that ergonomics provides good practices to society, but also to cause many people including managers, OSH staffs and workers to develop an interest in ergonomics. As of March 2009, more than 60 ergonomic products and practices are registered in the database (Figure.1).
Framework of the ergonomic training program devised for work improvement using the Ergonomics Good Practices Database

Practical training programs based on the Problem-Based Learning (PBL) method have gradually spread and been introduced in many medical schools around the world (Christopher et al, 2002; Kinkade, 2005; Koh et al, 2008). In the PBL method, students (participants) are required to discuss in small groups problems that workers or managers are likely to encounter in real work situations. The facilitator presents the ‘problem’ with a structured scenario in the form of a written statement to students. The structured scenario guides them in developing problem solving skills as well as acquiring necessary knowledge and skills.

On the other hand, in the occupational ergonomics fields, there are similar practical training programs such as WISE (Work Improvement in Small Enterprises) and POSITIVE (Participation Oriented Safety Improvement by Trade Union Initiative) which are widely applied in many countries (Kawakami et al, 1999; Kogi et al, 2003; Itani et al, 2006; Tachi et al,
One of the features those approaches have in common is to utilize spontaneous-activity-oriented methodology on the students' own initiative. Since it seems to be effective in solving complex, real-workplace challenges, we adopted these approaches in the training program.

1) Structured scenario for the ergonomic training program

We had a discussion with OSH staffs and practitioners in SMEs and made a fictional scenario with reference to a practical case on the Ergonomics Good Practices Database. Prior to constructing the scenario, points to be learned needed to be built in the scenario, so that the devised scenario was organized with the following script elements:

1. Statement of themes
2. Basic information about the organization (type of industry, number of employees, etc)
3. Information about the workers’ characteristics, context of task, equipments/tools, work environment
4. Visual materials such as photos of workplace and figures of workstation layout
5. Descriptions regarding WMSDs risk factors (descriptions of individual, physiological and psychosocial factors)
6. Descriptions of problems arisen in the workplace
7. Points to be discussed (Challenges)

These elements were first extracted and then, we composed a detailed scenario with a story line on the assumption that the students themselves would play a role as a member of the occupational health and safety staff in the story. At the beginning of the workshop, the facilitator distributed the written document and illustrated the scenario with slides.

2) Procedures

At the beginning of the workshop, the participants were divided into small groups, then the instructor introduced a detailed scenario that they would discuss in this training program. After that, participants in each group were instructed to spontaneously discuss the problem by following the process below:

(1) Phase 1. Gathering information about the task

Each group gathers information about the task taken up for the scenario. In this phase, participants are expected to deepen their understanding of the workers’ task and the
current situation surrounding the problem by sharing knowledge that they already have from their own experience.

(2) **Phase 2. Estimation of health disturbance induced by the task**

Based on the listed information discussed in Phase 1, which includes information about the characteristics of tasks, the workers and the work environment, they should discuss risk estimation of health disturbance induced by the task in light of ergonomics, i.e., whether the tasks are fit for humans to perform or not.

(3) **Phase 3. Identifying ‘issues to be learned’**

The above discussions (Phase 1 and 2) will inform each group about what they need to know. Here they list ‘issues to be learned’ that must be compensated for their lack of knowledge. In this stage, they can search for such information through the Internet, and if necessary, the instructor may optionally give them a direction or technical knowledge in ergonomics.

(4) **Phase 4. Planning the risk reduction measures**

It is in this phase that each group should be analyzing the problem and entertaining possible solutions. Three points to be addressed that are high in priority in the workplace should be discussed. Furthermore, each group will need to formulate learning goals, outlining what further information is needed, and how this information can best be obtained.

(5) **Phase 5. Sharing the ideas to solve the problem**

Finally, each group makes a presentation to share their findings with the other participants and the instructor. All the instructor has to do in this step is to provide them useful information on possible resources such as related books, web sites, scientific papers, not technical knowledge per se. The important point is that the instructor only acts as a facilitator rather than as a teacher that gives a source of solutions.

3) **Workshops of ergonomic training program for OSH staffs in SMEs**

We held two half-day workshops for students and OSH staffs in SMEs, in April and June, 2009. In the former, a preliminary workshop, as a trial, was held at a university and 15 university students taking a course in occupational ergonomics participated. In the latter, 17 participants from a health care center in enterprises or private clinics took part in the workshop.
These participants were mainly members of OSH staffs and held positions such as occupational health nurses, occupational physicians and industrial hygienists.
Ergonomic training program for OSH staffs in SMEs

CASE 1:
“VDT workers suffering from low back pain in a telecommunication company”

You are currently holding a position as a safety and health supervisor in addition to your own post at a branch office of a telecommunication company with 60 employees (full-time employees: 25 males and 15 females; part-time and temporary employees: 20 females; average age: 52.6 years old). The main work of this company is digitalization of the information about the telephone lines buried underground depicted on the blueprint (A1 size) (carefully check the information on the plan and input the data on the distribution of the telephone lines into the geographical information on the computer screen; see Fig. 1). At the moment, 10 female temporary employees are being engaged in this work.

One day, at the safety and health committee meeting, an increase in the complaints of pain in the neck, shoulder and lower back was reported as a result of a medical interview to these temporary employees (Fig. 2). So, the committee organized a working group to investigate the cause and then take necessary measures. You, as a safety and health supervisor, have joined the working group to draw up a plan.

Information about workers’ characteristics, context of task, equipments/tools, work environment

These 10 temporary employees are all female and solely engage in the task of inputting the information on the plan into the computer. Average age is 45.2 years old and 70% of them are married. According to the result of their health check, BMI (Body Mass Index) was over 25 in six of them, indicating they were somewhat obese. The work place is a 30 minute walk from the local station, so all of them drive their own cars to work (about a 40 to 60 minute commute). They are at work from 8:00 to 15:00 (12:00 – 12:45: lunch break), actually working for 5 hours and 15 minutes a day. Most of the temporary employees come to work 3 or 4 days a week (Mon to Thu or Mon/Tues/Thur).

Walk-through survey at the work place

To begin with, you visited their work place to inspect what kind of work these temporary employees are actually doing (inspection day: 29 Jul 2008, sunny, maximum temperature 36.6°C).

The layout of VDT work (work using a computer) tables was an island type with 2 rows of 4 tables each. You observed their work for 3 hours from 9:00 (time to start working) to 12:00 (before lunch break), and found that they first went to the storage located behind their chairs to take out plans enough for one day of work (about 10 sheets of A1 size plans), then put the plans on the chair next to their own work desk and did their tasks using the chair as a table to spread the plans. Figs. 4 and 5 show how they inputted the information on the plan spread over the chair into the computer.

The chairs they use during their VDT work are 5-legged office chairs with casters and have a fixed back (not a reclining back). There is no imposed daily quota, but it seems to take them about 30 minutes on average to input the information of one A1 size plan.

During your 3-hour observation, most of these temporary employees were working intensively without leaving their desks except when going to the restroom, and many of them were wearing long sleeves and putting a blanket over their laps although it was summer.

Figure 2. Scenario document used in the seminars (Original is written in Japanese)
Points to be discussed

Challenge 1
You have to propose specific measures to improve this problem at the safety and health committee meeting next month, as a safety and health supervisor. However, since you haven’t clearly understood the mechanism of this task, which is digitalization of the information depicted on the plan, you have decided to investigate why they are doing this kind of task.

Give reasons why such tasks as digitalization of the information on the plan in the above case are necessary
- What is the merit of information/data digitalization?
- What mistakes or errors are expected to occur in the process of digitalization?
- When these expected mistakes or errors occur, what problems can arise in the actual tasks?

Challenge 2
Now that you have understood the nature of the task of digitalizing the information on the plan, you have then decided to go over various materials to see what kind of health disturbances can be brought by doing VDT work (computer work) such as the one in this case.

Estimate risks of health disturbance induced by the task
- Give some conceivable health disturbances. (What symptoms or illnesses will be observed?)
- What causes such health disturbances? Specify the factors (problems).

Challenge 3
You have almost figured out what causes disturbances to these temporary employees’ health. Now you have to devise certain measures to eliminate the factors (problems).

What materials or data will you consult when doing this?

Identify ‘issues to be learned’ to solve the problems (What you need to know)
- Make a list of the items you are planning to examine or you think you should understand.

Challenge 4
You have studied various materials and data to draw up some measures these two weeks. Now you have to propose some specific improvement measures at the safety and health committee meeting next week. You need to organize detailed and possibly the most effective measures that can convince the administration and these temporary employees. So, you have decided to have an advance meeting with some of the committee members to discuss what measures can be more effective, based on the research you have done so far.

Make a plan of the risk reduction measures
- Make a list of the items that you should address in the work place to lighten the workload coming from a VDT use as the one in this case.
- Discuss the items you listed above in the group, and select the 3 most important and prioritized items to be improved or addressed. You need to carefully consider the issues such as cost, expected effort and feasibility in order to convince the administration and the temporary employees concerned.

Presentation for sharing the ideas to solve the problems
Now the safety and health committee meeting is about to begin. You are going to give an outline of the items you examined, and then propose a detailed program. You have decided to give an outline of what you did for Challenges 1 to 4 orally, then a presentation using an OHP to explain the 3 most important items to be improved or addressed. What is expected here is a presentation to the safety and health committee, which is comprised of the representatives of the administration and all the employees, and the temporary employees involved in this case. You need to present detailed measures that are considered to be the most effective ones in order to convince all of them.

- Give an outline of what you did for Challenges 1 to 3 orally. Presentation should be made by a speaker representing your group.
- Prepare OHP sheets and give a presentation using them on the 3 most important items to be improved or addressed.
Results and discussions

Figure 2 shows an example of the scenario document used in the workshops. We made the imaginary scenario based on a daily OSH activities with reference to a case about the improvement of VDT work in a telecommunication company (GPDB code No: GP-104, available from http://www.ergonomics.jp/DB/data/GP_003.html, in Japanese). The cases on the Ergonomics Good Practices Database, which provide descriptions about the problems and improved methods introduced in real occupational settings, helped us to make a realistic script. The expected goals to be achieved by participants were to acquire the knowledge and necessary holistic ergonomic points of view for preventing WMSDs. Therefore, we considered it appropriate to begin with a case of VDT work with various risk factors affecting workers’ WMSDs problems. Such a case would also make the participants notice the necessity for multidisciplinary countermeasures for WMSDs.

Table 1 shows an example of the summary discussed in the workshop for OSH staffs conducted according to the scenario document. The emphasis in the initial discussion (Challenge 1) is placed on the analysis of context of work, including job-demand and workers’ psychological aspects. In this case, serious accidents will rise if wrong information is built in the geographical database, because of telephone lines buried at the same level as other lifeline networks such as water and gas-supply lines in Japan. The VDT workers are required to do accurate and careful input under a high demand job though it might seem to be mere data entry work. Thus, the participants realized the importance of comprehensive analysis on context of work, through a discussion about the reasons why the task is needed. The discussion in Phase 2 (Challenge 2) estimates the health disturbance induced by the task. Understanding of the task characteristics in Phase 1 can clarify several work-related disorders caused by multifaceted factors. Multiple factors existing in the VDT work situation were widely identified and the results were shared among the participants. Problem-solving based stories seemed to be effective to broaden their awareness.
Table 1: An example of summary discussed in the workshop for OSH staffs

<table>
<thead>
<tr>
<th>Points to be discussed</th>
<th>Summary of the results obtained through the discussions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Challenge 1</strong></td>
<td>- Information Management (information sharing, easy search, editing, updating)</td>
</tr>
<tr>
<td></td>
<td>- Storage cost savings by computerized documents</td>
</tr>
<tr>
<td></td>
<td>- Age deterioration in the quality of paper blueprints</td>
</tr>
<tr>
<td></td>
<td>- Errors made when reading the blueprints, inputing data</td>
</tr>
<tr>
<td></td>
<td>- Serious accidents will rise in case wrong information is built in the geographical database, because of telephone lines buried at the same level as other lifeline networks such as water and gas-supply lines. Such VDT work requires accuracy and carefulness with high mental workload.</td>
</tr>
</tbody>
</table>

| **Challenge 2**         | - Visual fatigue caused by long viewing time, air flow and ambient visual environment |
|                        | - Leg swelling caused by sustained sitting postures which increase the pressure on the thighs and the compression of the blood vessels in the lower-limbs, and restricted leg movement with narrow foot space |
|                        | - WMSDs such as low back pain or neck pain caused by constrained or sustained posture, frequent twisting or repetitive movement and inappropriate working height or work-rest schedule. |

| **Challenge 3**         | - Relationship between productivity and psychological or psycho-social factors |
|                        | - KAIZEN (work improvement method) |
|                        | - Cost estimation for improving working conditions |
|                        | - Ergonomic criteria for appropriate work station (working height, work area, chairs) |
|                        | - Appropriate work-rest schedule for VDT work |
|                        | - Risk of health disturbance induced by repetitive and monotonous work |
|                        | - Evidence that cold air causes stiff shoulder or leg swelling |
|                        | - Design requirement for appropriate visual work environment |
|                        | - Ergonomic measurements or evaluations for local muscular workload, subjective fatigue |
|                        | - Related occupational health and safety acts |

| **Challenge 4**         | <3 most important and prioritized items proposed by each group> |
|                        | - Improvement of work-rest schedule (3 groups) |
|                        | - Introduction of adequate work table for the VDT work (3 groups) |
|                        | - Introduction of regular physical exercise (1 group) |
|                        | - Temperature control of the VDT work office, including air-flow |
Table 2 Results of the questionnaire for evaluating the ergonomic training program

<table>
<thead>
<tr>
<th>A. Ergonomic program for OSH staffs in SMEs (n=17)</th>
<th>B. Ergonomic program for university students (n=15)</th>
<th>p value$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you satisfied with this program?</td>
<td></td>
<td>0.008</td>
</tr>
<tr>
<td>1. not at all</td>
<td>0 (0)</td>
<td>2 (13)</td>
</tr>
<tr>
<td>2. not much</td>
<td>1 (6)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. neither yes nor no</td>
<td>2 (12)</td>
<td>1 (7)</td>
</tr>
<tr>
<td>4. yes, a little</td>
<td>10 (59)</td>
<td>1 (7)</td>
</tr>
<tr>
<td>5. yes, markedly</td>
<td>4 (24)</td>
<td>11 (73)</td>
</tr>
<tr>
<td>2. Are you getting interested in the program?</td>
<td></td>
<td>0.427</td>
</tr>
<tr>
<td>1. not at all</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2. not much</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. neither yes nor no</td>
<td>0 (0)</td>
<td>1 (7)</td>
</tr>
<tr>
<td>4. yes, a little</td>
<td>7 (41)</td>
<td>4 (27)</td>
</tr>
<tr>
<td>5. yes, markedly</td>
<td>10 (59)</td>
<td>10 (67)</td>
</tr>
<tr>
<td>3. Do you think that this program can contribute to the promotion of communication among participants?</td>
<td></td>
<td>0.765</td>
</tr>
<tr>
<td>1. not at all</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2. not much</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. neither yes nor no</td>
<td>3 (18)</td>
<td>2 (13)</td>
</tr>
<tr>
<td>4. yes, a little</td>
<td>6 (35)</td>
<td>4 (27)</td>
</tr>
<tr>
<td>5. yes, markedly</td>
<td>8 (47)</td>
<td>9 (60)</td>
</tr>
<tr>
<td>4. Can you spread the ergonomic point of view for work improvement through this program?</td>
<td></td>
<td>0.550</td>
</tr>
<tr>
<td>1. not at all</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2. not much</td>
<td>1 (6)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. neither yes nor no</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>4. yes, a little</td>
<td>9 (53)</td>
<td>7 (47)</td>
</tr>
<tr>
<td>5. yes, markedly</td>
<td>7 (41)</td>
<td>8 (53)</td>
</tr>
<tr>
<td>5. Do you understand that ergonomics plays an important role in workers’ health and safety?</td>
<td></td>
<td>0.567</td>
</tr>
<tr>
<td>1. not at all</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>2. not much</td>
<td>1 (6)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>3. neither yes nor no</td>
<td>1 (6)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>4. yes, a little</td>
<td>5 (29)</td>
<td>6 (40)</td>
</tr>
<tr>
<td>5. yes, markedly</td>
<td>10 (59)</td>
<td>9 (60)</td>
</tr>
</tbody>
</table>

Note: OSH: Occupational Safety and Health, SMEs: Small and Medium sized Enterprises

$^a$ Yates’ chi-square test for independence between distributions observed in each ergonomic program.

concerning various health disturbances that should be addressed at such workplaces. In the subsequent discussion (Challenge 3), it is also supposed that the process could contribute to enhance participants’ awareness of what they need to know to solve the problem. And this seems to lead to shedding light on ideas for planning possible solutions, as shown in the
proposed items discussed in Phase 4 (results of Challenge 4). Most of them had ergonomic aspects with feasibilities and usefulness of solving the problem in the actual context of work. Thus, ergonomic training programs using a structured scenario can activate discussions and lead to a variety of ergonomic improvement ideas.

Finally, the results of the questionnaire for evaluating the ergonomic training program were shown in table 2. All 32 participants of both workshops responded to the questionnaire. The results showed that 24% (OSH staffs in SMEs) and 73% (students) were very satisfied with this program and significant differences were shown in the distribution between the enterprise and the university (P<0.01). As for the interest in the program, about 60% of the respondents in each workshop became very interested. Around 50% respondents evaluated this program effective for the promotion of communication among participants and contributory for spreading the ergonomic point of view for work improvement. Furthermore, 60% of them understood that the program played an important role in workers’ health and safety.

In conclusion, the Ergonomics Good Practices Database provides useful materials such as problems and improved methods introduced in real occupational settings. This information helps us to make a structured scenario for the ergonomic training program with a realistic script. It also confirms that a devised ergonomic training program can contribute to providing a good opportunity for spreading ideas and holistic views for ergonomic improvements as well as enhancing participants’ awareness that ergonomics plays an important role in workers’ health and safety. We anticipate that the Ergonomics Good Practices Database can also contribute to the promotion of communication among ergonomics practitioners in SMEs, if it provides society with this training program.

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Tachi N, Itani T, Takeyama H, Yoshikawa T, Suzuki K, Castro AB (2006), Achievement of the POSITIVE (Participation-Oriented Safety Improvement by Trade Union Initiative) activities in the Philippines. Ind Health 44:87–92
Presentations, session WS3.2:
Chairs: Kazutaki Kogi and Toru Itani

Time: Wednesday 21 October, 17.15-18.45
Location: C-13
Abstract:

‘Addressing Issues of Job Quality in Small Enterprises’
by G. Joshi, Dr.; International Labour Organization, Geneva, Switzerland

Background & Problem Statement: Job Quality (JQ) in small enterprises has been challenging due to several reasons, including lack of awareness and resources among small enterprises (SEs) and nature of their linkages to larger enterprises. In pursuit of competitiveness, linkages along the value chain have witnessed variations in the levels of JQ. Current financial crisis has further exacerbated the situation. How to link JQ improvement to link with enhancement in productivity and incomes would be the principal inquiry of the paper. What does the evidence say and what additional work is needed? ILO (International Labour Org.) has according to its Decent Work agenda defined JQ in relation to adherence to its core labour standards and providing working conditions with workers’ protection.

Approach/method(s) used: Various country cases and survey results have been generated within and outside the ILO. They are being reviewed to identify the issues required to be addressed in linking JQ to productivity enhancement. A global research on JQ as well as extensive survey of clusters of small enterprises has been carried out. How do the findings of this search help clarify the issues is an important question discussed in this paper. The ILO has also carried out programmes for JQ improvement besides collaborating with other agencies. The question regarding how the above materials being reviewed provide a guide to facilitate the field work is being examined.

Results: Various programmes have used innovative tools, including the tool developed by the author. Although the legal and moral arguments have been made earlier by the ILO, clear evidence of economic benefits have not been yet established, except for anecdotal evidences. There is a need for clarifying the aspects of JQ that have to be examined in terms of specific economic benefits to the enterprises, particularly along the value chain.

Conclusion(s): The paper provides the aspects of JQ that need to be further examined to link its improvement to economic benefits in terms of higher productivity and incomes. It also describes the approach required in the further study of JQ.
Paper

Job Quality in Micro & Small Enterprises (MSEs)

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Abstract:

How is job quality (JQ) understood and what are the possible ways of improving it have determined the understanding of its impact micro and small enterprises (MSEs). Although the issues may require solid empirical evidence for a full debate, this paper sought to examine some of the research findings from various countries.

Various ILO studies and data from surveys in Europe and North America have been utilized to examine understanding of the JQ and its improvements.

Conclusive link of the JQ to enterprise growth has to be still examined on the basis of empirical evidence although there are some indications that higher social protection in larger firms has sustained their growth.

Key words:
Job Quality, Working Environment, Productivity, Competitiveness, Value Chain

1.0 Introduction. Following issues have been voiced at various times regarding Job Quality (JQ) in micro and small enterprises (MSEs):

i. How is JQ understood among the countries and within the ILO?
ii. What is the state of JQ, and what are the possible ways of improving it?
iii. Are JQ improvements costly for the employers making their enterprises unsustainable?
iv. What has been the impact of JQ programmes?

Although above issues may require solid empirical evidence for a full debate, this paper intends to examine some of the research findings from various countries surrounding these issues. A
word of caution may be warranted here that survey of perceptions may not necessarily accurately reflect the facts on the ground.

The term ‘job quality’ refers to a range of inter-connected employment concerns, which relate to the ILO’s (International Labour Organization, Geneva) Fundamental Principles and Rights at Work (ILO, 1999b), which provide the minimum social floor for workers’ protection through eight conventions.¹ Various other Conventions and Recommendations of the ILO cover other crucial rights; such as, social security, occupational health and safety and conditions of employment and work.² ILO’s Recommendation 189 (1998) suggested that national development goals in the Member States should aim at improving job quality and social protection leading to a better quality of life.

JQ dimensions have been the yardstick for measuring the status of job quality in a given enterprise, subsector or a country. These dimensions also explain and define the extent of JQ in a given situation. There have been various ways how JQ dimensions have been expressed in papers and studies.

In its discussions, research and programmes on Job Quality, the ILO has used the following components as comprising JQ (Figure 1 below):

**Figure 1: Job Quality Dimensions**

![Job Quality Dimensions Diagram](image)

Based on ILO: *Job Quality and Small Enterprise Development*, SEED Working Paper

The European Commission has a broad view of the concept of job quality in practice. It relies on a selection of labour market type indicators that provide findings on the quality of job. The Lisbon Strategy, launched in 2000, called for creating more and better jobs in Europe.³ The goal of better jobs has been less ardently pursued though. It is against this background that the ETUI (European Trade Union Institute) has developed a Job Quality Index (JQI). The JQI covers all EU-27 countries and separate indices have been calculated for men and women. It consists of following six elements that can be used as sub-indices.

- wages,
- non-standard forms of employment,
- work-life balance and working time,
- working conditions and job security,
- training and career advancement, and
- representation and participation.

1.1 Why improve JQ? JQ has gained greater prominence due to the following concerns:

i. Increasingly, enterprises, particularly larger sourcing firms, are concerned about the conditions under which products are manufactured under the globalized environment.

ii. Businesses have recognized the skills and experience as assets in the competitive environment.

iii. Informality and casualization of the labour are increasingly associated with poverty, which UN MDGs (Millennium Development Goals) have targeted to halve by 2015.

iv. ILO’s Decent Work is widely accepted among the development agencies as an essential ingredient in creating conditions for creation of productive jobs in sustainable enterprises.⁴

JQ remains central to ILO’s Declaration on Social Justice for a Fair Globalization⁵ in 2008 and its Decent Work (DW) agenda (ILO, 1999a). The concept of DW emphasizes on generating productive, remunerative work with equality, protection and rights. In agreement with the ILO’s DW agenda, JQ places importance on achieving enterprise growth with higher
productivity through better workers’ protection. How to balance the enterprise growth and workers’ protection remains an important issue within the ILO discussions.\textsuperscript{6}

With the Global Financial Crisis since 2008, JQ situations all over the world, specifically in developing countries, have worsened and is not likely to improve soon. The ILO has estimated that time lag between the previous crises and recovery in employment creation has been 6-8 years (ILO, 2009). By the end of 2009 there could be an increase in global unemployment of more than 50 million and that some 200 million workers could be pushed back into extreme poverty and informal economy.

\textit{In its Interim Report in March 2009, the OECD (Organization for Economic Cooperation and Development) forecast double-digit unemployment in the OECD area for end 2010, at 10.1 per cent in the fourth quarter. Workers on temporary and other non-standard contracts and those without any contract at all are the first to suffer the effects of the crisis. There is a widespread perception that many new jobs created are “bad” jobs. Increasingly workers are being asked, or forced, to work longer and/or more unsocial hours and to accept fixed term and other precarious work contracts.}\textsuperscript{7}

The problem is particularly acute in developing countries, where social protection is often minimal; but even in emerging economies and a number of developed countries, coverage are limited in several areas. Social hardship and family vulnerability are heightened, with only one fifth of the world’s population having access to support through social security schemes.\textsuperscript{8}

\textbf{1.2 Informality and Poverty.} Even in countries with high growth rates until recently, informal work and by extension MSEs have been on the rise. An UNCTAD Report in 2008 concluded that the rapid economic growth in the developing countries has not necessarily accelerated the rate of poverty reduction. The persistence and depth of poverty is strongly related to both the structure of employment and the very low level of productivity. Due to low productivity and incomes, poverty in many developing countries is associated with the economic units (MSEs) operating within the informal economy.

ILO’s International Labour Conference (ILC) in 2002 in Geneva stated that informal economic activities are generally not covered or insufficiently covered by formal arrangements in terms of operating without compliance to the existing legal requirements (ILO, 2002b). Most MSEs in
developing countries are, however, neither completely formal nor informal although they are heavily influenced by the state of their informality.

Though the employment share of most economies is dominated by MSEs (as much as 72% in Sub-Saharan Africa with 84% women), their contribution to GDP remains quite low. Table 1 below illustrates the economic units within the informal economy as a percentage of the GDP in various regions. Larger shares of employment in the informal economy are thus associated to poverty with low incomes.

Table 1: Size of the Informal Economy (as a percentage of GDP), 1999–2000

<table>
<thead>
<tr>
<th>Regions</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>42.0</td>
</tr>
<tr>
<td>Asia</td>
<td>26.0</td>
</tr>
<tr>
<td>Latin America</td>
<td>41.0</td>
</tr>
<tr>
<td>European Transition Countries</td>
<td>38.0</td>
</tr>
<tr>
<td>OECD Countries</td>
<td>17.0</td>
</tr>
</tbody>
</table>

Note: Average percentage based on the 23 African, 26 Asian, and 18 Latin America and the Caribbean, 21 OECD, and 23 European Transition Countries

Note: Self employment is used as a proxy for employment in the informal economy


In many countries, pursuit of economic growth without much consideration for employment generation has resulted in ‘jobless growth.’ Encouragements to foreign investments and large businesses further exacerbate the situation, leaving low wage and survival activities remaining in the economic units within the informal economy. Further, small economic units are encouraged to remain small through disincentives in the regulatory requirements (Joshi, 2008). Such phenomenon was observed as a ‘Growth Trap’ for the MSEs (Reinecke and White, 2004).

The growing informal economy has resulted in the tendency of globalizing large enterprises to focus on short-term immediate gains in the form of low wage competitiveness, sort of the ‘race to the bottom.’ The formal enterprises and multinational enterprises may see an opportunity to
cut costs through low wages and labour market flexibility in terms of not having to shoulder the responsibilities of providing full workers’ protection and benefits. Alternatively, the competitiveness could also be based on retaining human resources with higher job quality.

The critical question is whether the enterprise growth can occur through improvements in JQ that are more productive and are generating higher incomes. Or, MSEs remain persistently marginal providing subsistence living to their workers and operators.

Whether the public policy provides the incentives for the firms to take such actions is an important issue. States may need to have a strategy for reducing informality through improvements in JQ and productivity among the MSEs. What roles can workers, private sector (employers), civil society and the community in general play in JQ improvement would be another important consideration.

**2.0 Approach.** The JQ components mentioned earlier can also be turned into indices for measuring it. Many agencies in the west though may also be found to rely on hourly wages as a simple, easily measurable indicator of job quality.

For instance, the Center for Law and Social Policy (CLASP in the US) provides a list of the job quality components, which do not directly translate into a scheme for rating jobs. Some aspects of job quality, such as work schedule and workers’ voice, may be difficult to quantify. It may be also hard to assign weights to each element of a job.

Although an ideal measure of job quality may reflect good working conditions, good wages and other job characteristics, data may not allow for the accurate. There is a great deal of variation in turnover rates even between companies in the same industries, and researchers have confirmed that high worker turnover is a strong indicator of lower-quality job ladders. Several organizations have developed schemes for rating employers in order to prioritize funding or services to those that offer the highest-quality jobs.9

**2.1 Databases.** Human resource development efforts in several countries; such as, in Canada, US, and Nordic countries in Europe, have made JQ centrepiece of their programmes and have innovated their standards and measures regarding JQ.

In the US, JQ is updated with occupational data and the census of employment and wages and from Department of Labor, which is available for 2004 for each state.10 The majority of the research in the US on the effects of flexibility and other elements of job quality has focused on
highly paid employees, with “competing for top talent” and “retaining professionals” among the commonly cited benefits. While low-wage workers are far less likely to experience workplace flexibility, some studies suggest that flexibility may have even greater impacts on their engagement, retention, and well-being.

Canada has on-line survey and compares the results with 17 countries. The information is collected on dozens of job quality issues; such as work hours, job satisfaction, work-life balance, communication, trust, and etc. under the following categories: a) work-life balance; b) security; c) job design; d) pay and benefits; and e) relationships. Findings from the on-line surveys were filled out by website (http://www.jobquality.ca/index.shtml) visitors on such issues, as:

- What do you value in a job?
- How would you rate your working conditions?

Results from the past surveys are available by clicking on the survey results. Interviews on job quality with leading human resource and labour representatives (i.e. from RBC Financial, Diavik Diamond Mines, Bell Canada Enterprises, etc.) are also available on the website.

For Europe, job quality has been analyzed utilizing the data from the European Working Conditions Survey (EWCS), 2005 along three dimensions: job content, autonomy and working conditions (Smith; Burchell; Fagan; and O'Brien, 2008, pp. 586-603). The results have revealed the value of developing indicators of job quality that are both gender sensitive and derived at the level of the job rather than the labour market.

The data used for the index is sourced from the European Labour Force Survey, European Working Conditions Survey, the AMECO database, the Survey of Income and Living Conditions and the ICTWSS (Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts) database. In certain areas caution is required when interpreting the figures due to a number of important data restrictions.

2.2 ILO studies. The ILO has had programmes advancing quality of employment under its DWCPs (Decent Work Country Programmes) and GEA (Global Employment Agenda). Recent discussions in the ILC 2009 (International Labour Conference, annually held in Geneva) on Jobs Pact in the face of the Global Financial Crisis has lent added emphasis on JQ (ILO, 2009).
The ILO has had JQ programmes since late nineties and has launched several country studies in early 2000s (Caribbean island countries, El Salvador, Ghana, India, Jordan, Panama, Philippines, Uganda, and Viet Nam) besides recording country experiences.\(^7\)

In 2001-02, most of the ILO’s country studies surveyed 50 enterprises including micro-enterprises and a number of workers and employers. For instance, surveys were carried out among 33 micro-enterprises and 103 workers in Ghana; 74 enterprises in 10 MSE clusters in Northern India; 125 employers and workers in Jordan; 76% micro-enterprises in Peru; 32 micro enterprises with 2-5 employees in Uganda, etc. Findings of these assessments also reveal the impact of the ILO’s JQ programmes.

Using data sets from the World Bank’s Regional Program on Enterprise Development (RPED), the ILO has compared JQ in Tanzania with 8 other African countries (Burundi, Cameroon, Cote d’Ivoire, Ghana, Kenya, Tanzania, Zambia and Zimbabwe) in 1993-96 (ILO, 2002a).

Utilizing its tools (I-WEB – Improve Your Work Environment and Business; and Managing Your People module within the SIYB), the ILO has implemented its JQ programmes. In MSE clusters (i.e., Moradabad brassware cluster in India), it has adapted its tool (I-WEB) in working with the lead firms and their supply chain.

### 3.0 Results

As discussed above on how countries approach various JQ elements, differences are obviously apparent. The ILO emphasizes on DW aspects of workers’ protection and Social Justice for its Member States while continuing on the job creation through enterprise growth. On the other hand, developed countries emphasize more on wages, flexibility at work and autonomy as critical components of JQ.

There a vast difference in working conditions and literacy between developed and developing countries. Health and safety conditions do not even attain minimal standards in the MSEs operating in the informal economy in developing countries. Issues, such as, wages, autonomy, casualization of the labour, job security and health and safety, etc. remain important in developed countries.

Center for Law and Social Policy in the US (CLASP) places ‘Wages’ in the center of job quality components, which includes the work schedule, benefits, fairness and workers’ voice, job security, health and safety and advancement opportunity, which are depicted in Figure 2 below.
Job quality in the United States between 2001 and 2004 was noticed to have fallen nationally at a relatively fast pace, although the recession ended in 2001 (Rex, 2006). Declines in industrial job quality in the US caused the average wage to fall 1.6 percent between 2001 and 2004. The decrease in occupational job quality was not quite as great at 0.9 percent. Thus, overall U.S. job quality dropped 2.5 percent during the three years.

The employment dimensions provide a fourfold typology of systems in Europe (Coats and Lekhi, 2008):

- the Nordic (or inclusive) model;
- the liberal market model (UK and Ireland);
- the corporatist model (Germany, Benelux – and to some extent France); and
- the Southern model (Spain, Italy, etc).

In comparing various European and North American countries in Figure 3 below, workers ranked high (almost 54%) with ‘very satisfied’ with working conditions in Denmark whereas Portugal ranked the lowest (13.5%). Only 17 percent of the survey respondents in average were ‘very satisfied’ with their overall working conditions.
3.1 Job security. Job security is an important aspect in the quality of employment. Job security reduces workers’ sense of economic vulnerability and anxiety, allowing them to make financial plans for the future. Thus, secured job provides the confidence for the workers to plan for the work and life ahead. Written contract and termination procedures are very important for the sense of job security.

Overwhelming majority of the workers in the countries surveyed by the ILO in 2001-2003 (81% in El Salvador; 91% of micro and 68% of small-scale enterprise workers in Ghana; 79% of the workers in Jordan; 72% in Panama; 86% in Peru; over 90% in the Philippines; and 87% in Uganda) did not have a written employment contract; conditions of their employment were only fixed through verbal agreement.

In 2004, when asked the extent of their job security, 62 percent of the Canadians agreed that the job security was good to a large extent, and 28 percent agree to some extent (http://www.jobquality.ca/). Only 9 percent of Canadians were not as optimistic.

A picture is revealed on Europe (Figure 4) by two Eurobarometer surveys from 1996 and 2001, which show a fall in job security over that period (1996-2001).

These figures though can conceal though some significant differences between occupational groups, sectors, men and women, or permanent and temporary employees. The most significant factor, not surprisingly perhaps, is contractual status, with temporary workers generally feeling less secure than permanent employees.

For example, permanent employees in France are more than twice as secure as temporary workers, whereas Denmark has the narrowest gap between the reported employment security of permanent and temporary employees.
If the EU 15 countries were analysed on the basis of job quality vs. job security, it becomes clear that the Nordic model generates superior performance (Table 2). The experiences in France, Germany and the UK may be characterised by too much low quality employment.

**Table 2: Percentage of workers in job quality/job security categories**

<table>
<thead>
<tr>
<th></th>
<th>High Quality Secure</th>
<th>High Quality Insecure</th>
<th>Low Quality Secure</th>
<th>Low Quality Insecure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nordic</td>
<td>48.3</td>
<td>11.9</td>
<td>25.9</td>
<td>13.9</td>
</tr>
<tr>
<td>Liberal</td>
<td>34.4</td>
<td>7.6</td>
<td>32.2</td>
<td>25.8</td>
</tr>
<tr>
<td>Continental</td>
<td>38.9</td>
<td>10.2</td>
<td>24.6</td>
<td>26.2</td>
</tr>
<tr>
<td>Southern</td>
<td>30.3</td>
<td>9.9</td>
<td>27.3</td>
<td>27.3</td>
</tr>
</tbody>
</table>

As Paugham and Zhou (2007) stated, both Denmark and Sweden have the highest percentages of high quality employment – 68.8 and 53.3 respectively, although Sweden has a much higher percentage of high quality insecure employment than any other country, a feature that can be attributed to the significant restructuring of the Swedish economy in recent years.

Tougher labour laws have not generated higher levels of employment security, for example, in France and Germany. What is most striking perhaps is that the UK, France and Germany look remarkably similar on these measures.

3.2 Safety and health risks. In 2001-03, the ILO JQ surveys found that the workers (46.3% male & 23.1% of female) in Jordan, Peru (20%), and Uganda (67%) had suffered injuries at the workplace. Most common form of injury is a cut in all countries (Jordan, almost half of the male workers; Panama, 67%; Philippines, 34.7%; and Uganda, 68%). Cuts were mostly followed by grazes, burns and bruises. In Peru also, cuts and punctures were followed by fractures and burns.

In comparing various European and North American countries in Figure 5 below, percentage of workers who regarded their health and safety risks at the job varied from the high of over 44% for Portugal to low of 5.5% for Sweden. Almost one third (31.7%) of the survey respondents in Canada and 28% in USA felt that their health or safety at risk on their jobs. The study presents the important finding of direct and indirect benefits of healthy work environments as higher job satisfaction, lower absenteeism and turnover, improved job performance and lower accident rates.

Figure 5: Comparison of safety and health risks on the job (% workers)
The main cause of accidents in Panama was reported to be the misuse of tools, equipment and work methods and to human error. On other hand in Jordan, workers (females 76.9% and males 51.0%) indicated unsafe conditions or improper protection as a main reason rather than unsafe behaviour or poor handling on their part (Figure 6 below).

**Figure 6: Causes of injuries (workers) in Jordan**
Workers reporting injuries in Uganda attributed those injuries mainly to poor handling of machinery/tools (46%) and during the cleaning and sharpening of equipment (25%). Both the entrepreneurs and the workers in Peru stated that the accidents are caused by unsafe use of machines and say that this should be corrected. Basic requirements for improving organization at the workplace are: a) increasing the physical area and equipment; b) order and cleanliness; and c) redesigning the layout. The main reason for not implementing these measures is the cost or lack of resources.

In the Philippines, sharp tools and materials and hot tools and equipment were the common causes for cuts and burns respectively. Since most work in the micro and small enterprises surveyed required manual skills, majority (60%) of the workers stated that their usual speed in doing their work was affected by injuries sustained. The injuries suffered in Peru caused 72% of the entrepreneurs and 42% of the workers to lose time off from work.

Health complaints in Uganda normally relate to eye problems due to presence of dust in the workplace; and backaches, joint and muscle pains are due to working in uncomfortable positions and carrying heavy loads. The injuries resulted in absence from work for 37% and 36% of the injured employers and workers respectively.

*The physical risks in Peru were similar for the employers and the workers (Table 3), and they gave priority to improvements in lighting and ventilation. The entrepreneurs and the observation have indicated the need for the improvements in the elimination of dangerous electric connections and the installation of fire extinguishers.*

Table 3: Improvements Needed in the Work Environment in Peru

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Entrepreneur</th>
<th>Workers</th>
<th>Observation</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th></th>
<th>$</th>
<th>5</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>4</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Physical</td>
<td>28</td>
<td>25</td>
<td>95</td>
</tr>
<tr>
<td>Chemical</td>
<td>2</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Safety</td>
<td>31</td>
<td>1</td>
<td>83</td>
</tr>
<tr>
<td>Ergonomic</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Services</td>
<td>8</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>None</td>
<td>7</td>
<td>18</td>
<td>0</td>
</tr>
</tbody>
</table>


The lack of awareness of health and safety concerns of most employers and employees in Peru have contributed to the occurrence of these work-related health problems. In preventing environmental hazards, majority (80%) said no improvement within the workplace was necessary.

Although the entrepreneurs and workers had a marked absence of awareness to chemical risks, they indicated as a priority, improved storage of chemicals and dangerous materials, and a lower noise level in the areas where the people live or work.

Majority of the workers and employers (56% and 57% respectively) in Uganda feel that no action needs to be taken to reduce the environmental hazards brought about by their business operations. The most common measure suggested to control environmental hazards was to reduce the level of noise. The second most mentioned measure was the regular collection of solid waste.

**3.3 Social protection.** In the case of the work-related death, employers (36% in Panama, mostly micro-enterprises; and 44% in Uganda) expect their dependents would be compensated by the company compared to only 8% of the workers in Uganda, suggesting there is no mechanism to support the families of deceased employees (ILO JQ Surveys, 2001-03).

Most of the workers (69.4% male & 46.2% female workers in Jordan; 66% in Mandaue City and 36 percent in Quezon City in the Philippines) did not receive any compensation for their dependents in
case of death due to sickness or work-related accidents. Most of the employers (64%) did not have disability insurance in case of work-related disease or accident.

Almost half (46%) of the proprietors and 40% of the workers in Panama thought that their income would decrease if they lost their jobs or enterprises, while 36% and 30% respectively did not know what their income situation would be.

A similar situation existed in the disability area with 30% of the proprietors stating that they did not know how they would be compensated. The other 20% expect support by family members and the enterprise.

In Peru 50 enterprises, almost half (47%) had health problem associated to work, yet only 3.4% workers in Peru had disability insurance. None of the workers contributed to a pension scheme. In comparison, even the poorest men and women (55% & 40% respectively) in Chile contributed to some type of pension fund.

In the Philippines, nearly three-fourths (74% in Mandaue City and 72% in Quezon City) of all workers stated that they did not receive any income when they were too sick to work. This finding highlights the fact that most employees in micro and small enterprises are outside the mantle of protection of the Social Security System in the Philippines.

Workers (82% in Ghana; 44.9% male and 50% female in Jordan) did not expect that pension benefits would be part of their expected income. Means of subsistence for the workers in India remains the family support (32%) whereas one-fifth (22%) of the workers did not know how their livelihood would be maintained (Joshi, et.al, 2005).

In Panama, it is estimated that social security coverage encompasses 63.7% of the workers in the country. Half of the enterprises (micro, 42% and small, 71%) were registered in the social security system. Nevertheless, research evidence points out that the micro-enterprises did not insure all of their workers (Figure 7).

**Figure 7: Social Security coverage in Panama**
3.4 Minimum wage and overtime. ILO’s JQ surveys (2001-03) found that wages in most developing countries were below the set minimum wage, with variations between micro and small enterprises, on the basis of gender (18% males and 57% females in Ghana) and among the countries (14% in Ghana and 38% in Panama).

One-fifth of the workers worked over 60 hours per week in Mandaue City in the Philippines (51 to 60 hrs./week by 46%). In Quezon City, 11% of the workers spent 51-60 hours at work each week.

In Peru, a quarter of the workers (28%) and a majority (64%) of the employers worked beyond 56 hours a week, although almost three quarters of the workers and a third of the employers earned less than $170.

Nearly a third of the workers (29%) in India worked more than 50 hours a week (Joshi, et.al., 2005). In many of the enterprises in Uganda, there was no provision for extra pay for those who work overtime, for both employers (83%) and workers (78%). Despite the fact that 10% of the workers in Panama work between 49 and 58 hours weekly, the maximum hours for a work shift including overtime permitted by the Law, some 40% of the workers claimed that overtime was not paid.

The hours of work in the EU 15 is relatively better with Finland and France leading the continent and Spain and the UK having high percentage of workers working more than 48 hours a week (Figure 8). The percentage of workers working excessive hours remains high in Central and Eastern Europe.

Figure 8: Workers working more than 48 hours a week
In Canada, only about half of this overtime is paid (http://www.jobquality.ca/). UK’s position (with the second lowest average working hours) reflects the high incidence of part-time work. France has the third lowest average working hours in the EU but this is best explained by the operation of the 35-hour week law.

Over 20 percent of the male workers were found in Jordan in an ILO study to work for more than 60 hours a week, while 18.4% of the workers worked between 49-60 hours a week. In comparison, a smaller percentage of females (7.7%) worked from 49 to 60 hours and only 3.8% worked for more than 60 hours a week. Half of the employees (50.7%) indicated they did not receive any extra payment.

In El Salvador, 44% of the employers and 23% of the workers worked more than 55 hours per week. The findings suggest that 30.6% of the workers were not compensated.

3.5 Skills development. In a survey in India, the ILO found that the major reason for the workers not being able to access skills are due to absence of opportunity and awareness rather than affordability (Joshi, et.al, 2005). Most workers (86% in India; 81.5% in Jordan; 90% in the Philippines; 75% in Uganda) had on-the-job learning of the skills (ILO JQ Surveys, 2001-03).
One quarter of employers and more than a third of workers in Uganda did not have any training as illustrated in the Figure 9 below. New skills had been acquired through on-the-job training for 58% employers and 75% workers. Only 10% and 6% of the employers and workers acquired new skills off-the-job.

Figure 9: Skills Development in Uganda


In Peru, almost a quarter (24%) of the workers received training in aspects related to their work in the last two years. Majority (57%) of those who received training paid their own training costs, and only a fifth (21%) in Peru and 44% in the Philippines received the training free of charge.

In comparing various European and North American countries in Figure 10 below, Finland (92%) and Denmark (91%) had the highest levels of skill match with the job requirements. Lowest was in the US with 75% skills match only. A majority of on-line respondents (61%) indicated that their skills match the demands of their current jobs (in Canada, website: http://www.jobquality.ca/index.shtml).
Figure 10: Comparison of the skills match (%workers)

<table>
<thead>
<tr>
<th>Country</th>
<th>Survey Respondents</th>
<th>How Well Workers Feel Their Skills Match the Demands Imposed by their Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>18%</td>
<td>75.7</td>
</tr>
<tr>
<td>Canada</td>
<td>6.7%</td>
<td>100.3</td>
</tr>
<tr>
<td>Netherlands</td>
<td>9.3%</td>
<td>85.1</td>
</tr>
<tr>
<td>Italy</td>
<td>8.4%</td>
<td>61.5</td>
</tr>
<tr>
<td>UK</td>
<td>10.9%</td>
<td>81.9</td>
</tr>
<tr>
<td>Austria</td>
<td>7.3%</td>
<td>84.9</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>12.6%</td>
<td>79.4</td>
</tr>
<tr>
<td>Sweden</td>
<td>7.1%</td>
<td>85.3</td>
</tr>
<tr>
<td>Spain</td>
<td>7.7%</td>
<td>84.6</td>
</tr>
<tr>
<td>Ireland</td>
<td>16.2%</td>
<td>82.4</td>
</tr>
<tr>
<td>Germany</td>
<td>5.8%</td>
<td>87.1</td>
</tr>
<tr>
<td>17 Country Average</td>
<td>7.6%</td>
<td>85.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>4.9%</td>
<td>83.2</td>
</tr>
<tr>
<td>Greece</td>
<td>1.0%</td>
<td>84.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>24%</td>
<td>91.4</td>
</tr>
<tr>
<td>Finland</td>
<td>7%</td>
<td>82.3</td>
</tr>
<tr>
<td>Belgium</td>
<td>8.3%</td>
<td>85.7</td>
</tr>
<tr>
<td>France</td>
<td>11.5%</td>
<td>43.5</td>
</tr>
</tbody>
</table>

The demands are too high  They match  The demands are too low
3.6 Equality at work. Men and women experience substantial differences in job quality in the different sub-indices: women do much worse in terms of pay and non-standard employment, but better in the areas of work-life balance and working-time and working conditions. Assuming equal weighting of the six sub-indices, in most EU countries men and women have similar overall results on job quality (Smith; Burchell; Fagan; and O'Brien, 2008, pp. 586-603).

Among the women workers (24%) in the Philippines, the ILO (JQ Surveys 2001-03) found that almost all (96% in Mandaue City & 85% in Quezon City) declared that they did not encounter difficulties in finding a job.

In enterprises where there were women employees, majority (65%) in Mandaue City (20% in Quezon City) in the Philippines claimed that the wages or salaries of women and men employees doing the same job were the same. On the other hand, in most of the enterprises without women workers, majority (53%) stated that women employees were paid less.

In an ILO study in Peru, the working conditions for women were found not to be very favourable (Van Empel, 1999). Women were paid on an average 20% less than men for the same jobs. Besides, discrimination existed against married women or those who had children. If women were hired, single women were usually preferred because they could work longer hours since they did not have domestic responsibilities and did not mean any additional cost for the enterprise.

There are important differences in what men and women value in a job. Respondents rated in Canada in the Changing Employment Relationships Survey (CPRN-Ekos) various job characteristics on a scale (Hughes, Lowe, and Schellenberg, 2003).

In Figure 11, non-monetary aspects of employment were highly rated by women in comparison to men. A larger share of women than men placed a high value on issues of respect, communication, recognition, work-family balance and co-worker relations. The analysis was limited to paid employees for more accurate comparisons between women and men than in the case of self-employed individuals.
Female workers in the Philippines did not have training opportunities (30% of female employers), as opposed to having the same number of opportunities (15%) with the men employees. Interestingly in Jordan, the ILO found that more female workers (26%) acquired skills, with training cost covered by the employers for 31.6% female workers.

3.7 Representation. MSE workers in developing countries are mostly not represented in collective bargaining and industrial relations. Transient nature of employment and informal arrangements (without a written contract) of recruitment for work discourages organizing of the informal workers in the MSEs.

However without the representation, JQ is neglected and transition to formality is slowed. The ILO has been currently examining the country cases in organizing the informal workers. Some TUs (trade unions) are engaged in combining elements of basic protection in the membership with the TUs.

In Uganda, the ILO (JQ Surveys 2001-03) found that only 5% of the employees were currently members of a union as 69% of the employees due to lack of awareness, while 23% do not see the benefits associated with joining a union.
In Peru, none of the workers have union membership whereas almost half (48%) the employers belong to trade unions. Most (88%) of the workers in the Philippines were not members of any other organization because they did not recognise the benefits of joining the TUs. Majority (65%) of the workers however pointed out that their employers would not object to their joining other forms of organization apart from unions.

4.0 What is the cost of JQ? Enterprises have mostly perceived providing workers’ protection as costs to businesses, scarcely realizing that skilled and experienced workers remain the competitive edge for the enterprises in a globalized world. There are several myths surrounding JQ (adapted from ILO, SEED JQ Brochure), some of whom are stated as the following:

a. Improving working conditions can be costly to the enterprises.

b. Before attending to JQ, growth has to occur in the enterprises.

c. Labour is considered as one of the costs.

d. Revenue and profitability are critical for business survival and success.

e. Labour market forces determine the demand for improving JQ.

The above myths beg some questions: Are costs to JQ so prohibitive that enough as economically precarious enterprises can not contemplate improving JQ? Can the incremental improvement yield benefits to the enterprises? Most of the costs for improving JQ arise from having the enterprises to bear following expenses:

i. improvements in working conditions;

ii. making workplace safe for the workers from the hazards of safety and health;

iii. employers’ contribution to social security and skills training; and

iv. higher productivity and quality of products and services.

Improvements in JQ may entail indirect costs (i.e., leaves, written contracts, etc.) and direct costs (i.e., overtime pay, child care, etc.). Some of the costs can be incremental in the nature while other costs can be both capital investment and recurrent. There may also be direct and indirect longer-term benefits to the enterprises from improvements in JQ. How to balance the costs and benefits while keeping the business viable is the critical issue.

Informality, lack of awareness and costs can be impediments to improvements in the working conditions. In El Salvador (ILO JQ Surveys, 2001-03), the main reason for not having taken any
concrete action against identified problems in health and safety conditions was stated as the lack of money (79%).

When asked in Peru why improvements had not been made, the entrepreneurs and the workers stated the cost/resource aspect as the main reason. The entrepreneur, in particular, stressed the fact that the premises were temporary, and that this was a very important factor to consider when designing any type of program for improvements.

In India, about 82 percent of the employers and 72 percent of the workers have to bear their medical costs on their own or with support from family. In case of workers, 16 percent were reimbursed the medical costs (for self) by the employer, while another 4 percent were covered under the employee insurance scheme (ESI).

In Jordan, the Social Security Corp. (SSC) has carried out a study on work injuries, which had shown an alarmingly rising rates reaching 12,000 in 2000 with a total cost of JD 5.4 million. The cumulative number of registered work injuries in SSC was 161,000 until the end of 2000. The total cost was estimated at JD 48 million.

Most employers indicated that the main problems they had with to the social security system were:

- high costs and the fines for the delayed payment;
- exclusion of the unregistered enterprises from the social security system; and
- higher contribution of the employers than the workers.

Although no levels of dissatisfaction were reflected in Panama, social security was the first priority for the workers, along with job stability. Most workers considered social security to be the employers’ responsibility, although half were insured. They also stated as priorities coverage of the risks of accidents at the work, retirement benefits, and the social security benefits for the dependents.

In comparing various European and North American countries in Figure 12 below on employer sponsored skills training, Finland (55%) and US (53%) workers received the highest training sponsored by the employers. Lowest incidences of employer-sponsored training were in Portugal and Greece with little over 12% and around 14% respectively.
Figure 12: Comparison of skills training paid by employers (%workers)


A high level of on-line respondents (http://www.jobquality.ca/) in Canada also indicated that they have received employer sponsored training in the past 12 months. The higher incidence of employer-sponsored training by respondents is likely explained by the high education levels reported by the website visitors.

The employers in Jordan were interested in attending training courses and sending their workers to such courses but cost seemed to be the main constraint. The employers also wanted the courses to be held in areas close to the work place, especially industrial areas.

The main obstacle stopping the enterprises in Jordan (ILO JQ Surveys 2001-03) in upgrading the quality of their products and services was lack of funds (48.6%) as well as access to markets (27%).
Surprisingly 54% of the enterprises owners did not feel there was a need to improve productivity of their businesses.

The main reason why proprietors have not taken actions to improve quality and productivity issues in Panama was due to the lack of funds, followed by the lack of time. Figure 13 below shows the employers’ perception in Panama for improving enterprise quality and productivity. The lack of funds and time mostly relate to the acquisition of efficient equipment and tools and in providing training to the workers in achieving better efficiency and productivity.

![Figure 13: Improving Product Quality & Productivity in Panama](image)

**Source:** ILO: A study on working conditions in MSEs in Panama by Promicro and Fundes Panama for SEED Geneva, 2001.

### 5.0 What is the Impact?[^18]

What do we examine for ascertaining the impact of job quality improvement remains the main challenge? Ultimate test has to be enterprise growth due to JQ improvement, but the growth is influenced by many variables, even the narrowly defined labour productivity! There have several attempts of assessing the impacts in the ILO programmes with mixed results.

In 2003, a social marketing campaign for better job quality was conducted in the Accra/Tema area of Ghana. Ninety percent of the around 300,000 MSE workers and employers have been found motivated to make improvements at their workplace. Changes were noted with regard to light, ventilation and tidiness and cleanliness.
**Case Box 1: Impact in Cluster development:**

Moradabad, a major centre of northern Indian brassware production and export, comprises of an estimated 25,000 small and household units along with larger manufacturers and exporters.

The objectives of the ILO’s interventions in Moradabad (started in 2001) included training small and household workshops on business practices and working environment.

The ILO programme also encouraged organization of self-help groups, facilitated interaction among the cascading subcontractors for enhancing understanding of the linkages in the supply chain, supported the capability among the organizations supporting the cluster and initiated policy discussions among the State policy makers.

Twenty Self Help Groups (SHGs - four men’s and rest women’s groups) were formed for collective actions such as common production and sale. Sixty-two small brassware producers benefited from training programmes and reported improved productivity and incomes.

**Sources:** ILO: Various assessments and reports on Moradabad Brassware Programme, SRO New Delhi, 2003-04.

As a result of training 39 entrepreneurs in Zimbabwe, over half of the participants were found in 2001 to be implementing action plans. An assessment of the ILO’s SIYB programme in Vietnam was carried out in the year 2000 with workshops for 20 business owners examining its impact on job quality in five enterprises (ILO, 2000). Some of the businesses were reported to have witnessed rise in productivity and sales. Due to short period for implementing the action plans though, participant businesses had not achieved desired results although most had taken some actions to implement their action plans.
Using data sets from the World Bank’s RPED, the ILO interviewed 200 manufacturing firms in Tanzania in 1993-96 comparing JQ in eight African countries (ILO, 2002a). The study detected linkage between higher social protection and growth of the larger firms in Africa.

The ILO carried out a study in Trinidad and Tobago assessing the impact of its JQ programme (I-Web and MP), under which 38 entrepreneurs were trained during 2001-02. The changes in output and productivity are given in Table 3 below. Evidently, productivity did go up with the JQ treatment, but it was not certain whether it was significant. Labour productivity seemed to have almost doubled, although curiously, both monthly output and profit seemed to have declined.

Table 3: Changes in Business Indicators in Trinidad and Tobago
(monthly output, productivity and monthly profit)  % mean change

<table>
<thead>
<tr>
<th>Groups</th>
<th>Productivity</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Output</td>
<td>Labour</td>
<td>Machine</td>
<td>Material</td>
<td>Profit</td>
<td></td>
</tr>
<tr>
<td>Control group</td>
<td>8.70</td>
<td>11.17</td>
<td>-1.43</td>
<td>-.96</td>
<td>15.77</td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>2.15</td>
<td>20.19</td>
<td>41.50</td>
<td>-.22</td>
<td>-55.46</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.43</td>
<td>15.44</td>
<td>31.59</td>
<td>-.68</td>
<td>-20.71</td>
<td></td>
</tr>
</tbody>
</table>


Table 4 provides the means of the percentage changes of the five variables recorded for employment in Trinidad and Tobago. The only gain for the treatment group was slight change in the number of temporary workers, but the mean percentage change was actually a negative (-25.01%).
Table 4: Changes in Employment Indicators in Trinidad and Tobago

(\% mean change)

<table>
<thead>
<tr>
<th>Workers</th>
<th>Groups</th>
<th>Hrs. Worked</th>
<th>No.</th>
<th>Permanently</th>
<th>Temporarily</th>
<th>Casually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>-5.84</td>
<td>-8.65</td>
<td>11.15</td>
<td>-61.11</td>
<td>-50.00</td>
<td></td>
</tr>
<tr>
<td>Treatment group</td>
<td>-12.76</td>
<td>-14.24</td>
<td>1.05</td>
<td>-25.01</td>
<td>-78.57</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-9.39</td>
<td>-11.44</td>
<td>6.10</td>
<td>-45.31</td>
<td>-72.22</td>
<td></td>
</tr>
</tbody>
</table>


Fifteen business owners prepared action plans in Trinidad and Tobago. Classification of 58 action plans revealed that 22.4\% of the plans revolved around making changes to the physical work environment while over 10\% of the action plans involved making improvements to each of the following areas - record keeping, marketing and the business image.

Of the 58 action plans, 43.1\% were completed, 24.1\% were partially fulfilled or on going and the rest remained unfulfilled. There were 8 businesses experienced gains in the monthly profit with the change in employment by 4.8\%. Approximately 46\% of the subjects in the control group experienced improvements in working conditions while 35.3\% of the subjects in the experimental group experienced improvements.

In addition, interventions led to at least a 10\% enhancement in the physical work environment, marketing strategies and employment conditions of the workers. One hundred percent of the control group and 83.3\% of the experimental group gave improved shop layout as the reason for improvement in work environment.

Table 5 below provides the assessment of the workers regarding the improvement in the working environment in Trinidad and Tobago. Evidently, improvement was noticed by the majority (64.7\%) of the workers in the experimental group.
3.70 Conclusion.

The discussion of findings above can be summarized as the following:

i. **Differences in JQ.** There has been a vast difference between developed and developing countries as exemplified by the European and North American databases as well as ILO studies. Whereas wage and autonomy issues have assumed greater importance in developed countries, basic standards of working conditions and social protection are still very important for the workers in the developing countries. JQ seemed to have been affected by the liberal public policies of the states in Europe. But except for Denmark and Sweden among the Nordic countries, public policies have not prevented lowering of JQ in countries, like France, Germany and the UK. JQ in the US has also consistently dropped during the period of 2001 and 2004.

ii. **Job Security.** Sense of job security arise from the written contract and well laid down termination procedures. ILO surveys found that overwhelming majority of the workers did not have a written employment contract.

*Workers in Europe and North America felt lot more secured in the job with the termination procedures and written contract. However, fall in job security has been observed even in advanced countries as well.*

iii. **Safety and Health Risks.** The main causes of accidents in some countries were reported to be due to misuse of tools, equipment and work methods and to human error, whereas in other countries unsafe conditions or improper protection were also indicated as the main reason.

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved</td>
<td>64.7%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Stayed the same</td>
<td>29.4%</td>
<td>52.4%</td>
</tr>
<tr>
<td>Deteriorated</td>
<td>5.9%</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** ILO: Impact study of JQ programme in Trinidad and Tobago for SEED Geneva, 2001-02.
Remarkably, lack of awareness of health and safety concerns of most employers and workers seem to have contributed to the occurrence of work-related health problems. Most of the workers and employers felt no action was needed to reduce the environmental hazards caused by business operations.

iv. **Social protection.** ILO studies found that most of the workers were not contributing to disability insurance or pension schemes. Consequently, they did not expect to receive any incomes from social security in cases of injuries and death.

*It seems that lack of awareness and historical absence of confidence in the social security system are really related to literacy and governance issues.*

v. **Minimum wage and overtime.** With variations for enterprise size and gender of the workers among the countries, wages in most developing countries were below the set minimum wage (ILO studies). Almost a third up to the half of the workers were not paid overtime either. Spain and the UK have been found to work excessive hours beyond stipulated hours in the week.

vi. **Skills development.** Nordic countries in comparison to other developed countries had the highest levels of skill match with the job requirements. In developed countries, employers often paid the training costs.

Most workers in the countries the ILO surveyed had on-the-job learning of the skills. Major reason for the workers not being able to access skills is due to absence of opportunity and awareness rather than affordability. Most workers paid their own training costs and only a smaller percentage received the training free of charge.

vii. **Equality at work.** ILO studies have found that women experience worse in terms of pay and working conditions, excepting those countries that have addressed gender issues to a great extent (i.e., Canada) or in the countries with matriarchal society (i.e., the Philippines).

viii. **Representation.** Most of the workers in the MSEs are not represented by trade unions.

Transient nature of employment and informal arrangements at work has discouraged organizing of the informal workers in the MSEs.
5.1 Cost and Impact of JQ. There are myths and reality about the costs and impact of JQ as discussed above. Direct and indirect costs impact the JQ while benefits from improvements may or may not be visible.

Most of the costs for improving JQ, as documented, arise from having the enterprises to bear following expenses: a) improvements in working conditions; b) making workplace safe for the workers from the hazards of safety and health; and c) employers’ contribution to social security and skills training.

Informality, lack of awareness and costs has been key determinant to improvements in the working conditions. Employers and the workers indicate the cost/resource as the main reason for not being to address the JQ concerns.

The ILO has carried out several country level impact assessments without definitive conclusions on the following issues requiring the answers:

i. Does higher Job Quality (JQ) lead to higher productivity and income, particularly among the MSEs?

ii. How much public policy and other interventions result in good business practices?

iii. Can incremental improvements eventually lead towards the transformation?

iv. Can enterprise growth and workers’ protection improve simultaneously, reinforcing each other?

The author believes that legal and moral arguments have to be supplemented with business interests of the enterprises. There has been indication in the ILO study in Africa that better social protection in larger businesses has sustained their growth. Further empirical evidence may be required to provide casual link between business success and JQ improvement.

The issue of linking JQ to higher productivity and income can well motivate the enterprises to improve JQ. The public policy has to provide the stimulus for such motivation, as exemplified in Nordic countries.

1 The eight fundamental conventions are: Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); Right to Organize and Collective Bargaining Convention, 1949 (No. 98); Forced Labour Convention, 1930 (No. 29), Abolition of Forced Labour Convention, 1957 (No. 105); the Equal Remuneration Convention, 1951 (No. 100);
Among other Conventions, prominent ones would be the Social Security (Minimum Standards) Convention 1952 (No. 102), the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), and the Protection of Wages Convention, 1949 (No. 95).


Examples of these include: The Fresno County Workforce Investment Board limits on-the-job training contracts to “platinum” employers. (See http://www.wowonline.org/wow/seven/practice4/cs1/default.asp.)

The Northwest Area Foundation has developed a job metric for use by community development organizations to rate the jobs that would be created by a loan or other investment. (See http://jobmetric.nwaf.org/index.php.)

Other organizations have developed industry specific indicators of job quality, such as the one developed by the Paraprofessional Healthcare Institute for direct care workers. (See http://www.paraprofessional.org/publications/Nine_Essential_Elements.pdf.)


Produced by the European Foundation for the Improvement of Living and Working Conditions (Eurofound).

AMECO is the annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs.


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Abstract:

‘Roles of occupational health teams in facilitating participatory risk management in small-scale workplaces’

by Toru Yoshikawa, Kazutaka Kogi & Kazuhiro Sakai

Institute for Science of Labour, Kawasaki, Japan

Background: Roles of occupational health teams comprising occupational health professionals and key persons among employers and workers in participatory risk assessment in small-scale workplaces in manufacturing and services were examined.

Method: Participatory workshops for implementing occupational risk management were organized in small-sized workplaces in bookbinding, dental care and hairdressing. In each type of workplaces, an occupational health team (OH team) including key persons of relevant trade associations developed action-oriented toolkits, including action checklists and improvement guides, and supported group work steps in the workshops. Each team emphasized local good practices in each work situation. The effectiveness of the toolkits and the support functions of the OH teams were assessed.

Results: Case 1: Bookbinding industry: The OH team at the Central Tokyo Regional Occupational Health Services Center evaluated working conditions and collected good examples to reduce occupational health and injury risks at five small-scale bookbinding enterprises in downtown Tokyo. The OH team developed practical training materials for occupational physicians in collaboration with the bookbinding trade association. The focus on low-cost ideas applying ergonomic rules was useful in facilitating improvement actions in these enterprises. Information materials on good practices and practical advice to be given are effective for direct use by the occupational physicians.

Case 2: Dental clinics: The Regional Dentist Association organized a participatory training workshop for improving working conditions and health for workers working at dental clinics. This workshop made use of good practices for reducing health risks among dentists, dental technicians and other staff members at three local dental clinics. A 30-item checklist was developed and used for risk management in dental care work.

Case 3: Hairdressing trade association: The secretariat of the administrative section of the Tokyo Hairdressing Trade Association planned to evaluate working condition and risks of low back pain and skin eczema among hairdressing shops. The OH team including occupational health experts and the representatives of the Association investigated three shops and their workers using conventional hair shampoo tables and back-style shampoo tables. The OH team developed a manual including good examples collected at hairdressing shops and risk assessment checkpoints. A participatory workshop organized by the OH team was useful for sharing good practices.

Conclusion: It is suggested to develop and use participatory action-oriented toolkits for facilitating risk management with the active participation of employers and workers. It is important to adjust the toolkits to each local situation on the basis of existing good practices. Collaboration through
OH teams involving trade associations is useful for developing these training toolkits and organizing participatory workshops effectively.
Roles of occupational health teams in facilitating participatory risk management in small-scale workplaces

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Key word
Occupational health teams, participatory risk management, book-binding industry, dental care industry, hair-dressing industry, small-scale workplaces

Abstract

Background: Roles of occupational health teams comprising occupational health professionals and key persons among employers and workers in participatory risk assessment in small-scale workplaces in manufacturing and services were examined. Method: Participatory workshops for implementing occupational risk management were organized in small-sized workplaces in bookbinding, dental care and hairdressing. In each type of workplaces, an occupational health team (OH team) including key persons of relevant trade associations developed action-oriented toolkits, including action checklists and improvement guides, and supported group work steps in the workshops. Each team emphasized local good practices in each work situation. The effectiveness of the toolkits and the support functions of the OH teams were assessed. Results: Case 1: Bookbinding industry: The OH team at the Central Tokyo Regional Occupational Health Services Center evaluated working conditions and collected good examples to reduce occupational health and injury risks at five small-scale bookbinding enterprises in downtown Tokyo. The OH team developed practical training materials for occupational physicians in collaboration with the bookbinding trade association. The focus on low-cost ideas applying ergonomic rules was useful in facilitating improvement actions in these enterprises. Information materials on good practices and practical advice to be given are effective for direct use by the occupational physicians. Case 2: Dental clinics: The Regional Dentist Association organized a participatory training workshop for improving working conditions and health for workers working at dental clinics. This workshop made use of good practices for reducing health risks among dentists, dental technicians and other staff members.
at three local dental clinics. A 30-item checklist was developed and used for risk management in dental care work. Case 3: Hairdressing trade association: The secretariat of the administrative section of the Tokyo Hairdressing Trade Association planned to evaluate working condition and risks of low back pain and skin eczema among hairdressing shops. The OH team including occupational health experts and the representatives of the Association investigated three shops and their workers using conventional hair shampoo tables and back-style shampoo tables. The OH team developed a manual including good examples collected at hairdressing shops and risk assessment checkpoints. A participatory workshop organized by the OH team was useful for sharing good practices. **Conclusion:** It is suggested to develop and use participatory action-oriented toolkits for facilitating risk management with the active participation of employers and workers. It is important to adjust the toolkits to each local situation on the basis of existing good practices. Collaboration through OH teams involving trade associations is useful for developing these training toolkits and organizing participatory workshops effectively.

**Background**

The use of action-oriented toolkits comprising low-cost action checklists and group work guides is commonly helpful in small-scale workplaces\(^1\text{-2}\). These toolkits for applying corresponding participatory steps are more successfully utilized when the trainers supported (a) building on local good practice, (b) focusing on a range of basic ergonomics principles, and (c) stepwise progress through feedback of achievements. Experiences in using these toolkits demonstrate that a local network of trainers trained in the use of locally adjusted toolkits is vital for facilitating effective improvements in different small workplaces\(^1\). Keys to the sustainable action in small-scale industries are to mobilize the industry-wise network by trade associations, to take an output-oriented strategy based on interactive group work and to facilitate the effective use of support tools such as low-cost action checklists and group work methods\(^2\).

Employers’ awareness of the relationship between good management and occupational health is essential to the implementation of occupational health and safety practices in small-scale enterprises\(^3\). A recent review of occupational health services for small-scaled enterprises show that this awareness is facilitated by emphasizing simple and low-cost solutions and by sharing the achievements by local workplaces. It is thus important to develop intervention strategies for small enterprises that can encourage the stepwise progress towards effective risk management involving
many intermediaries. It is needed to clarify the roles of occupational health teams in facilitating participatory risk management in small-scale workplaces.

Thus, this study examined roles of occupational health teams comprising occupational health professionals and key persons among employers and workers in participatory risk assessment in small-scale workplaces. The study reviewed three recent participatory workplace improvement programs for small-sized workplaces in manufacturing and services in Japan.

Methods
Participatory workshops for implementing occupational risk management were organized for small-sized workplaces in bookbinding, dental care and hairdressing. In each type of workplaces, an occupational health team (OH team) including key persons of relevant trade associations developed action-oriented toolkits, including action checklists and improvement guides, and supported group work steps in the workshops. Each team emphasized local good practices in each work situation. The effectiveness of the toolkits and the support functions of the OH teams were assessed.

Results
Case 1: Bookbinding industry:
The OH team at the Central Tokyo Regional Occupational Health Cervices Center evaluated working conditions and collected good examples to reduce occupational health and injury risks at five small-scale bookbinding enterprises in downtown Tokyo.

The purpose of our collaborative research in bookbinding enterprises were: to evaluate working conditions and health of workers at small-scale enterprises (SSEs) in Tokyo; to develop practical training materials for occupational physicians engaged in occupational health services for small enterprises employing less than 50 workers at the Central Tokyo Regional Occupational Health Cervices Center (CTROHCC) in collaboration with book binding small-scale enterprises. These training materials were designed: to strengthen the CTROHCC advisory functions: to provide information materials for facilitating health-related workplace improvements in SSEs.
A questionnaire survey about safety and health book binding small-scale enterprises was conducted for workers who participated in health promotion workshops organized by CTROHCC in 2003. Of 106 workers, valid replies were collected from sixty-nine workers (male 56, female 9, unknown 1). The average age was 57.4±7.4. The size of the enterprises was generally small: 1-9 workers 63, 10-49 workers 4, over 50 workers 2. About working conditions, the frequently mentioned items included long standing postures (82.6%), time pressure (73.9%), handling heavy materials (63.9%) and monotonous work (75.8%). Other frequently mentioned items were overtime work (53.6%), noisy work environment (53.6%), unsafe machine operations (34.5%), unnatural working postures (33.3%), etc. Individual assessment results about needs requiring immediate actions were inserting short breaks (71.4%), control of dust and tobacco smoke (72.1%), reducing noise at the workplace (67.5%), improving time pressure at work (58.3%), providing resting corners (58.3%), etc. Next step was to collect good examples. The OH team collected good practices that could contribute to securing safety and health at the book-binding industry. More than 200 good examples were collected. Finally, the OH team developed practical training materials for occupational physicians in collaboration with the bookbinding trade association. Figure 1 shows a scene for selecting good example photos by the OH team including an occupational physician contracting with the bookbinding enterprises. The focus on low-cost ideas applying ergonomic rules was useful in facilitating improvement actions in these enterprises. Information materials on good practices and practical advice to be given are effective for direct use by the occupational physicians.

Case 2: Dental clinics:
The Regional Dentist Association organized a participatory training workshop for improving working conditions and health of workers working at dental clinics. This workshop made use of good practices for reducing health risks among dentists, dental technicians and other staff members at three
local dental clinics. Representative members of the Regional Dentist Association mutually visited their clinics, and collected good practices in occupational safety and health of the staff members of the dental clinics. These visits had the role of exchanging good practices even though they had a competitive situation among the clinic managements. Finally, a 30-item checklist was developed (Table 1) and used for risk management in dental care work.

Table 1. Five categories and a 30-item checklist for risk management in dental care work.

<table>
<thead>
<tr>
<th>Areas</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Materials handling and storage</td>
<td>Layout for stock yard, multi-shelves, small containers, labels, supply carts, clear mark., etc.</td>
</tr>
<tr>
<td>B. Workstations and work methods</td>
<td>Better workstations, adjustable chair both for patient and dental care worker, clear display, avoiding mistakes, etc.</td>
</tr>
<tr>
<td>C. Work environment</td>
<td>lighting, dust control, amenity, standard precaution in infection control, maintenance for personal protective equipment, etc.</td>
</tr>
<tr>
<td>D. Welfare facilities and infection control</td>
<td>Wheelchair sites, railings, resting/napping rooms, securing leaves, breaks, communication of staff members, consultation room, etc.</td>
</tr>
<tr>
<td>E. Work organization and career development</td>
<td>Individual schedules, task review, short conferences, communication, confirmation tags, No-overtime day, shift schedule, days off, etc.</td>
</tr>
</tbody>
</table>

Case 3: Hairdressing trade association:

The secretariat of the administrative section of the Tokyo Hairdressing Trade Association planned to evaluate working conditions and risks of low back pain and skin eczema among hairdressing shops. The OH team including occupational health experts and the representatives of the Association investigated three shops and their workers using conventional hair shampoo tables and back-style shampoo tables. The joint investment results suggested that the use of a new hair-washing stand allowing the hairdressers to stand at the back of a client could reduced the workload remarkably, thus reducing the risk of musculoskeletal disorders at shampooing work. Figure 2 shows pictures that could facilitate good working postures depending on shampoo tables.
According to the results, the OH team developed a manual including good examples collected at hairdressing shops and risk assessment checkpoints. A participatory workshop organized by the OH team was useful for sharing good practices.

Discussion
This study examined roles of occupational health teams how they developed toolkits in participatory risk assessment in small-scale workplaces. Three examples showed practical means of facilitating the participatory steps taken in workplace improvement programs in the small workplaces. These examples represented three features of good practices found in SSEs; (a) strengthening initiative for team building steps, (b) building on local good practice learning from them, (c) focusing on developing practical tools such as action-checklists and locally adjusted group work methods.

These programs commonly organized by partners of a local industry network for small enterprises. The OH team included an occupational physician, an occupational health nurse, a health secretary, as well as managers and worker representatives who acted as key persons for developing these tools. Building the network among stake holders who wanted to support workers in SSEs was seen in the three cases. Case 3 showed that focusing on effectiveness of workload reduction depending on the type of shampoo table was clearly useful for starting improvement actions by the hairdressing industry and contributed much to raising awareness of the control of low back pain for hair dressers.

The process of developing action-oriented toolkits comprising low-cost action checklists and group work guides was common in all these examples. Each case collected good examples and developed action check lists according to these good examples. The results also suggested that a local network

<table>
<thead>
<tr>
<th>Standing on the side of a client</th>
<th>Standing at the back of a client</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fig. 2 Working posture of a hairdresser working at two different kinds of shampoo tables</td>
<td></td>
</tr>
</tbody>
</table>
of OH team members in the use of locally adjusted toolkits was vital for facilitating effective improvements in different small workplaces.

**Conclusion**

This study suggested the effectiveness of developing and using participatory action-oriented toolkits for facilitating risk management in small-scale workplaces with the active participation of employers and workers. It is important to adjust the toolkits to each local situation on the basis of existing good practices. Collaboration through OH teams involving trade associations is useful for developing these training toolkits and organizing participatory workshops effectively.

**References**


Abstract:

‘Recycling of identity: The symbolic rehabilitation of “human refuse”’

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The unemployment crisis has resulted in the social exclusion of workers seeking to survive from (generally precarious) informal activities. Trash picking on the streets has been the option for 10,000 people in Fortaleza. Driven by necessity and a false environmentalist discourse, these “human residues” resort to trash picking as a strategy for inclusion in society. Each of these trash pickers is linked to a small business, operating through a “deposit”, to which he is obliged to sell his pickings. The hazardous and unhealthful task of going through the city streets searching for trash to recycle is aggravated by the obligation to sell everything to a single company at a price established by it. One of these small enterprises “buys” trash from pickers that are ex-cons and have not yet found a place in their return to society.

The ethnographic method was employed to study the work routine at this trash deposit, based on observation and semi-structured interviews. The stories of precariousness and marginalization of these people, recycled from the sentences they served, indicates a strong identification with what they pick through: they also feel like the refuse of society, especially when in their travels through the streets they feel people’s prejudice regarding their poverty and need to engage in such an activity. Still trying to reconstruct their identities as workers, they react by committing small thefts of pedestrians and residences, demonstrating the fragility of the system that punished them for their past transgressions. This demonstrates the inefficacy of this activity for those trying to re(constuct) their identity as workers in the contemporary capitalist system. Indeed, the nature of trash picking reveals characteristics of false autonomy, extreme marginalization, precariousness and exploitation, as well as accentuating the feeling of exclusion and revolt, eroding their identities and reinforcing their condition of being the dregs of society.
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ABSTRACT

The unemployment crisis has resulted in the social exclusion of workers. Trash picking on the streets as an informal activities has been the option for 10,000 people in Fortaleza. Driven by a false environmentalist discourse, these “human residues” resort to trash picking as a strategy for inclusion in society, each of these trash pickers is linked to a small business, operating through a “deposit”, to which he is obliged to sell his pickings. One of these small enterprises “buys” trash from ex-cons who is trying to be included into society. The ethnographic method was employed based on observation and semi-structured interviews. The results indicates a strong identification with what they pick through: they also feel like the refuse of society. The inefficacy of this activity for those trying to re(construct) their identity as workers in the contemporary capitalist system. Indeed, the nature of work reveals characteristics of false autonomy, extreme marginalization, precariousness and exploitation, as well as accentuating the feeling of exclusion and revolt, eroding their identities and reinforcing their condition of being the dregs of society.

Key words:
Informal activities, Trash pickers, identities, precariousness, ex-cons,

1. INTRODUCTION

“The old people used to say that there would be a time when the human being would pull a cart like an animal.
Then, that’s what you see around, the guys pulling the carts all over the place.”
(Association garbage collector, 53 years old)

The crisis in the formal work intensifies the practice of some informal occupations that challenge the human dignity, such as collecting recyclable garbage on the streets of big cities. These “human wastes” are victims of unemployment and collect garbage for surviving and for precarious inclusion.

If we consider a job as a work that is part of a formal relation of exchange and financial reward sealed by a contract, this kind of work goes beyond a mere technical relation of production and can be seen as a “privileged support of subscription in the social structure”. (SANTOS, 2000, p. 49). The job guarantees a privileged social place and when an individual does not have it, he looks for alternative ways of survival which do not usually offer them a dignified life. A present example is garbage collection: the huge quantities of waste produced and rejected by our society in time of disposability. Thus, being a formal or an informal worker enables social insertion and reinforces social and individual identities through some activities and certain social relations that compose the “way of being” (Sansaulieu, 1988) that qualify the pairs as being equals, even not considering the individual specific differences.

The emergence of recycling industries, based on the idea of garbage as a potential profit generator and favored by the growing environmentalist discourse, enabled the increase of an informal work category. This category was inexpressive few years ago and is made by workers who were rejected by the capital logic: the garbage collector on the streets of urban centers who work informally and sell what they produce through an intermediary person or in an associative way.

The present research aims at understanding the work of a garbage collector, considering two different situations: the ones connected to depots (also called loose) and the ones organized in an associative way. It also aims at identifying the work conditions and organization and at discussing the impacts of work precarization in the activity of garbage collection and its repercussions in forming the identity of these workers.

The research has a qualitative nature and was empirically set out in a depot of recycling materials and at a collectors’ association placed at a peripheral area in the city of Fortaleza. Both places were submitted to ethnographic research, through photographic registration, semi-structured interviews with garbage collectors from both places as well as monitoring the workday of a garbage collector.
source of the documental study was the *Diagnosis of the socio-economic and cultural situation of recycling garbage collectors in Fortaleza*, which was accomplished by the Municipality (2006).

The choice of the qualitative methodological tools was based on the assumption that the garbage collector universe is very complex and needs a closer approach to the individuals and to their workplace, which would permit an analysis in terms of meanings, motivations, values nonnoticeable in a merely objective analysis. (MINAYO, 2000).

It is important to mention the great number of former convicts who work as loose collectors. Because they come from a prison system, these collectors cannot be included in the world of work, so they try to restart their social inclusion in a stigmatized and precarious work relation which, when compared to the depot association, show a frequent conflict relation, where the owners use their power to take advantage of the poor and needy collectors.

2. VOLATILE WORK IN A LIQUID MODERNITY

The work in the contemporary society was elevated to a privileged level in our value system and is fundamentally important for building the individuals’ social identity. Work, more than surviving, as Marx (1980) already mentioned, has a founding feature to the human sociability. The German thinker inaugurated a scientific discussion of work that goes beyond its immediate concreteness, presenting it as a way of building a *sui generis* component among social beings: dignity. Work not only feeds the body, materially and individually, but is a way of inserting the individual as a social being. Marx (1978, p 148) understands work as a dialectical movement, and as man acts on things he also modifies “his own nature”.

Under the analysis of Weber (2005), work was understood in some cultures as an instrument of asceticism, leading to the development of an economic model founded on national work, understood as vocation, in a way that “the view of work as vocation became a characteristic of the modern worker” (WEBER, 2005, p. 133).

Thus, work subscribes the individual in the world and gives him a social place. We can go beyond and say that work means, to the worker, a way of affirming his identity through individual assignments related to accomplishing a task. This characteristic is highlighted by Forrester (1997) when he affirms that “work is structuring and structured in the contemporary capitalism, as a kind of *habitus* in the sense mentioned by Bourdieu”.

In fact, the contact with the recycling garbage collectors permitted the realization of the importance of work, which goes beyond a way of survival, also considering it as an activity that leads to
citizenship. So, if we consider the concept of citizenship thought by Arendt (1995) we can affirm that, in the contemporary society, work assures the insertion of the individual who works in a state of juridical support – even if potentially – considering that its referred centrality in the social world gives it an essential position in the social construct that guarantees the “right to have rights” (ARENDT, 1995, p. 22). According to this author, the importance of the Homo Faber in the contemporary world leads to the appreciation of the role of the worker in constituting the “being”.

Thus, work is fundamental for accessing citizenship, opposing to the marginalizing effect of laziness – which is forced, many times. This is noticeable when the collectors speak: “I’d rather be here collecting garbage than be a tramp or a robber. Because this is work!” (Garbage collector, 38 years old). It is important to highlight that laziness has been repressed with the injunction of severe comminations to the transgressors of this behavior which is considered as a penal one in European legislations of the XVIII century. In disagreement with history, even nowadays laziness is considered illicit in Brazil, not as a crime anymore, but as a penal transgression that can be punished according to the Law number 3.688 of 1941.

Even though work has been highlighted as a social value, it has been challenged by the doubts that come with the liquid modernity (BAUMAN, 2001), which question the security of the work occupations and the certainty of a professional career. In a moderate acid way, Bauman (2005) discusses the present moment all over the world, in which many people lose their jobs, there is less work to everyone and, as a consequence, we have human waste. According to this author, this waste is not a consequence of unemployment in the old sense, in which unemployment was a way to create a human reserve; now, forced unemployment does not offer any perspectives. The author says that

The producer’s society unemployed (including the ones who are temporarily “away from the production line”) may be miserable, but their place in the society was safe and unquestionable. In the production battlefront, who would deny the need for strong reserve unities ready for melee when necessary? (Idem, p. 22)

Society seemed to rest in certainties with which we cannot count on anymore. If good training could assure a good occupation, the present moment points out a structural questioning to the employment model used during the XX century. In the present flow of social life, what was a duty and a right becomes almost like a privilege.
The present context shows a dim horizon concerning the world of work. According to the OIT (work international organization), even though we have grown economically in the last years, the rate of unemployment is raising all over the world. The 2006 OIT report shows that the economic growth in the last decade was more reflected on the production increase than on jobs increase. Productivity increased 26% while the number of jobs increased only 16.6% (UOL NOTÍCIAS, 2007). The previsions for 2009 are not very positive. To OIT, the global economic crisis can produce a considerable increase in the number of people who will be in the unemployment lines, poor workers and workers with vulnerable jobs. (OIT, 2009).

The OIT prevision is confirmed in Brazil, based on data searched by IBGE concerning the increase of under unemployment. The cause would be the worsening of the economic crisis and its consequences in the epicenter periphery.

The economic crisis pushed, between October 2008 and last January, 88,000 people to under employment in the six main metropolitan regions of the country, forming a group of 709,000 under employed people, according to IBGE. […] Between October and January, under employment raised 14.2%. (SOARES, 2009)

We need to recognize that the replacement of productive rigidity with flexibility after the 1973 crisis, aggravated by the petrol crisis, made many occupations disappear, disrupting the fordist productive paradigm and confirming what Harvey (2006) called flexible accumulation. The process of productive reorganization brought the implantation of a political and ideological system in which the State had not accomplishment and responsibility for social functions, strongly returning to a time in which the free market was more important than de individuals. This restructuring has provoked the intensification of informality and the weakening of work relations. (ALVES, 2007).

All this process seems to justify the appearing of new (or not so new) ways of precarious work as a solution for unemployment. These structure changes come together with changes on the plan of juridical protection to the social rights of workers, who are more and more fragile. This situation creates a real discomfort in a society that values production and work, but whose basic element, work, is decreasing day after day. Thus, flexibilization weakens work and, at the same time, is (ironically) a plausible solution for the work crisis.

Many individuals would rather lose their work rights than become unemployed. So, they see themselves in a situation in which they have to choose between not having a job (what means not
having a subsistence way) and have a precarious job. In cases like the collectors’, the need for survival is stronger than the many benefits a formal job can offer.

Considering the collectors in our research, many of them being former prisoners, we ask how the development of an activity, that is considered society waste, can interfere in their re-socialization and identification with the product they work with. In fact, we agree with Jaques (1996) when she says that the sociological structures influence the representations that the individuals make of themselves, as a self representation. She also highlights the association of social prestige or nonprestige to the self qualification and/or non-qualification, based on specificities which are common in certain work spaces and/or professional categories.

Then, the discussion of the activity developed by the garbage collectors goes beyond mere informal work, away from work legislations and submitted to long journeys and extremely insalubrious activity. The precarious activity and work environment of collectors show the reality of a work that harms the (re)constitution of the self of the worker, since he will make his living out of society waste. They submit themselves to a precarious situation, when they are already extremely precarious.

3. THE ALCHEMY MARKET

The data analysis according to the Municipality of Fortaleza (2006), together with the field experience, shows the precarization of work as a primordial factor to the garbage collection activity, since it is an extreme alternative to someone who tried, with no success, other ways of paid jobs.

However, we cannot forget that besides the difficulties of getting inserted in the world of work, other factors influence this kind of work, such as an ideological substrate encouraged by the increasing environmental discourses – which are justified by the real environment degradation – besides the strong recycling industry.

In this sense, collecting recyclable material is the first moment of a long productive cycle and we can say that it represents the possibility of maintaining the system of global life as a way of sending back to nature what was taken from it.

Garbage production is closely associated to the strong stimulus to consumption and to the brevity of ephemeral production, consumption and waste cycles. Layrargue (2002) mentions the planned obsolescence as a stimulus to consumption and to residue production, as the products are designed with a life cycle that permits constant renovation, generating more production and new consumption.
According to data searched by IBGE (2000), Brazil daily produces 228,000 tones of residues, but only 148,000 are collected. Out of this volume, only 2,8% of the Brazilian garbage is recycled and 59% go to the garbage depots.

The perception of the human activities as being that main factor to environment degradation has raised various mobilizations as well as different understandings of this complex problem. To the companies, protecting the environment may not distract them from production and profit. Companies and economists agree that they want the ideal sustainable development. Thus, even though the environment is being considered, the raising rates must be a priority. If in the past, many companies were reluctant to adhere to the new sustainable development, they now realize the financial benefits of adhering to environmentally correct productive methods. These benefits improve the company image; an intangible good that has palpable financial repercussions. (MEIRELES & SANTOS, 2008, pp. 160-162).

The recycling technologies advanced a lot, contributing to a market that deals with lots of money. Only in Brazil, the aluminum recycling market dealt, in 2005, with R$ 1,6 billions, according to the Brazilian Association of Aluminum. (apud CEMPRE).

It is a productive process that counts on the support of raw suppliers to this rich market, consumers and residue producers. In this process, the economic interest has priority over the environment interest. So many times, as Layrargues (2002) affirms, recycling glosses its cynicism. This author denounces that the so-called policy of 3 Rs (Reduce, Reuse, Recycle) has been hegemonically valued mainly on the third aspect, recycling, making the other two less important. Then, the appreciation of recycling by the system of object production and planned obsolescence is a way of absorbing the compatible elements of the environment protection movement without abandoning (rather increasing) the logic of exaggerated production and consumption.

Even though there is a well developed recycling market in the country, which deals with lots of money, most of the material processed in the industries is collected by individuals who see in this moment of the supply chain of residue transformation an alternative, even though precarious, to their unemployment. According to data mentioned by Abreu (2001, p. 33) in a research made by UNICEF, the collectors are responsible by sending from 10% to 20% of urban solid residues to the recycling market. These workers are responsible for 90% of the material that supplies the industries in Brazil (idem, p. 34).
4. COLLECTORS: “NON-DECANTED HEROES OF MODERNITY”

The activity of collecting garbage is present all over the world and the World Bank estimates that 1% of the world urban population make their living out of the collection and selling of recyclable material, either on the streets or at the garbage depots. (BONNER, 2008, p. 7). According to a research made by UNICEF on the year 2000 (ABREU, 2001, p. 33), there are garbage collectors of recyclable materials in 3,800 Brazilian towns. The national movement of collectors of recyclable materials (MNCR) estimates that there are around 2,000,000 collectors in Brazil, but only 200,000 are part of the movement. According to another research made by the Municipality of Fortaleza (2006), there are presumably between six to eight thousands of recyclable solid residue collectors working in a city that produces around 3,000 tones of garbage a day.

Studies such as Medina’s (2005) show us that garbage collection is a phenomenon observed and studied all over the world – mainly in the peripheral countries – showing its characteristics in each specific place, such as the category organization, the population recognition, the support from the companies, among others.

This world population of workers who lead a precarious life organize themselves in two ways: selling their material to depot owners or working in associations or cooperative groups, in which the collectors get organized independently. These associated groups form a network (continentally and globally) that discusses work issues related to these men and women, making these individuals stronger and more ready to fight.

A research about the socioeconomic conditions of the collectors in the city, made by the Municipality of Fortaleza, (2006), showed the following results concerning their profile: a) low scholarity level - 95% finished the basic education and there is a reasonable percentage of illiterate – 22,6%. We can also observe that 90,9% are going to school, what is alarming since we are talking about young people. Among these, 68% affirmed they need to work because they stopped going to school; b) Concerning family income, 71,4% of the collectors answered that they are responsible for the main family income; c) High level of poverty, considering that 11,3% get food out of the garbage, what reinforces the idea that garbage collection is an alternative to the lack of survival ways.

In the mentioned research, we can notice the high number of collectors who say they became collectors because of unemployment (82,8%). This information confirms the hypothesis that says these individuals, most of the time, become collectors because of lack of jobs. In the interviews, they mention that collection is a choice made because of lack of choice:

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I looked for a job, I asked people to look for me, but nothing happened so I had to stay here. (Association collector, 44 years old)

I became a collector because there was nothing else. There is no job nowadays. So collecting was the way I found to keep living, you know. (Depot collector, 23 years old).

I dreamed to be someone in life, you know. I wanted to be a fireman, a doctor… but I had no chance, so what can I do? (Depot collector, 38 years old).

Still according to the research, 58,6% said they use the scrap dealer cart, only 16% work with their own cart and 2,5% work with the cooperative company cart. Concerning the buyer of the collected material, 91% sell it to the do depot owners or scrap dealers and only 7,9% sell it to cooperative companies or associations. These indexes can show how dependent the collectors are on the scrap dealers and depot owners since they lend them carts and apply better prices. These intermediate people, such as depot owners are needed because of accumulation of material to be sold straight to the industry or to other intermediate people. Thus, the relation with the depot owners is essential, since the collector by himself cannot gather a great amount of material. Besides, he does not have much information on the logistics of the recycling chain (MEDEIROS & MACÊDO, 2007, p. 80). The depot owners establish the prices and many times submit the collector to their dependence, since the collectors use their cart, which is considered as a status object because it is expensive. So, an authoritarian relation is established and it limits the collector to sell to other depots, being submitted to the prices and conditions imposed by the depot owner. That is why many authors who diagnose the mentioned problem (MEDEIROS & MACÊDO, 2006; WILSON et alli, 2006; MEDINA, 2005) propose the associations as an alternative to fight the dependence on the depot owner.

When asked about their personal perspectives for the future, 6,7% believe they will keep collecting recyclable materials; 51,9% answered that they want to stop collecting and have a real work. This data indicates the level of dissatisfaction of these people with their degrading work.

The figures shown by the Municipality help us to outline a profile of this category, marked by poverty, low level of scholarship, lack of work. These are people who develop a strenuous activity, traveling long distances and carrying heavy weights and suffer a kind of social stigma.
5. THE PRECARIZATION OF PRECARIOUSNESS

The ethnographic studies performed in two relevant places concerning the main forms of organization of the garbage collection work, as well as the semi-structured interviews, allowed the observance of those individuals work conditions to happen more specifically, besides verifying that the precarization process associated to garbage collection is preceded by an already precarious life condition. Thus, the analysis of the work stories of the garbage collectors from both analyzed places shows reference to their early entrance – during their childhood and adolescence - into the informal work reality, which prevented their access to school education. Early in the beginning of life, labor comes as a necessary mean of basic sustenance. The reports lead us to the association of the beginning of the collectors’ lives as premature workers to their current situation as precarious workers.

My first work occupation in life was to cut the core of carnauba trees to make ropes, to make twines. […] I was about eight years old […] then I went to work on the plantation fields. […] By that time I was already twelve years old. […] After that, I grew up and started working in family houses. […] After that I worked with lunchbox service and then I started working with recycling.
(Female Association collector, 44 years old)

It is observed that these workers had lived with precarious work condition before their experience with garbage collection, which had direct implication for their insertion in this reality. In this sense, it is interesting to realize the presence of Laves’ (2007) ideas in the matters we are focused in. The author exposes precarization as a process and precariousness as a condition, in the sociometabolic capital context. The precariousness is already a typical socio-structural characteristic of the work of those who sell workforce and are alienated from the control of the production means. This way, precarization would be a process that deepens or reassures the precarious condition of the worker, fading the obstacles subjugated by them through the twentieth century and recognized by the Welfare State.

In the professional category enclosed by this research, specially concerning ex-prisoners garbage collectors, it is possible to notice the existence of a prior precarious condition, which is characterized by a combination of factors— that have their own dynamic depending on the case— such as poverty, low scholarity, premature work, informal work experience, participation in the practice of delites and transgression. Those prior experiences were not able to provide stability or better occupations for these workers later.
The garbage collection activity comes as an alternative. Then, it is observed a continuous feeding of a cycle that begins with an unceasing precarious state, which is emphasized by the garbage collection work, leading to the precarization process associated to the activity. It is obvious that the collectors’ situation cannot be generalized. The study is only about constructing an ideal classification of the process that can be summarized, especially concerning loose collectors, by the scheme below.

\[
\text{PRECARIOUSNESS} \quad \text{COLLECTION} \quad \text{PRECARIOUSNESS}
\]

The cycle, many times, remains stable, keeping the collectors in the same material condition they were before. It can also constitute a spiral cycle, which goes down and deepens the prior precarious state or even goes up, if a decrease in the individual’s prior precarious condition happens. Looking through these facts, garbage collection can be categorized as an activity that mediates two different states of precariousness, concerning the precarization process associated to it, and that has characteristics and effects that go beyond the material sphere.

The relation between life conditions and informal work prior to garbage collection activity as the propulsion to the beginning of such form of work, gets more obvious if they are analyzed together with the individuals’ desires before they join the work reality: “I used to dream to be someone relevant, right? To be a fireman, a doctor…but I didn’t have the chance, what can I do, right, brother?!” (Depot collector, 38 years old). The workers’ speeches confirm the data from the Municipality research about the need for survival as immediate motivation to join the garbage collection activity, related to a life context characterized by an unstable and precarious trajectory.

The present research and the one performed by the Municipality present immediate motivational factors for the immersion into garbage collection activity, which may be associated to other factors as the absence of a boss, the flexibility in the work hours and the freedom that comes from such issues. However, those are secondary factors, which are not mentioned by the workers as reasons to start working with garbage collection, but as advantages that were posteriorly discovered. Despite the advantages mentioned by the workers, they also present some disadvantages concerning the so-called freedom due to the absence of a boss: “But it’s like this, if you work, you earn, if you don’t work, you don’t earn, right? This is a disadvantage because it’s better for the guy to work knowing that he has an established profit.” (Depot collector, 32 years old). The flexibility that comes from the autonomous characteristics of the work is also an object of analysis by Sousa & Mendes (2006, p. 33), to whom “
this flexibility has a perverse effect – the self-imposition of long and exhausting work journeys as an effort to improve the final profit”

It is noticeable that the main difficulties presented are related to the treatment given by society to the garbage collector, the uncertainty about the earnings and the acquisition of the work material, which is becoming more and more difficult, according to the collectors – also, the profitable potential of garbage collection is being noticed – furthermore, there is also the weariness and the instability about the earnings, which prevents a regular income and a particular financial planning for the workers.

The disadvantage of garbage collection is that there are days we don’t get anything. Sometimes, the guy walks a lot and doesn’t find anything, and then he goes away with nothing. (Association collector, 53 years old)

The expression of the desire to perform another activity and to have the perspective of a different way of work in the future – which is also a wish for the future generations – reinforces garbage collection as the last alternative and emphasizes its association to precariousness as it confirms that the collector is only satisfied with his work as long as there is no other way to support his family

I would like to do something else[…]. Anything God could give me, a more dignified job, everybody dreams about it.. (Depot collector, 35 years old)

I hope my children don’t get the bad luck to have this kind of job at my age. I hope they have a good future, a good job. Because this can’t let us walk forward, it’s only to survive, it doesn’t get better. (Association collector, 44 years old)

Concerning the factors that make the desire of having another work activity hard to accomplish, it is possible to notice that they are similar to those that led the worker into the garbage collection activity. This emphasizes the continuance of the prior precarious state and its increase or, at least, the maintenance of such condition associated to garbage collection activity. Therefore, it is noticeable that the garbage collection hasn’t solved the problems that prevented the workers to join the formal work reality in the first place, so the cycle continues to be fed.

About the prejudice, it has to be understood that the work performed by the recycling material collectors is not very far, concerning its status, to the value of their main material of work, the garbage itself, the product of waste, useless, associated to dirt, to society consumption purges. Furthermore, other elements also contribute to the construction of this image, such as the human traction
used to pull the heavy carts along many miles— which resembles animal traction—the old clothing, the dirty hands, the skin marked by the poverty that led the workers to appeal to garbage collection in order to survive. Thus, the precarious situation in which the collector performs his precarious work interferes even in his self-image.

There are people that pass by us and say “go, animal, pull the cart!” It’s like this; they say it from a fancy big car. (Depot collector, 32 years old)

The main forms of prejudice addressed to garbage collectors associate the collection activity to criminality and connects the dirty streets to the fact that these workers usually tear the garbage bags to collect their material.

Despite the prejudice, the collectors also count on solidarity on their work journeys. So, there are those who receive food, personal and domestic objects. The acts of solidarity, which the collectors often think to be luck or divine blessing, are reported in contrast to the acts of prejudice, as it could be some kind of compensation.

There are very good people, man! That’s why I say that among the bad things we find the good things....It compensates. (Depot collector, 35 years old)

Besides the all the negative stigma surrounding the garbage collectors, many researchers of this area put in focus the importance of these individuals as environmental agents as they are responsible for the collection of a great part of the city’s garbage (MEDINA, 2007; ABREU, 2001). The collectors, especially those who have the opportunity to discuss about their own work, emphasize the importance of the collection activity not only concerning their particular needs, but for the environmental effects it provides and the contribution to the management of solid urban wastes.

The government has to encourage our work more. That’s what we need. Why? If it weren’t for our little work, our recycling project, how would the city be? The garbage trucks wouldn’t keep up with it! (Association collector, 44 years old)

Though this view, the collector’s work reaches a socio-environmental relevance that is not compatible with the precariousness of the occupation and with the way the work is seen by society. Thus, many authors (MAGERA, 2004; LAYRARGUES, 2002; MEDEIROS & MACÊDO, 2007) assume a more critical position, questioning this shallow way of inclusion that gives an importance value to the garbage worker. It is about a twisted inclusion in which the garbage collection activity would only be politically correct according to certain interests. In this sense, Medeiros & Macêdo
(2007) question the quality of the inclusion provided to those individuals, who join the work market through defective ways that do not ensure them any basic social rights. That is why the authors pose that “the recycling material collector is included by having a job, but is excluded by the kind of work he performs.” (Idem, p. 82).

Through this line of though, it is understood by Bergere Lukmann (1966/2002) that the identity may refer to the insertion of the individual into the world and his relation to the other, at the same time as we see the multiple and dynamic features that the identity shows while not only the work reality, but also the individuals, change concerning the material and historical conditions given (Ciampa, 1998; Santos 2001). In Santos (2001) point of view, we are a compound of individuals who combine ourselves in several situations, starting from multiple particular and collective circumstances. Therefore, being a garbage collector can be one of the only insertion alternatives for these individuals into the world, in the sense of resuming the relation with the other through a precarious and, above all, stigmatizing kind of work.

7. PRECARIOUSNESS IN A FACTUAL SCENARIO AND SIMBOLIC DEPRECARIZATION AS AN INCLUSION ALTERNATIVE

The results of Fortaleza Municipality’s research (2006), analyzed with the data and information obtained through ethnographic studies and interviews with the garbage collectors, allow us to conclude that the immediate motivation to join this kind of work is the need for live basic material maintenance. However, through this perception, could there be material and symbolic strategies capable to fight the precarization derived from garbage collection and its effects over the collectors’ lives? Initially, we can assure that the subjective construction of new work motivations consists in a strong indicator of a defense strategy in response to the precarization of work conditions.

The collection workers, both the affiliated to an association and the loose ones, make use of many strategies to face work precarization. Among several of them, we can mention following the route of the garbage truck, searching for places where the “rich garbage” can be found and establishing of a relationship with other workers as security guards, doormen and little market owners, who allow the collectors to look for garbage in private places, as well as give them food or a place to sleep when working at night.

These are not only objective strategies, but also subjective, as those that seek the social recognition of the work performed.
However, the strategies taken as the more solid ones, the ones that are not limited to the individual collector’s sphere, but have a more collective feature, are provided by the organization of collectors groups an associative ways.

Although the work in both places is performed in precarious conditions, the Association collector enjoys better conditions concerning the work environment. Such conditions involve material issues, evidenced by the hygiene state of the association headquarters, the existence of sanitary rooms (nonexistent in the visited depots), the existence of well conserved kitchen appliances to prepare meals, the presence of proper places to rest as well as meeting rooms and the maintenance of partnerships that provide a great deal of material without the need for the collector’s presence. However, there is also several differences that end up contributing to the work conditions improvement in the association, such as the workers participation in discussions about the problems related to garbage collection activity—besides subjects connected to social movements—, the presence of leadership groups, politic awareness, better autonomy concerning the work production process and stronger group bonds which all lead to the representation of the activity not only as an individual process, but as a work inserted in a social context, giving a clearer view and bigger respect for the activity performed and constituting new motivations, different from those who led the collectors to this kind of work in the first time.

Through the collectors’ speeches about the work connected to the association or the loose work, it is possible to notice the importance given to the autonomy derived from the association work, besides other characteristics mentioned by them:

I think it’s good to work here, in the association. […] It’s because here, here is ours. Here is something we are associated to, in the other places we are not […] I don’t think there’s something better in the other depots. (Association collector, 44 years old)

The advantage is that you are better seen. You are more respected. (Depot collector, 35 years old)

From what I’ve heard I think the association is better. […] Because a collectors association surely has a uniform, a name tag, it’s all organized, in the end of the month we have this and that. You see, I’ve been working for 4 years, so if I come here today and give this cart to the depot owner, am I going to be with nothing? With no rights? (Depot collector, 31 years old)
A certain collector from the visited depot emphasizes what he considers to be an advantage about the association work, concerning exactly the restrict possibility to make a profit planning.

Working in association must be better, because you get your dignified money without worrying, right? Worrying if today I’m going to make that amount of money. No, you already know how much you’re going to earn to pay your bills, to pay for your things. (Depot collector, 38 years old)

Therefore, it is all about a set of material and symbolic factors that act together in the way to provide a symbolic deprecarization to the garbage collection work. It is, so, a contrary movement towards the precarization process, which is characterized by acting not only on the factual precarization scenario, but also involving identity reconstruction issues for these precarious individuals as workers, starting from the self-recognition of their work importance, the insertion in organized groups and the social and political awareness which end up affecting their lives materially.

It is relevant to observe that there are fundamental differences in this identification process, concerning the perspective of identity (re)construction based on the work activity, when the collector is associated to a minimally organized congregation, which establishes rights, duties and rules that make them feel as workers whose mission is to act as “environmental agents”. This practice contributes to the worker’s self-esteem and reinforces the symbolic deprecarization process which we refer to. However, the loose collector, whose experience as an ex-prisoner seeking to reconstruct his life through work, cannot imagine himself as an environmental agent because his prior work relations were marked by unawareness, frailty, corruption and transgression (being paid with drugs, having prices established by the depot owner’s mood and encouragement by these owners to acquire robbed products). How could these workers reconstruct their citizen identities, being part of a social environment through a legal way of work and how could they absorb the concept of symbolic deprecarization?

Taking back the initial reflections, we have the concept that work is more than a way to supply material needs, it is also responsible for the individual’s insertion in a social place. However, giving the individual a stigmatized social place consists in identifying him with the stigma given to his work. So, the association of work to values such as environmental defense, now at stake, allows the stigma to be mitigated. Looking through Goffman’s (1982) view, more than autonomy related to price negotiation, the collectors association provides the workers not only an experience exchange in local, national and global level, but also an autonomy related to the image society has constructed over their
work. It constitutes, so, a way to manipulate a symbolically deteriorated collective identity, since the victim of the stigma doesn’t remain still before the stigmatizing representation addressed to him, but acts in the ressignification of his own identity for himself and for others (idem, 1982).

Through another point of view, providing a meaning to work that goes beyond the one implicit on the first motivations leads to a relevant work ressignification process, which acts seeking the minimization of the work’s weary effects. Thus, the work has a new meaning added to its concept (WEBER, 1999, p. 16) that leads to its greater social recognition. Under the analysis of Dejours (apud SOUSA & MENDES, 2006), the recognition of the individual and of his work in a social level is relevant to enable a meditation process involving the work suffering and the pleasure of executing the work activity.

It is important to have in focus the fact that precarization happens in material and symbolic ways, therefore, its opposite vector, the symbolic deprecarization, must work in the same sense, but in opposite directions, providing a continuous feedback relation between the material and symbolic features, both as effects and causes. In other words, the best material conditions found in the association allow the collectors to dissociate themselves from specific material needs, permitting their reflection about other important aspects of their work and leading to positive material reflections. The process also happens in an inverse way when the collective feeling enables them to collaborate mutually, increasing the group profits and reinforcing the group bonds.

Thus, the slow and gradual symbolic deprecarization process extends its effects to materiality sphere, not being restricted to the individual subjective level, singularly and socially considered. That is the point of Bourdieu’s reflection, which states that the effects of symbolic power have real repercussion over individuals’ lives, leading to “the obtainment of what is obtained by power (physical or economic)” (2006, p. 14). Before what has been exposed the symbolic deprecarization process could be presented by the scheme below, considering the dialect movement between material and symbolic features observed in the association:

**MATERIAL:**
- Better infrastructure;
- Connection to projects that multiply the material subsidies;
- Donations from partners;
- Support from Government;
- Less uncertainty concerning earnings;
- Easier price negotiation;
- Less Field work

**SYMBOLIC:**
- Participation in discussions about the work activity;
- Insertion in organized groups;
- Reflection about the workers situation;
- Better comprehension of work as part of a bigger chain;
- Ressignification of the activity (importance to the environment and waste management);
- Greater autonomy;
- Recognition of the worker identity;
- Interest in fighting to improve the work and life conditions.
The internalization of these elements makes the work and the fight for better work conditions recognized not as an individual cause, but as a collective matter and the frequent discussed subjects permit the collectors to reflect about their own work. If work is essential to individuals’ social and identity construction, it consists in an important process of recognition of oneself.

Concerning the recognition of the process of fighting for work conditions improvement, a collector from the visited association exposes differences between collectors affiliated to the association and the loose workers:

Here you know that you are fighting for a cause that is not only for you. There is the situation of your coworkers inside the association, the situation of you living with everybody every day, there is fellowship among everybody talking, playing, knowing each other’s reality. […] I think that in the depot there is no such thing, because there you take the cart and go away. The depot owner is only interested on his own profit. (Association collector, 33 years old)

The observation of the symbolic deprecarization does not mean that these individuals, workers of a socially stigmatized activity that is indeed extremely precarious, succeeded at the reversion of a precarious situation which defines their life histories and are related to a great variety of factors. In this same sense, this process also does not promote fairness between the garbage collectors and the big garbage executives. This is a process that tries to endogenously make an opposite movement to the perverse inclusion, trying to give social importance to garbage collection work at the same time that demarcates differences concerning the conditions and organization of work of a category that overly interferes in the construction of the worker’s and social individual’s identity – the loose collectors and the associated ones.

Thus, this complex process cannot be held responsible for the effect (magical, perhaps romantic) of assuring the immediate insertion of the collector in a context of recognition and guarantee for their rights as a worker and citizen. It is necessary to understand the symbolic deprecarization as part of a wide process of active rights achievement, characterized by progress and regression. A process that must be guided by the collectors themselves, who are the addressers and the recipient of such achievements, starting from qualification processes and organization compatible to the importance of the work they perform.
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WS3.2-4 Abstract:

‘Working environment in Fishery Small Enterprises in developing country’
by Suwattana Charumilinda, Lecturer, College of Innovation, Thammasat University, Bangkok, Thailand
(presenter absent)

Problem Statement: When considering the working environment in small enterprises of Fishery Industry in Thailand, we found that the Fishery SMEs were impacted by the seaport pollution in term of fishermen health. Sources of port pollution are ships, bulk cargoes, liquid cargoes, general cargoes that create dust, odour and oil pollution (Goulielmos and Pardali, 1998).

Approach, Methods: In order to know exactly the health problems, we did the research in 2008, about the attitudes of the local people at Si-Chang Island on the impacts of Si-Chang deep seaport to their health. There were 310 survey samples, most of them are Fishermen who are employed by Fishery SMEs and independent Fishermen. The results show that the samples have good quality of health and happiness (37.7%). The samples are worried with the dust (84.5%). The dust in the air and on the sea irritate to their eyes and respiratory tracts. The leakage of gasoline to the sea and the garbage from the ships create bad smell.

Participatory approach improving health problem in SMEs. Coordinated with all concerned parties, which are The Thai Public Port Co., Ltd, owner of the deep seaport, the municipality of Si-Chang Island, the representative of Fishery SMEs to discuss about the research results in order to solve the problems.

Results: There are corrective actions from all concerned parties as following:
1. The Thai Public Port Co., Ltd will review it’s standard operating procedure in order to control pollution.
2. All parties will work together to solve health problems, regarding port pollution.

Conclusions: It is good start to concern about health problems related to working environment, even though there is no commitment from any parties to routinely check up the health of the employees.
Working Environment in Fishery Small Enterprises in Developing Country

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Abstract
When considering the working environment in small enterprises of the fishing industry in Thailand, we found that the fishery SMEs at Si-Chang Island were impacted by seaport pollution which affected the health of fishermen. In order to identify health problems among fishery workers, we conducted a research in 2008 on the attitudes of the local people at Si-Chang Island towards the impacts of Si-Chang deep seaport on their health and happiness. There were 310 survey samples, and 10 in-depth interview samples, most of them were fishermen employed by fishery SMEs or independent fishermen. The results showed that many fishermen were in very good quality of health (69.0%) and happiness (65.8%). The subjects however, showed concerns regarding the dust particles in the air and in the sea which irritated the eyes and respiratory tract. There are corrective actions from all concerned parties. It is good initiative to show concerns regarding the health problems related to the working environment.

Introduction
In 1989, the Thai government issued a policy aimed at enhancing domestic industry and facilitating economic expansion with an emphasis on water transport development, which proves to be a convenient transport mode, i.e., bulk transport at lower costs than other modes. There was a
preliminary study of Thailand’s water transport facilities. The study indicated that there was indeed a pressing need for a new port, especially a deep seaport. Si-Chang was deemed to be the most suitable location for the new port because of its inshore water depth of up to 18 metres and its proximity to Bangkok, the capital of Thailand. The private-owned Si-Chang Deep Seaport Project was thus founded in order to construct a deep seaport on Si-Chang Island.

The Si-Chang Island is one of the most important islands in Thailand. It is situated in the Gulf of Thailand, twelve kilometers offshore from the city of Sriracha, Chonburi Province. Its proximity to shipping lanes made it a convenient anchorage spot for dozens of barges which transship their cargoes to lighter boats for the trip up the Chao Phraya, one of the main rivers of Thailand, to Bangkok. Eighty percent of the area being hilly and rocky. A rocky grassland is in the middle part of the island. There are no major rivers, streams or ponds on the island, except one man-made reservoir. The coastal area on the western side of the island consists mainly of rocky shores and steep cliffs while the eastern side consists of rocky beach. Si-Chang Island is home to a small fishing community surrounded by natural beauty. It also served as an anchorage hub for commercial trade routes with China beginning during the Ayudhya period (1350-1767 AD). Located at the center of the eastern seaboard development project, Si-Chang Island has become an important seaport and a tourist attraction. This has resulted in an inflow of labor from other places and, as a result, the area has become densely populated with insufficient public utilities and facilities.

Seaports are major hubs of economic activity and of environmental pollution in coastal urban areas. Due to increasing global trade, transport of goods through ports has been steadily increasing and will likely continue to increase in the future. Evaluating air pollution impacts of ports requires consideration of numerous sources, including marine vessels, trucks, locomotives, and off-road equipment used for moving cargo. The air quality impacts of ports are significant, with particularly large emissions of diesel exhaust, particulate matter, and nitrogen oxides. The health effects of these air pollutants to residents of local communities include asthma, other respiratory diseases, cardiovascular disease, lung cancer, and premature mortality. In children, there are links with asthma, bronchitis, missed school days, and emergency room visits. The significance of these environmental health impacts requires aggressive efforts to mitigate the problem (Bailey and Solomon, 2004).

The study of pollution problems resulting from the Deep Seaport Project and affecting people living in the area has inspired the researcher to look into the health-related impacts of the pollution on people living nearby the project site. The researcher has chosen the Si-Chang Deep Seaport Project
because it been in existence for 20 years, which a long enough period to show the above-mentioned impacts.

The objectives of this research are: to study attitudes of local residents towards impacts of the Si-Chang Deep Seaport Project in Chonburi Province on their health and happiness; to compare the impacts of the Si-Chang Deep Seaport project on the Si-Chang community’s health and happiness by taking into account such variables as gender, age, educational level, occupation, income, hometown, dwelling period in the area and social status; and to consolidate recommendations regarding adjustments and solutions to environmental problems.

**Literature Review**

*Sea transportation as a major hub of economic activity and environmental pollution*

Sea transportation plays a major role in the majority of national and international trade and economic growth (Tahar and Hussain, 2000). More than 90 percent of international cargo moves through seaports, which have an approximately 99 percent contribution to the economy of the world (Branch, 1986). Sea transportation has been an important catalyst of world trade and economic growth in general (Lambertides and Louca, 2005). The deep seaport strategic location between sea and land makes them the best witnesses of pollution coming from land, ships and from the ports themselves (Goulielmos, 2000). The problem with any port expansion or development is the priority between environmental and social-economic issues (Finny and Young, 1995).

*Sources of port pollution*

Sources of port pollution are ships, bulk cargoes, bulk liquid cargoes, general cargoes that create dust, odour and oil pollution (Goulielmos and Pardali, 1998).

*Port pollution due to ships*: Ships moving into a port for berthing or while waiting in the anchorage are potential polluters because of their possible collisions or stranding. Ships pollute ports through gas emission from the main engine and hot water, noise from ships’ engines and exhaust emission in the case of passenger ships (Englezou et al., 1993). Ships’ maintenance and repair that takes place in floating or grave docks or alongside a port dock create pollution from rust removal, old paints and various chemicals. In the case of tankers, the risk of pollution increases owing to noxious and inflammable substances that may cause sea water pollution or an explosion.
Polution coming from fuel when being delivered to ships within a port is a frequent cause of serious effects on the sea environment (Goulielmos and Pardali, 1998).

**Port pollution owing to Bulk cargoes:** It is expected that cargoes like coal, iron ore and others, while loaded/unloaded or stored (higher probability) in ports create dust. The dust may damage other cargoes stored in the port e.g. cars or may pollute residences near the port and harm residents’ health (Goulielmos and Pardali, 1998).

**Port pollution owing to Bulk liquid cargoes:** Research has shown that the main causes of port pollution have been identified as bad maintenance of storage tanks, improper linkages between ship and shore, valve explosion, breaking out the connection of ship with a pipeline. It is expected that when handling oil and the linkage with shore is broken, then 3,000 litres per hour can be poured into the sea. Ship maintenance is important to avoid the above hazards (Goulielmos and Pardali, 1998).

**Port pollution owing to General cargoes:** General cargoes nowadays are transported in boxes (Bruning, 1985), but a considerable percentage of these are dangerous goods. Also, 60 percent of all packed dangerous goods are carried in boxes. The most frequent accidents in the case of general cargoes which create pollution are caused by falls of boxes from the cranes and damage caused by cargo handling equipment. Noxious cargoes of course threaten the health of people working in ports and nearby residents and cause land pollution (Goulielmos and Pardali, 1998).

According to UNCTAD, common causes of port pollution are ships, cargo, port and city (UNCTAD, 1993). Pollution is generated from the maintenance of port’s equipment and suprastructure due to gritblasting and spray painting or from ship repairs in the port area. Pollution may come from maintenance and repair works of the industrial plants located in the port (Goulielmos, 2000). Requirements among industry sectors need to determine the difference of industry locations (Estonian Marine Institute in Tallinn, 2000).
**Seaport’s minimum requirements**

Pollution in the port is also attributable to the port’s working procedures, i.e., vessel and pier cleanup and the waste drainage system. Port industry involves materials and chemicals prone to cause damages to the environment, thus they should be strictly overseen (Gibbs, 2008). Infrastructure and technology of port industry, sizes of the ports and ports’ operational systems should always be appropriately upgraded so as to streamline ports’ operations to meet international standards (Williams, 1991). The port’s development plan and technology implementation plan should be promptly executed to ensure minimum impacts on environment (Gailiusis, 2005).

Regarding environment-related control and supervision, all international ports must be ISO 14000 certificate holders.

Ports’ operational efficiency assessments take into consideration: cargo quality, timing and technology. The ports must offer good services and prioritize customer satisfaction by delivering quality goods on time. A wide range of working units are involved in the ports’ operations, therefore the ports must coordinate among them to assure compliance with rules and create environment-friendly measures, for instance crane and machinery inspections and personnel performance checking (Brooks and Pallis, 2007).
**Seaport pollution affecting human health**

Maritime transport causes 12% of all environmental pollution. Water pollution can be clearly seen in oil leaks. Air pollution partly comes from dust particles produced during the cargo transfer process, which badly affects human health (Goulielmos, 2000).

Oil leaks from vessels and waste dumps into the sea carry an adverse threat of aqua-ecological disaster to sea animals and people living nearby, who may be slightly but constantly ill (Pomeroy, 2008).

**Methods**

This study is based on quantitative as well as qualitative methods. Data for this study were obtained through primary and secondary sources. Secondary data were obtained mostly from journals, books and online databases including Emerald, Sciencedirect. These secondary sources provided broad coverage of academic and trade publications used for the literature review, hypotheses development, and questionnaire development stages.

Primary sources of data were collected from quantitative method which were survey research and qualitative method which were in-depth interviews.

**Scope of the research:**

Study the attitudes of the population living at Thaewawong District, Si-Chang Island for more than 1 year.

**Survey data**

A survey was carried out with 310 participants, with the use of a self-administered questionnaire for the empirical test.

**Qualitative interviews:**

10 In-depth interviews were carried out with a sample group comprised of representatives from each village, who had been carefully selected by the community and the local leaders, consequently can be considered key informants.
3.1 Population
The target population of this research included the population living at Thaewawong District, Si-Chang Island for more than 1 year. Thaewawong District, Si-Chang Island consists of six villages. The number of households in this district was 1,369 households. The total population was 4,681 which 2,329 were male and 2,352 were female.

3.2 Sample
The sample size determination was based on New York State Division of Housing and Community Renew (Yamane, 1973, P.727). The sample size was 309.55 samples, and thus the researcher set the number as 310 instead. The sampling procedure involved a 2 stages sampling, 1st stage was Stratified Random Sampling of 6 villages, 2nd stage was Simple Random Sampling of the sample unit.

3.3 Validity and Reliability testing of questionaire.
30 pretest questionnaires was assessed. The reliability of the questionaire was assessed by using Cronbach’s coefficient alpha analysis. The coefficient alpha value exceeded the threshold value of 0.7. The content validity was assessed and corrected.

3.4 Data Analysis
The statistical analysis techniques used for this study were Descriptive statistics and Inferential statistics. First, descriptive analysis for respondents’ characteristics was conducted to ascertain frequencies, distributions, means, and standard deviations. Second, T-test and F-test (One-Way Analysis of Variance) were chosen as the statistical techniques to assess hypothesized relationships of differences attributed to groups. The multiple comparison technique to compare means in several groups after F-test is employed, is LSD (Least Significant Difference).

Results
4.1 The data from the interviews of 10 representative samples are as follows:

1. Positive impacts of the Si-Chang Deep Seaport Project on economic growth
Effectively responding to Thailand policy, the Si-Chang Deep Seaport Project was opened in 1996 and has been functional up until now. It can accommodate five big vessels at one time with the east
dock responsible for 100,000-ton ships and the west dock for 240,000-ton ships. Furthermore, the port houses an oil warehouse with a capacity of nine 100,000-barrel oil storage tanks. Since the port’s opening, public utilities have been progressively developed. At present, Si-Chang Island is always preoccupied with shipments. The project was designed for offshore cargo transfer of large vessels onto ships heading towards the Klong Toey Port and export cargo transfer to large cargo vessels.

At present, there are six piers in Si-Chang Municipality, two of which are cargo piers, namely Phanurangsri Pier (Up Pier) and Thaewawong Pier (Down Pier). Other piers include Water Police’s Pier, Customs Bureau’s and Immigration Bureau’s Pier, Fishery Pier and Harbor Department’s Pier. These piers serve as alternatives for Phanurungsri Pier (Up Pier) and Thaewawong Pier (Down Pier), which are always packed with 100-200 fishing boats, passenger boats, ferries and tourist boats.

The Si-Chang Deep Seaport Project’s operations have contributed immensely to Si-Chang Island public utilities: the number of people visiting the island has increased; and rounds of ferries to the island have been increased to serve more passengers since the opening of the port.

2. Pollution of the Si-Chang Deep Seaport Project

The port’s operations have brought about many environmental problems on the island due to invasions into restricted areas, land reclamations ruining Si-Chang Island natural areas, oil leaks from cargo ships and pollutants drained into the sea. The port’s operations also cause dispersion of dust particles in the air, and oil slicks and precipitation during offshore cargo transfer of large vessels. Pollution problems were derived from vessels’ filthiness and waste, vessel cleanup, vessel anchoring, vessels’ collision, vessels colliding into the marinas, accidents occurring during vessels’ docking procedures, cargo overturns, immense cargoes, air pollution from chemical, liquid and dangerous cargoes. It is possible that during the transfer and transport processes, cargoes in substandard packages can be damaged causing the liquid cargoes to spill into the sea.

3. Pollution from cargoes

According to the interviews, the east dock of the port is in charge of both import and export cargo transfer. The export cargoes include rice, corns, cement, soft and hard cassava pellets. The import cargoes are soybean meal, wood, steel, fertilizers, crude and refined oil, which are transferred and shipped to Bangkok Port. Soft cassava pellet transfer causes the most dust diffusion.
4. Impacts of Pollution from the Si-Chang Deep Seaport Project on the local residents

The finding from the interviews was that the operations of the Si-Chang Deep Seaport Project had caused sea pollution: airborne dust particles resulting from cargo transfer, slicks on the water surface, and oil slicks from both vessels of the Port’s project and fishing boats. In addition, there were trashes from tug boats standing by for cargo transfer. These problems had sentimental effects on the concerned and anxious local people. Even though the problems were under Si-Chang Municipality’s control, they were still unsolved.

5. Interviewees’ views of the causes of problems of the Si-Chang Deep Seaport Project affecting the local residents

According to interviews with local representatives, the Si-Chang Deep Seaport Project has no direct activities with the community, who are informed about the project’s information solely by Si-Chang Municipality.

The project has been beneficial to the community but the lack of direct coordination and cooperation is likely to yield negative effects on the project’s operations. The central government had handed operational control over the project to Si-Chang Municipality, but the role of the Municipality only went to the extent where problems already occurred. No clear information announcement has been in place.

Working environment as an area of both conflict and consensus in SMEs

Traditionally the working environment in small enterprises was considered very important as an owner-manager explained that the fishermen had to work in the polluted environment affecting them SMEs and their health.
1. **Impacts on their occupation.** – The question was “How does the Si-Chang Deep Seaport impact the fishing career of the Si-Chang community?” The sample group agreed that the project caused the fish to migrate to somewhere else. Even though fish cage culture was promoted and corals were taken care of, the number of fish still kept decreasing. The operator stated that ”We think that the number of fish has decreased because we have to go further out in the sea and stay longer there and still get fewer fish.” We can see that the working environment for small enterprises, especially for fishing ones are vital.

2. **Impacts on SME operators’ health.**
The Si-Chang Deep Seaport Project has caused sea, dust, trash and oil slick pollution, and it intensifies in November and April. The trashes from tug boats waiting for cargo transfer and oil slicks on water surface are not so concerning but frequently happen.
The dust particles causing eye irritation and trash and oil odor causing headaches can be partly be causes of colds, but they are not grave.

**Towards a new understanding of OHS (Occupational health and safety) in SMEs?**
Looking beyond the traditional perception of working environment in small enterprises, the community was not so aware of fishing working environment. The Municipality, on the other hand, are well aware of health and safety and is trying to get them to protect themselves from the pollution. Examples of activities are Si-Chang Island Heritage Protecting Activity, Trash Management Activity, Waste Water Management Activity, Sea Crab Conserving Project and Coral Conserving Project.

4.2 **The data from the survey are as follows:**
**Survey data:** A quantitative survey was carried out with 310 participants.
Gender: 74.8% of which were male and 25.2% of which were female.
Age: 47.1% of which were 41-50 years of age, 31.3% of which were 31-40 years of age, 16.8% of which were > and = 50 years of age, and 4.8% of which were 20-30 years of age.
Education: 70.3% of which had primary education and 21.6% of which attained secondary education, 4.8% of which had Diploma, only 3.3% of which had Bachelor degree and higher.
Monthly income: 50.0% of which had an average monthly income of 5,000 baht and 46.5% of which had the income of 5,001-10,000 baht, 3.5% of which had the income of 10,001-20,000 baht.
Hometown: 76.1% of Si-Chang residents were born there while 23.9% were not.
Dwelling period: 83.9% of the sample group had lived on the island for more than ten years, 15.2% and 1.0% of the group had lived there for 6-10 years and 1-5 years, respectively.
Occupation: 30.6% of the subjects were employees, 29.0% were fishermen and 27.7% were merchants. Only 12.7% had other occupations.
Social status: 82.3% of the subjects did not hold any position in the community while the other 17.7% did.
Analysis result data of the sample group’s health showed that the group was largely in stable health conditions, and most of them are concerned about the airborne dust particles.

1. Attitudes of local residents towards impacts of the Si-Chang Deep Seaport Project in Chonburi Province on their health and happiness.

According to a data analysis of attitudes of local residents towards impacts of the Si-Chang Deep Seaport Project in Chonburi Province in terms of health and happiness, it was concluded that the project’s operations caused pollution due to airborne dust particles and slicks on the water surface, which cause eye irritation and colds. Oil leaks that produced unpleasant smells and trashes dumps into the sea by ship operators waiting for cargo transfer also contribute to the water pollution. Only 1.9% of the sample group had respiratory problems. Most participants had no hearing and gastrointestinal problems. As for health and happiness, very good quality of health (69.0%) and happiness (65.8%), and good quality of health (27.4%) and happiness (31.3%), because the environmental problems are being very well handled of by Si-Chang Municipality. Moreover, Si-Chang Island is a big island with a lot of space and natural year-round ventilation. The Aquatic Resources Research Institute, Chulalongkorn University, (2005, p.29-30) stated that Si-Chang Island is quite of a large size with an area of 18 square kilometers and a stable climate and natural year-round ventilation. However, 84.5% of the sample group was most concerned about their health that might be affected by dust particles although no impacts on health were found yet.
Table 1 shows the number and percentage of survey answerers according to health and happiness measuring criteria.

<table>
<thead>
<tr>
<th>Results</th>
<th>Stable</th>
<th>Poorer</th>
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<tbody>
<tr>
<td>Very good</td>
<td>69.0%</td>
<td></td>
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<tr>
<td>Good</td>
<td>27.4%</td>
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<tr>
<td>Fair</td>
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<tr>
<td>Poor</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>310</td>
</tr>
</tbody>
</table>

| Results          | 65.8%  | 31.3%  | 2.6%  | 0.3%  | 100%  |
| Health           | 69     | 85     | 11    | -     | 310   |
| Happiness        | 204    | 97     | 8     | 1     | 310   |

Table 2 shows the number and percentage of survey answerers classified by diseases.

<table>
<thead>
<tr>
<th>Problems</th>
<th>Quantity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Problems</td>
<td>262</td>
<td>84.5</td>
</tr>
<tr>
<td>Water Problems</td>
<td>69</td>
<td>22.3</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>8.9</td>
</tr>
</tbody>
</table>
Table 3 shows the number and percentage of survey answerers classified by problems regarding the Pollutions.

2. Comparison of the impacts of the Si-Chang Deep Seaport project on the Si-Chang community’s health and levels of happiness by taking into account such variables as gender, age, educational level, occupation, income, hometown, dwelling period in the area and social status.

According to a research hypothesis, “Different personal factors are related to different attitude towards the Si-Chang Deep Seaport Project in terms of health”. After comparing this hypothesis with the results and considering the impacts in each aspect, we can have the following discussions.

1. Gender: The research result did not correspond with the hypothesis. Different gender does not have different attitude towards the Si-Chang Deep Seaport Project in terms of health.

2. Age: The research result corresponded with the hypothesis. This showed that people of different ages had different health conditions, which was in accordance with Narong Sengphracha’s statement (1995, p.95) that people of different ages had different levels of happiness and contentment with quality of life. This statement also corresponded with that of Chairoth Thanasanthi (1992, p.23) who said that happiness of people of different ages were different due to their learning and experiences. Attitudes about health varied among people of different ages. In terms of health, it was found that the attitudes of the subjects of more than 51 years of age were different from the 41-50, 31-40, 20-30-year-old subjects, and the 41-50-year-old subjects’ attitudes were different from the 20-30-year-old subjects. In terms of happiness, it was found that the attitudes of the subjects of more than 51 years of age were different from the 41-50, 31-40, 20-30-year-old subjects.

3. Education: The research result did not correspond with the hypothesis because 70.3% of the sample group had a primary education level, therefore the health and happiness levels were not different. In addition, the islanders have good health and happiness levels.

4. Occupation: The research result did not correspond with the hypothesis because the people living on the island make a living there. Therefore, even though their occupations are different, they live in the same neighborhood; subsequently have similar health and happiness levels. This corresponds to Sucha Chandra-aem’s statement (1981, p.32) that in the same climate and geography, even though people had different careers, the health results of the people would be similar.

5. Income: The research result did not correspond with the hypothesis since the pollution problems on the island are not critical and are well handled by the Municipality, the islanders have a few minor sanitary problems.
6. Hometown (birth place): The research result did not correspond with the hypothesis because Si-Chang Island has a good climate and the pollution problems are still at a moderate level. All the subjects had been living there for more than one year, and 76% of which were born there.

7. Dwelling period: The research result did not correspond with the hypothesis because the environmental problems were not severe.

8. Social status (with/without position): The research result corresponded with the hypothesis. The affected attitude of the persons with community positions was different from those without any positions. Health and happiness assessment results showed that the health and happiness levels of the persons with community positions were different from those without any positions, which was in accordance with a research by Robert Pomeroy (2008, p. 426) regarding fishery policies of Vietnam, where community leaders and government officials were in charge of environmental protection in villages and working areas. These people had a higher stress level than those holding no community positions.

Therefore, the difference of happiness and health levels of the sample group, classified by different variables: gender, educational level, occupation, income, hometown and dwelling period in the area, was not statistically significant at the statistically significant level of 0.05. The difference of happiness and health levels of the sample group, classified by different variables: ages and social status (with/without positions), was statistically significant at the statistically significant level of 0.05.

Conclusions

The comments and concerns raised in this paper are offered to provide a starting point for Si-Chang Municipality and the executives of Si-Chang Deep Seaport Project and local resident representatives to initiate discussions regarding environmental issues which impact to the health and happiness of community.

The current operations of the Si-Chang Deep Seaport Project are causing sea pollution due to airborne dust particles and slicks on the water surface, which cause eye irritation and colds. Oil leaks that produced unpleasant smells and trashes dumped into the sea by ship operators waiting for cargo transfer are contributors to the water pollution. Nevertheless, the islanders are not severely affected: they do not suffer from respiratory distress, due to the particles and smells, hearing impairment, or gastrointestinal diseases due to contaminated water and foods. Some of them have some minor natural diseases. The community is slightly concerned about the dust particles, which
Si-Chang Municipality, the Harbor Department and the Si-Chang Deep Sea Port are collectively attempting to find measures to tackle. According to the survey, in Si-Chang District, there is one 30-bed community hospital. Five leading causes of sickness are respiratory diseases, problems with the cardiovascular system, digestive diseases, endocrine and nutritional diseases and accidents. The port’s operations are causing sea pollution such as airborne dust particles, contaminated water and trashes. Although these problems are not severe, to some extent, the locals feel their livelihood is being threatened by the project, which is situated within their vicinity.

According to the research results:
1. The sample group found that the government agency responsible for the Si-Chang Deep Seaport Project held the environment as an important issue.
2. The sample group found that public relations should be improved so the community could be well informed and express their opinions, and there should be more coordination among the local administrative agencies and the community to encourage participation from all parties involved.
3. Most of the sample group found that the major problems and obstacles to protecting Si-Chang environment from the Deep Seaport Project was the rejection of community involvement.
4. Apart from dust, polluted water and noise, the Deep Seaport Project also contributes to garbage problems: tug boats standing by for cargo transfer, and docking in a disorderly manner.

**Recommendations regarding adjustments and solutions to environmental problems in Si-Chang District, Chonburi Province.**

This study has revealed environmental problems that the community is facing and the reason they remained unsolved is discouragement of community involvement. The current environmental problems of Si-Chang Island involve both the community and the local administrative work units, i.e., Si-Chang Municipality and the Si-Chang Deep Seaport Project who must work together to protect the environment and solve the problems. The researcher has recommendations for the research as follows:

1. Forums should be organized as a place where the community living on Si-Chang Island and the executives of the Si-Chang Deep Seaport Project can come together and exchange information, find ways to protect the environment and solve the problems. The local representatives, to start with, should take part in local coordination.
2. A work unit such as Si-Chang Municipality should start playing a role in promoting cooperation between the community and the Si-Chang Deep Seaport Project.

3. The community should be well-educated about OHS (Occupational health and safety), so that they are more aware of environmental problems, and their role of defending and protecting the environment, especially water quality, alluvial soils, garbage and sewage problems so as to avoid long-term impacts.

4. According to the UNCTAD approach (UNCTAD, 1993), the major objectives of a port manager are: (a) efficient economic performance, (b) ecological sustainability, and (c) social equity, the Si-Chang Deep Seaport Project should practice this approach.

5. Environmental problems on Si-Chang Island are partly derived from poor environmental measures, and the lack of knowledge and understanding of protection and maintenance. Si-Chang District Municipality should attempt to find ways to protect the environment and solve the problems. Also, a standard operating procedure of solving environmental problems should be established, and involved persons should be informed to ensure effective cooperation.

6. Besides the problems of dust particles, polluted water and noises, there is another problem of trashes from boats docking and waiting for cargo transfer due to the fact that the maritime area is beyond Si-Chang Municipality’s jurisdiction.

7. The research result showed that the local people changed their careers, so they should be encouraged to embark on professional fishing careers such as fish cage culture and aquaculture.

8. The research result showed that the community did not have a proper understanding about Si-Chang land development. They emphasize on material advancement, which directly affect environmental conservation. Suggestions are that they should have a proper understanding about economic growth, and should not only focus on material advancement and convenience. On the contrary, they should safeguard long-standing culture, traditions, lifestyles and abundance of their local natural resources that are different from other places.

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WS4: 'Supporting small enterprises in implementing OHS management – the role of intermediaries'

Organizers:
Daniel Podgórski, Central Institute for Labour Protection, Poland.
Bo Bager, Capacent, Denmark.

Intermediaries play a crucial role in reaching out to small enterprises, and it is also a complicated and often expensive task to get in touch with the large number of small enterprises. This workshop will therefore discuss the role of the intermediaries and the practical means which can be used in their work with the small enterprises. Relevant topics can for example be:

1) The role of various intermediaries: preventive service, researchers, trade unions, professional organisations, employer's associations, social insurance institutions, OHS experts, media etc. in implementing OHS management in SMEs - case studies

2) Simplified OSH management models adopted to the needs and conditions of SME

3) Practical solutions, guidelines, websites and other IT tools supporting SMEs in implementation of risk assessment and OSH management

4) Training programmes and curricula for workers, employers, trainers, OSH services, consultants etc. focused on OSH management in SMEs

5) Implementation programmes, projects and information campaigns supporting SMEs in OSH management
Presentations, session WS4.1
Chair: Daniel Podgórski (with Bo Bager)

Time: Thursday 22 October, 11.15-12.45
Location: Atrium hall
Abstract:

‘ILO Guidelines on OSH Management Systems’
by Seiji Machida, MSc, Coordinator, Occupational Safety and Management Systems, SafeWork, ILO, Geneva, Switzerland

The OSH management systems approach has become popular in many countries as an effective means to promote safety and health. The ILO Guidelines on Occupational Safety and Health Management System (ILO-OSH 2001) provide a practical framework and guidance on national and enterprise level actions for this approach. In order to reach wide target groups and have greater impacts, the ILO-OSH 2001 calls for the development of tailored guidelines based on the national guidelines on OSH management systems. One of the key target groups is small enterprises.

The development of tailored guidelines for small enterprises would facilitate nation-wide application of this approach. To be effective, it is important to establish a national policy, based on tripartite consultations, on the use of OSH management systems approach as a key element of national OSH strategy and programmes. There is a need for developing mechanisms for supporting the establishment and implementation of OSH management systems particularly for small enterprises.

Such support systems should include the arrangements to improve capacity for risk assessment and taking practical control measures. The national strategy for OSH management systems should also include mechanisms to promote the implementation of OSH management systems such as financial incentives. The ILO guidelines and experiences underline the importance of active worker participation for effective functioning of OSH management systems. Management commitment and worker participation are critical factors for the successful implementation of OSH management system.
ILO Guidelines on OSH Management Systems

Author(s)
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Abstract
The OSH management systems approach has become popular as an effective means to improve safety and health. The ILO Guidelines on Occupational Safety and Health Management System (ILO-OSH 2001) provide national and enterprise level framework and guidance. The ILO-OSH 2001 calls for the development of tailored guidelines for specific targets such as small enterprises. The development of tailored guidelines for small enterprises would facilitate nation-wide application of this approach. It is important to establish a national policy, based on tripartite consultations, on the use of OSH management systems approach as a key element of national OSH strategy and programmes. There is a need for developing mechanisms for supporting the establishment and implementation of OSH management systems nation-wide including small enterprises. Such mechanisms should include the arrangements to improve capacity for risk assessment and taking practical control measures. The ILO guidelines and experiences underline the importance of active worker participation for effective functioning of OSH management systems.

Key words:
ILO Guidelines on OSH management systems, ILO-OSH 2001, worker participation, support systems, risk assessment

Introduction
In recent years, occupational safety and health management systems (OSH-MS) approach has been promoted and implemented in many countries as an effective way to improve working conditions and environment. It is ideal to apply OSH-MS widely including small enterprises. This paper
discusses the OSH-MS approach and its wide application based on the ILO instruments and from a broad perspective of national OSH strategy.

**Decent work – SafeWork**

The magnitude of the global impact of occupational accidents and diseases, as well as major industrial disasters, in terms of human suffering and related economic costs, have been a long-standing source of concern at workplace, national and international levels. Significant efforts have been made at all levels, nevertheless ILO estimates are that about 2.2 million workers die each year from work-related accidents and diseases. Occupational Safety and Health (OSH) has been a central issue for the ILO ever since its creation in 1919 and continues to be a fundamental requirement for achieving the objectives of the Decent Work Agenda.

Although effective legal and technical tools, methodologies and measures to prevent occupational accidents and diseases exist, there is a need for an increased general awareness of the importance of OSH as well as a high level of political commitment for effective implementation of national OSH systems. Efforts to tackle OSH problems, whether at international or national levels, are often dispersed and fragmented and as a result do not have the level of coherence necessary to produce effective impact. There is thus a need to give higher priority to OSH at international, national and enterprise levels and to engage all social partners to initiate and sustain mechanisms for a continued improvement of national OSH systems.

Against this background, Promotional Framework for Occupational Safety and Health Convention (No.187) and Recommendation (No.197) were adopted in June 2006 with a view to promoting systems approach to occupational safety and health at the national level. The texts of the Convention and Recommendation are available at

These standards are also expected to support national tripartite efforts to place OSH high at national agendas and to improve application and ratification of existing ILO OSH Conventions. The management systems approach to OSH is a key concept of these standards and refer to ILO-OSH 2001.
A management systems approach

One of the main pillars for the Global Strategy on Occupational Safety and Health (OSH) adopted by the International Labour Conference in 2003 (full text available at http://www.ilo.org/gb/PROST/en/standard/1981/155/187/3212/155187.htm) is the application of a management systems approach to OSH. A model for such an approach at the enterprise level has been described in the ILO Guidelines on occupational safety and health management systems (ILO-OSH 2001). As suggested in the Global Strategy on OSH, the application of this management systems approach at the national level builds on this concept and related methodology. This approach at the national level is the core element of the Promotional Framework for Occupational Safety and Health Convention (No.187).


ILO-OSH 2001 provides a unique international model, compatible with other management system standards and guides. It reflects ILO values such as tripartism and relevant international standards including the Occupational Safety and Health Convention, 1981 (No. 155). Its application does not require certification, but it does not exclude certification as a means of recognition of good practice if this is the wish of the country implementing the Guidelines.

OSH-MS at the Enterprise Level

Chapter 3 of ILO-OSH 2001 deals with the occupational safety and health management system at the organizational level. The Guidelines stress that compliance to national laws and regulations are the responsibility of the employer. ILO-OSH 2001 encourages the integration of OSH management system elements into overall policy and management arrangements, as well as stressing the importance that at organizational level, OSH should be a line management responsibility, and should not be seen as a task for OSH departments and/or specialists.

The OSH management systems in the organization has five main sections which follow the internationally accepted Demming cycle of Plan-Do-Check-Act, which is the basis to the “system” approach to management. These sections are namely Policy, Organizing, Planning and implementation, Evaluation and Action for improvement.
Policy contains the elements of OSH policy and worker participation. It is the basis of the OSH management system as it sets the direction for the organization to follow. Organizing contains the elements of responsibility and accountability, competence and training, documentation and communication. It makes sure that the management structure is in place, as well as the necessary responsibilities allocated for delivering the OSH policy. Planning and implementation contains the elements of initial review, system planning, development and implementation, OSH objectives and hazard prevention. Through the initial review, it shows where the organization stands concerning OSH, and uses this as the baseline to implement the OSH policy. Evaluation contains the elements of performance monitoring and measurement, investigation of work-related injuries, ill-health, diseases and incidents, audit and management review. It shows how the OSH management system functions and identifies any weaknesses that need improvement. It includes the very important element of auditing, which should be undertaken for each stage. Action for improvement includes the elements of preventive and corrective action and continual improvement. It emphasizes the need for continual improvement of OSH performance through the constant development of policies, systems and techniques to prevent and control work-related injuries, ill-health, diseases and incidents.

**National occupational safety and health management system framework**

Action at national level includes the nomination of (a) competent institution(s) for OSH-MS, the formulation of a coherent national policy and the establishment of a framework for an effective national application of ILO-OSH 2001. The National Policy for OSH-MS should be formulated by competent institution(s) in consultation with employers’ and workers’ organizations, and should consider:

- Promotion of OSH-MS as part of overall management
- Developing mechanisms for wide application
- Avoiding unnecessary bureaucracy, administration and costs
- Support by the government inspectorate and other OSH services

The functions and responsibilities of institutions involved should be clearly defined as well. While different approaches could be taken reflecting local needs and practices, it is important to decide whether regulatory approach will be taken or not for wide application of OSH-MS, whether third-party certification will be promoted or not, and what incentive measures to be taken.
Figure 1 of the Guidelines describes the elements of the national framework for OSH managements systems.

**Figure 1.**

<table>
<thead>
<tr>
<th>ILO guidelines on OSH-MS</th>
<th>National guidelines on OSH-MS</th>
<th>OSH-MS in Organizations</th>
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**Wide application of OSH management systems particularly to small enterprises**

An essential aspect of effective implementation of OSH-MS as a part of national OSH strategy is the arrangement for wide application of OSH-MS including small enterprises. As small enterprises have difficulties in securing enough human and financial resources, it is important to provide supports and incentives for the application of OSH-MS. If a country opt to place a legal requirement for implementing OSH-MS in small enterprises, that would provide a basis for nationwide application. However, the requirements should be specified reflecting the existing capacity of small enterprises.

Regardless of the national decision to take regulatory approach or not, it is important to develop tailored guidelines on OSH-MS for small enterprises supplemented by practical guidance. While practical tailored guidelines will provide a ground for wide application of OSH-MS, a series of support mechanisms and programmes are required for effective implementation of OSH-MS in
small enterprises. These could include training, technical support, financial support, incentive schemes, and sharing of best practices.

Training on OSH-MS
Commitment of top management and worker participation are critical factors for successful implementation of OSH-MS. In this connection, training of both management and workers are necessary. It is important to have proper understanding of the OSH-MS approach as well as key elements of the system particularly risk assessment and taking preventive measures. These training could be integrated into existing training courses/requirements such as Safety Officer training, Safety Representative training, and OSH supervisors training. Further the development of training courses/programmes for OSH-MS, risk assessment, OSH-MS auditors should be considered.

Technical Support
For effective implementation of OSH-MS, it would be useful to make available technical support services on various aspects of OSH. Among others, technical support could be provided on the setting of OSH-MS, risk assessment and prevention measures as well as training of people involved in OSH-MS at the enterprises. The establishment of nationwide network of technical support services on OSH-MS is important particularly for small enterprises. Such support services could be provided by government institutions or private service providers.

Financial Support
In order to promote the application of OSH-MS approach nation-wide, the government may consider the provision of financial support particularly to small enterprises. Such a support could take the form of subsidy for participation in OSH-MS training courses and for obtaining technical support on OSH-MS. In a number of countries, some kind of financial support has been introduced particularly at the initial stage of OSH-MS introduction. Those enterprises obtained supports could become model workplaces for the effective use of OSH-MS.

Incentives
As a means to promote the application of OSH-MS, many countries have introduced incentives such as exempting government OSH inspection for enterprises which have effective OSH-MS, exempting certain legal obligations on OSH, reducing work injury insurance premium, and official
recognition of establishing sound OSH management system at the workplace. Proper implementation of OSH-MS is also often considered as preconditions for national awards on OSH.

Sharing Best Practices
With a view to promoting wide application of OSH-MS, it is essential to share successful implementation of OSH-MS. This could be arranged through presentations at OSH conferences, web-pages, integration of success cases in training materials, and special OSH awards. In addition to the sharing of best practices on OSH management systems, we should promote the exchange of experiences on various elements of OSH management systems such as formulating OSH policy, worker participation, risk assessment, practical prevention measures, and economic benefit obtained through OSH improvements.

Conclusions
The OSH management system approach facilitates continuous improvements in the performance of safety and health programmes at the enterprises. Thus wide application of this approach is critical in order to improving national safety and health conditions. In this connection, the extension of application of OSH-MS to small enterprises is essential as majority of workplaces are small. Together with the development of tailored guidelines on OSH-MS for small enterprises, strategic provision of support services to small enterprises and the arrangement for incentives and sharing best practices are necessary for effective implementation of OSH-SM.

References
WS4.1-2 Abstract:

‘Contractors and developers in the building industry: A dog in a leash or?’
by Per Langaa Jensen, Professor, Department of Management Engineering, Technical University of Denmark, Lyngby, Denmark
Susse Laustsen, Architect, MAA, Ph.d, Senior Project Manager, COWI, Lyngby, Denmark
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To include requirements to OHS in the call for tenders has been a strategy to improve OHS performance in contracting enterprises. Following the guidance for public developers in Denmark, which was passed in 2003, the labour market parties of the building industry made an agreement to motivate public developers and their consultants to formulate requirements to OHS. Such requirements, however, might be a constraint for small contractors, who are not familiar with OHS management. This study thus analyses the effects of these OHS requirements for small contractors.

Twenty case studies were selected: ten where requirements to OHS were formulated by the developers and ten where no OHS requirements were formulated. In all twenty cases interviews were conducted with the developers to understand the rationale behind formulating or not formulating OHS requirements in the tender materials. In those cases where OHS requirements were formulated 15 small contractors were interviewed. The focus of the interviews was on barriers for fulfilling the formulated requirements and for implementing the requirements. Focus was also on the developers’ possibilities for assisting the contractor in assuring compliance with such requirements.

The data shows that small contractors value that developers give priority to OHS and ensure compliance. Both developers and contractors support a pro-active approach to OHS as such approach implies a better and safer construction site.

In the analysis, the developers were classified into three ideal types according to their approach to OHS management: the interested and engaged developer, the compliance developer and the ‘others know better’ developer. This classification forms the basis of a theoretical discussion drawing attention to the relation between the developer and the contractor, type of reactions among contractors and an organizational understanding needed in the organization of developers in order to achieve results.

In relation to practice, the results from the study comprise a set of tools to be applied to include OHS in tenders and contracts. Finally, the theoretical analysis contributes with a conceptual frame for strategizing within this field.
Paper

Sub-contractors and developers: A dog on a leash or?

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Abstract
Including OHS requirements in the call for tender has been a strategy to improve OHS performance in contracting enterprises. Following the guidance for public developers, which was passed in 2003, labour market parties in the building industry agreed to encourage public developers and their consultants to formulate OHS requirements covering the construction process. The purpose was to improve OHS on building sites. Such requirements, however, might put pressure on small sub-contractors, who may not be familiar with OHS management. This study analyses the effects of OHS requirements on small contractors.

Twenty case studies were selected: ten where OHS requirements were formulated and ten where no requirements were formulated. In all twenty cases, interviews were conducted with the developers to understand the rationale behind formulating or not formulating OHS requirements in the tender materials. In those cases where OHS requirements were formulated, 15 small contractors were interviewed. The focus of the interviews was on barriers against utilizing such requirements and implementing the requirements. The contractors were also asked about what assistance would be helpful to them in formulating and assuring compliance with such requirements.

The data shows that small contractors value developers giving priority to OHS and ensuring compliance. Both developers and contractors support a pro-active approach to OHS as such an approach results in a better and safer construction site.
In the follow-up analysis, the developers were first divided into three types according to their approach to OHS management: the interested and engaged developer, the compliance developer and the ‘others know better’ developer. This classification forms the basis of a theoretical discussion drawing attention to the relationship between the developer and the contractor, the types of reaction among contractors and the organizational understanding needed by developers in order to achieve results.

The results of the study include a set of tools that can be applied to include OHS in tenders and contracts. Finally, the theoretical analysis provides a conceptual frame for strategizing within this field.

**Key words**
Building industry, OHS requirements, tender

**Introduction**
Generally, the construction industry is a high risk industry, this has been documented both on a national and international level. In Denmark, more than 5000 work-related accidents are reported annually in the construction industry, equalling 27 accidents per 1000 people employed in the construction industry (Arbejdstilsynet, 2007; Jørgensen, 2008). Of these accidents, 700 are serious accidents and on average 10 are fatal accidents. Agriculture and the construction industry are the two industries in Denmark that experience the highest number of fatal accidents. Available data show equivalent results for Europe, Australia and the United States (Mayhew and Quinlan, 1997; Mayhew, 2002; James et al., 2007). Disease in the construction industry shows similarly high figures, the major contributors being injuries to the musculoskeletal system, hearing damage and damage from working with substances and materials.

The root-causes are well known. The construction industry is a project-based industry that acts in a dynamic and changing environment (Lindgard & Rowlinson, 2005). Construction is often characterized as"meaningful chaos" (Kristensen & Nielsen, 2001), resulting in a building or plant being built. Construction involves many actors who may be combined in many ways according to the individual building project. Projects are often one-of-a-kind products, on-site production under the influence of the weather, and changing co-operation from project to project (Kristensen &
Another characteristic is the traditional separation of design and execution functions in construction. All these different factors contribute to the special nature of building projects. Especially during the execution of the building project, problems occur on a day-to-day basis, requiring quick, decentralized solutions by means of ongoing planning and adaptation of an organic organization. This creates a free, independent culture with construction workers and building managers, who traditionally have a more free relation with the authorities and to legislation (Lindgard & Rowlinson, 2005).

In Denmark, the construction industry consists of 30,000 enterprises, employing between 180,000-200,000 people. The industry consists of a few large enterprises and a number of SMEs, of which 84.5% have less than 10 employees, 14% have between 10-50 employees, 1% between 50 and 100 employees, and only 0.5% have more than 100 employees (Danmarks Statistik, 2009). One of the reasons for this dispersion is the nature and need for flexibility of the construction industry. Part of the reason, at least in Denmark, is a structural problem caused by the economic factors in the competitive contract award procedure, entailing most work in the construction industry being put out to tender. The structure and the way contracts with contractors are organized fundamentally impact the need for flexibility in the construction industry, but this structure is also pointed out as the reason for many work site safety problems, because these are related to sub-contractors' performance and casual ad hoc connection to the specific building project. The presence of sub-contractors is often pointed out as a significant factor of the poor safety results in the construction industry (Lindgard & Rowlinson, 2005).

The way an invitation to tender focuses on price rather than, for instance, safety activities contributes to contractors not counting in expenses of safety activities (Brooks, 1993). Even though the requirements in the contracts are set to take pricing of safety and health into consideration, it is rarely part of the preliminary work in the construction industry (Oluwoye & MacLennan, 1994).

Most construction projects are put out to tender in competition and the lowest tender is usually accepted. Sub-contracting is typically a payment-by-results system where payment is based on a certain amount of work completed, rather than the time spent on the project. Consequently, if the tasks are to be completed in the shortest possible time, this leads to sub-contractors pushing themselves hard, working excessive hours or cutting corners in regard to safety (Mayhew, Quinlan...
and Ferris, 1997). As a consequence, this competitive contract award procedure puts pressure on small enterprises, forcing them to submit low prices in order to win the competition, and at the same time this pressure often leads to for the parts of a tender covering safety work and equipment being omitted (Brook, 1993; Lindgard & Rowlinson, 2005). Evidence suggests that industries in which sub-contracting and self-employment are common have an especially high frequency of serious injuries and fatalities (Mayhew, Quinlan and Ferris, 1997).

Contractors’ special OHS problems are stressed:

1. Many of the projects put out to tender go to smaller organisations, which usually have less sophisticated management systems.
2. Problems can arise with regard to the coordination of safety management in situations where contractors and temporary staff work in physical proximity to in-house personnel.
3. This inter-organisational contracting can have a detrimental impact on collective communication.
4. Associated commercial contracts can potentially limit the ability of organizations to invest in safety and health measures because the jobs are put out to tender.

It is important to note that small businesses may have limited resources to invest in OHS measures, including limited management time and resources to train and follow up staff and also limited resources to purchase new equipment to be used on site. At the same time, the small enterprises possess limited expertise and logistic resources. This tends to counter the awareness of safety and health problems and knowledge of legislation and preventive measures is limited. Also, awareness of the costs of serious accidents is quite limited and at the same time, there is a tendency to blame the individual employee when something goes wrong (Mayhew, 2002).

Similar, strong evidence shows that the coordination of safety at work sites housing several sub-contracts, can become problematic, due to diffusion of over-all management control and responsibilities (James, Johnstone, Quiland & Walters, 2007).

Studies also show that tenderers are generally unaware of whether risk assessments have been carried out by sub-contractors and that the exchange of OHS information between agencies and host employers is very limited (Wiseman & Gilbert, 2000). There is also evidence that the market relationship between the different organizations involved in supply chains can lead to situations
where the major and financially stronger parties secure financial contractual terms that can detrimentally affect the management of OHS in those organizations with whom they contract (James, Johnstone, Quiland & Walters, 2007). In a study of OHS in small enterprises, a number of the owners reported how their ability to invest in OHS was limited by narrow profit margins that they were operating under as a result of the contract prices demanded by larger developers (Vickers, Baldock, Smallbone, James, 2003). The result is that whereas most major construction enterprises have produced specific safety manuals, information and programmes for sub-contractors, this has little or no discernible effect on the safety and health awareness and attitudes of sub-contractors (Mayhew, Quinlan, Ferris, 1997).

A survey in Australia on sub-contractors’ influences on the OHS system found that the patterns of injuries reflected the specific hazards and risk exposures found within each of the groups studied. However, these hazards and risks were exacerbated for many sub-contractors in line with the intensification of their labour following economic pressure and survival prerogatives (Mayhew, Quinlan, Ferris, 1997). The investigation results are as follows:

1. The motor of economic rationalism which is the necessity of under-cutting prices to win tenders and the increasing need for a more flexible labour force has resulted in more and more jobs being outsourced. Most importantly, both financial and safety and health risks can be outsourced. At no point in the study did the investigator encounter evidence that safety and health was perceived as a good economic investment.

2. The increasing fragmentation of workplace management which results from contracting also poses major safety and health risks. In the building industry, for example, verbal abuse between contractors can be seen as a direct consequence of crowding, disorganization and poor scheduling of work.

3. The inadequate regulatory controls, where it is difficult for the authorities to visit the many different small enterprises and the many construction sites within the relatively short lifetime of the project, i.e. the period for the construction.

A debate about why the construction industry operates with a profound fragmentation into subsuppliers and sub-contractors leads to two primary arguments (Winch, 2008):
• Some argue that this is the result of a decision on a cost issue, which is sought minimized through maximisation of flexibility in order to cope with the uncertainties in the resources required for a particular project.

• Others argue that it is a result of a production cost problem, driven by specialization to achieve production efficiency through economies of scale and learning curve.

The consequences are high-risk OHS which is difficult to manage, control and coordinate at sites.

To regulate this situation, a legislative initiative was introduced by the “Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum OHS requirements at temporary or mobile construction sites "in order to emphasize the role of the developer, and hold him or her liable for the formulation of a plan for safety and health at the building site". Inspired by experiences from major, trendsetting construction projects in Denmark (the bridge between Sweden and Denmark, the Copenhagen Metro and construction of new premises of the Danish Broadcasting Corporation), the Danish Association of Construction Developers (DACC), The Danish Association of Consulting Engineers (FRI), the Danish Association of Architectural Firms (DANSKE ARK) and the Branch OHS Council for Construction agreed upon a shared declaration of values in relation to OHS for partners involved in management of construction.

With a shared set of values, the parties along with the authorities wish to take on joint responsibility for making building and civil engineering work sites some of the safest in Denmark. Thereby, the parties agree that individually and together, based on the OHS Act, they will encourage their members to fulfil the recommendations listed in the set of values.

**Research Question**

The purpose of this study is to examine how this strategy works in practice in order to contribute to the developer's OHS requirements having the most impact on small construction enterprises. In other words, the study examines:

1. What factors motivate and limit, respectively, the developer and his consultant in setting OHS requirements?

2. How do small enterprises in the civil engineering industry perceive OHS requirements formulated by developers?
3. How do OHS requirements affect small enterprises in the civil engineering industry when they are to bid on a tender and carry out the assignment?
4. Do small enterprises experience specific obstacles that make it harder for them to fill motivated to fulfill the requirements for obtaining a better working environment?
5. Is it possible to minimize these barriers, for instance through changed wording of OHS requirements and documentation requirements?

Methods
This study is based on 20 cases, of which 10 focused on developers listing OHS requirements in the tender documents, and 10 involved developers that do not include OHS requirements. The composition of developers involved in the study is shown in Table 1.

<table>
<thead>
<tr>
<th>Developer characteristics</th>
<th>Developer type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developers that set OHS requirements</td>
<td>Private production enterprise</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Government institution</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Municipality</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Private developer, partially government owned</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Development enterprise, owned by state and municipality</td>
<td>1</td>
</tr>
<tr>
<td>Developers that do not set OHS requirements</td>
<td>Developer - private chain store</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Developer</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Non-profit housing association</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Municipality/municipal utility enterprise</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Property enterprise in independent institution</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Private property enterprise</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 6 Overview of interviewed developers that do and do not set OHS requirements
The case studies included visits to the developers, interviewing key persons responsible for both formulating tender documents, specifying OHS requirements and for checking that the contractor hands over the required documentation and that the requirements are met on the building site. In addition, 1-2 small construction enterprises in each case (a total of 15) were interviewed about their OHS documentation during the bidding phase and during execution of the building project, as well as their OHS work and their assessment of the resulting site OHS etc.

Interviews were qualitative, guided by an interview guide structured by the themes relating to the basic purpose of the study. No studies were made of the OHS of the specific building sites, so the statements on OHS work and OHS conditions at the site are based solely on the statements of the interviewees.

When selecting small construction enterprises for interviews, the intention was to choose primarily enterprises with fewer than 10 employees. This turned out not to be possible as major developer organizations often set OHS requirements, and they rarely contract with small contractors. Five of the contractors interviewed have 10 or fewer employees, whereas two thirds of the contractors interviewed have 20 or fewer employees. Similarly, the intention was to select contractors with a direct contract with the developer rather than contractors that are sub-contractors under a lead or turnkey contractor, who has a contract with the developer. In three cases, we have had to interview the sub-contractor. Size and composition of contractors is shown in Table 2.
<table>
<thead>
<tr>
<th>Contractor type - discipline</th>
<th>Number of employees</th>
<th>Construction contractor 1)</th>
<th>Sub-contractor 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mason</td>
<td>2,5</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Painter contractor</td>
<td>5</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Carpenter</td>
<td>7</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Carpenter and construction management contractor</td>
<td>9</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Self-employed carpenter</td>
<td>10</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Demolition contractor</td>
<td>15</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Sun protection and glass coverage contractor</td>
<td>From 11-20</td>
<td>15-20</td>
<td>X</td>
</tr>
<tr>
<td>Soil and civil engineering contractor</td>
<td>15-20</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Self-employed carpenter</td>
<td>20</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Scaffolding contractor</td>
<td>20</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Electrician</td>
<td>24</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Equipment and building contractor</td>
<td>From 21-30</td>
<td>25</td>
<td>X</td>
</tr>
<tr>
<td>Civil engineering contractor</td>
<td>25-30</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Asbestos contractor</td>
<td>From 31-50</td>
<td>43</td>
<td>X</td>
</tr>
</tbody>
</table>

1) Construction contractors work under direct independent contract with the developer.
2) Sub-contractors work under a lead contractor who has a contract with the developer.

Table 7 Overview of interviewed contractors and number of employees

Results

Based on the cases and how developers act when handling OHS requirements during the bidding and execution phases, we see different characteristics, which makes it possible to group the
developers interviewed into the following the typical developer types or ideal models on which we will base our theory founded analysis:

- **IED: The Interested and Engaged Developer**, that is, developers who focus on OHS, who know how to formulate requirements, and who are committed in this field.
- **CD: The Compliance Developer** who prioritizes that rules are respected.
- **OKB: Developers** who believe that Others Know Best regarding OHS, for which reason others and not the developer should handle safety and health interests.

**Ideal type 1: the interested and engaged developer (IED)**

IED greatly focuses on safety on building sites and set safety requirements beyond what is stipulated in the law. Experience with safety, accidents and incidents play an important role for IED and experience is passed on in the safety work. The following quotation illustrates the general attitude towards safety:

"Without any awareness of safety on the part of the individual worker and his manager, bad work habits and OHS conditions will develop, potentially leading to personal injuries and reducing quality and productivity".

Requirements are set regarding written documentation on OHS already during bidding, e.g., on OHS policies, safety organization, accident and incident management, training of employees and statement of critical works. Alternatively, some IEDs choose to approve in advance the construction enterprise before permission to work for the developer is granted. The pre-approval may, e.g., follow a set frame, where the contractor is to describe how he handles 11 different OHSal issues (GES system).

IEDs have the following opinions on written documentation during the tendering phase:

- It is difficult for small enterprises to provide documentation.
- The contractor's OHS on site does not depend on the size of the contractor, rather the enterprise culture matters.
- When the developer helps the small enterprises, they can contribute with information.
It is IEDs’ experience that if the developer helps the small enterprises, it is also possible to obtain the requested documentation. For instance, an IED has set up a GES light where the developer through visits at the developer and meetings assists in finding or preparing the relevant documentation. Furthermore, IED points out that it is important to simplify the required documentation, e.g., by using check forms etc.

IEDs have specific OHS requirements to the contractor's work during execution, and there is a fixed routine for incorporating the requirements in the tender documents. IEDs impose the same OHS requirements, regardless of the contractor being large or small.

It is the experience of IEDs that OHS requirements affect the OHS work of the contractor and the OHS conditions at the site. One IED says:

"Employees of the contractor that work with us have a much lower frequency of accidents than employees at the contractors working at other sites".

Written documentation is required, such as preparation of work procedures and work permits, documentation of model rounds, reporting of accident, near-accidents and incidents, course diplomas etc.

At an IED work site, the developer sees to it that his own OHS organization ensures that the determined OHS requirements are fulfilled, e.g., through his own safety or building manager. The developer's organization arranges or participates in safety rounds and is in direct dialogue with the contractor. The developer organization is in charge of the safety meetings, and introduction courses are often arranged for new employees at the site. At some developers, meetings are arranged in order to exchange experiences on OHS with all the different small enterprises at the site.

"We use good examples towards the contractors and gather experience that are passed on at meeting with all the small contractors and workmen."
**Contractors' opinions**

The small contractors working at IED generally believe that it is okay for the developer to require written documentation as long as there is not too much paperwork. The small contractors agree that it is easier for the large contractors to provide written documentation as they have administrative staff to do the job. The small enterprise has a master, who has to use weekends to prepare the paperwork.

The small contractors agree that the requirements made by the developer affect both the OHS work of the contractor - papers are organized, workplace assessments etc. - and the OHS conditions at the developer's sites. Several of them believe that it has generally improved OHS conditions at the contractor, even when working for developers that do not set OHS requirements.

**Ideal type 2: rules are respected (Compliance Developer, CD)**

To CDs, the most important OHS requirement is that the health and safety at work act is abided by. In the cases reviewed, it is also stated that CDs in their safety work on site are very focused on the safety for customers, tenants or third parties being kept at a high level.

CDs do not set requirements to written documentation of the contractor's OHS performance in the tender documents. The contractor's OHS performance is not a direct indicator that is rated during selection of contractor. However, an indirect assessment is made of the contractors working for the developer. Most CDs say that if a contractor on a project for the developer does not meet the required OHS conditions, he will not be allowed to make a bid the next time.

"*In reality, there is no way of checking out the tenderers in advance, but we believe that it is possible to fix it if something goes wrong during the execution phase.*"

The successive consultants of the CDs choose what specific OHS requirements are set in the specific tender, and often it is the responsibility of the architect/consultant that follow-up is carried out. There are no or few requirements to documentation of OHS condition during execution - for instance, proof of OHS training or reports on accidents may be required at the safety meeting.
A CD follows up on whether OHS conditions are acceptable by means of supervision and leave it to the contractor or a consultant to ensure safety coordination. The developer stays in contact with the contractor at building meetings where safety issues are addressed. No conscious feedback on experiences with good OHS examples is made.

"It is part of the supervisors' job description to interfere with OHS conditions if necessary."

**Contractors' opinions**
The small contractors working with CD generally believe that it is okay for the developer to set OHS requirements, but these requirements must also apply to the developer and his consultants. Too often does the consultant or developer ask for solutions that entail a poor OHS for those carrying out construction work.

It is a widespread wish that OHS requirements be described in-depth in the tender documents, so that the contractor knows what he is bidding on. Agreement lacks on whether CDs' OHS requirements influence the OHS work or OHS conditions at the site. Some contractors believe they influence the OHS at the specific site, but nowhere else, whereas others do not believe that they influence the OHS - "the health and safety at work act must also be abided by."

**Ideal type 3: others know best (OKB)**
OKBs do not set requirements to OHS in their tender materials or contracts and thus do not rate their contractors directly on OHS performance. Many OKBs have a permanent range of contractors that are invited to bid, and should any problems arise with a contractor, he will not be allowed to bid the next time - for instance, problems with following the health and safety at work act.

Thereby, OKBs do not set requirements that the contractor is to provide written OHS documentation, e.g., safety records or work procedures.

In general, OKBs believe that the OHS conditions at the developer's sites are good and expect the contractor to seriously work on OHS. OKBs believe that large contractors are better at abiding by the health and safety at work act than the small.
All interviewed OKBs are familiar with their developer responsibilities regarding OHS - however, not all agree that it is fair. OKBs believe that the contractor at the site know the OHS conditions and leave it to him or his consultant to handle safety issues on behalf of the developer.

OKBs are represented on site through their consultants and contractors and learn about safety at building meetings. Some OKBs believe that it is the obligation of the National OHS Authority to check if the health and safety at work act is respected on sites.

*Distribution of the three ideal models*

Table 3 shows how the 20 cases are distributed between the three ideal models.

<table>
<thead>
<tr>
<th>Developer characteristics</th>
<th>Developer type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IED</td>
<td>Private production enterprise</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>One time developer - government institution</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Private developer partially government owned</td>
<td>1</td>
</tr>
<tr>
<td>CD</td>
<td>Government institution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Municipality</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Development enterprise, owned by state and municipality</td>
<td>1</td>
</tr>
<tr>
<td>OKB</td>
<td>Developer - private store chain</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Developer</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Non-profit housing association</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Municipality</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Property enterprise in independent institution</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Private property enterprise</td>
<td>1</td>
</tr>
</tbody>
</table>

*Table 8  Distribution of developers between the three ideal models.*
IEDs are typically either developers with a production in which high requirements are made regarding supervision of the production process, e.g., featuring high requirements to safety and quality. Or IEDs are developers who, due to image considerations, wish to profile themselves as encouraging OHS and a high safety level.

CDs are public developers, both government and municipal - often with several experiences of acting as developer. It is a political wish that state developers set OHS requirements. The developer guideline for government developers outlines how the government developer should handle his role regarding OHS, e.g., by ensuring that OHS conditions are clearly stated in the contract basis.

OKBs comprise both private and public developers as well as investment enterprises and developers. Typically, OKBs are aware that poor OHS can damage their image, and many stress that OHS is important to their enterprises, and that the worst thing would be to be on the front page due to poor OHS.
### Table 9  The three ideal models for developer management of documentation and OHS requirements

<table>
<thead>
<tr>
<th>Developer type</th>
<th>OHS requirements</th>
<th>IED</th>
<th>CD</th>
<th>OK B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bidding phase: Requirements to written documentation of the contractor's OHS performance:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Pre-approval of contractor</td>
<td>X</td>
<td>(X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written documentation is to be included in bid, such as OHS policy, safety record, OHS certification, training, workplace assessments etc.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• OHS is a criterion for selection of contractor - this counts for a certain percentage in the selection</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No requirements to written documentation during bidding phase</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Scope and level of detail of the developer's OHS requirements in the tender documents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written formulation of special OHS requirements that go beyond the requirements of the health and safety at work act.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written formulation of requirement that the health and safety at work act must be observed - some requirements are specified in plan for safety and health.</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written formulation of requirement that the health and safety at work act must be observed.</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No written requirements to observance of the health and safety at work act</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Execution phase: Requirement to written documentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written documentation in the form of safety records, incidents, safety data sheets, model rounds, completed safety training, substitution considerations etc.</td>
<td>X</td>
<td>(X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Written formulation of some OHS issues, e.g., workplace assessments, accidents etc., before work is commenced.</td>
<td>X</td>
<td>(X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Oral documentation of incidents, accidents, safety planning at building and safety meetings.</td>
<td>X</td>
<td>(X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• No requirements to documentation - is to be handled through the contractor's self-policing.</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Table 9 illustrates how, respectively, IEDs, CDs and OKBs deal with documentation, both during the bidding phase and during execution of the building project. The table also shows the scope of the developer's OHS requirements and level of detail.

Above, we have chosen to characterize our 20 cases by means of three ideal models, but if we dig deeper, we can see a trend that a few of the characterized CDs are moving up, being similar to IEDs. In one case, we saw a very extensive requirement to written documentation and requirements to follow-up during the execution phase. In another case, we saw how the developer's appointed safety manager on a daily basis communicates and helps the small contractors make their OHS routines work. In Table 9, this is indicated by an (X) and purple colour (a mix of red and blue). Where we see the most movement is in the OKB group. In this group, half of the developers interviewed state that they generally intend to set OHS requirements in their future tenders and contracts.

In one case, the developer chose to check and follow up on OHS on his sites, and hired a consultant to carry out OHS inspections according to the principle of model work site every two weeks. The consultant is authorised to shut down sections of the building site until conditions are acceptable. In case of repeated, unacceptable conditions, meetings will be held at the top level to improve conditions. This is shown in Table 9 with an (X) and orange colour (a mix of red and yellow).

However, some OKBs say that they will never set OHS requirements - that it is the responsibility of the consultants and the contractor to observe the law, and both the National OHS Authority and the trade associations set OHS requirements.

**Does OHS impact price, quality and the number of tenderers?**

In our case study, we have asked developers that do not set OHS requirements as well as contractors about their attitude towards whether OHS affects quality. We have also asked all developers and contractors about the influence of OHS on price and on who bids. Not everyone answered the question.
Table 5 provides a summary of the answers received, distributed between the three ideal models and contractors.

<table>
<thead>
<tr>
<th>Contract elements affected by OHS requirements</th>
<th>IED developer</th>
<th>CD developer</th>
<th>OKN</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements increase the price</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Requirements decrease the price</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Improvement of quality</td>
<td></td>
<td></td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>The number of tenderers is decreased</td>
<td>1</td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do not affect the price</td>
<td></td>
<td></td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>No improvement of quality</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>The number of tenderers is not changed</td>
<td>3</td>
<td>6</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Do not know</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether price is affected</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Whether quality is affected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whether the number of tenderers is affected</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10  The influence of OHS on quality, price and the number of tenderers.

The influence of OHS on quality

Out of nine developers that do not set OHS requirements, eight believe that OHS improve the quality at the building site and of the end product. Once cleaning and tidying up is organized and access routes are well-defined, materials are also managed, and the possibility of carrying out the job with excellent quality is increased, just as waste is minimized.

Contractors agree with developers that excellent OHS improve quality. Out of seven contractors that answered the question, five believe that quality is improved.
**The influence of OHS on price**

Small contractors have no doubts when asked whether OHS requirements influence price. Ten out of fourteen that answered the questions believe that OHS influences price, and that it is increased. More administration and more paperwork are requirement to fulfil the OHS requirements set, and increased investments in more OHS friendly equipment are required.

However, developers disagree whether OHS requirements increase or lower the price. In case of the engaged developer (IED), three out of four believe that the price of the building project increases. The argument is that requirements to increased safety means that work takes more time, and that more time must be spent on planning. Whether the overall economy of the project increases, we have not looked into, but this could be an interesting topic for new projects to delve into.

In case of CDs, half of the interviewees believe that OHS requirements do not influence the price of the building project - the health and safety at work act must always be observed regardless - whereas one developer believes that the price increases, and one believes that the building project becomes cheaper.

In the case of developers that do not set OHS requirements (OKB), half believe that OHS requirements do not influence price, whereas two expect an increased price, and one expects the project as a whole to become cheaper.

**OHS requirements on small enterprises' willingness to bid**

Nine out of fourteen contractors reply that they believe that fewer small enterprises will bid on jobs, when OHS requirements are set - in particular given the boom at the time of the interview. As mentioned, one of the reasons is that it is more troublesome and demanding to work at a developer that focuses on excellent OHS and wants written documentation.

Regardless of their type, the majority of developers do not believe that requirements to OHS in tender documents stop small contractors from bidding.
Discussion

Our study is based on a limited number of cases (20). One of our ambitions is to make a number of recommendations for how to establish processes between developers and small contractors with a view to developing excellent OHS at work sites. In order to do this based on the relatively small number of cases, a theory based analyses of these cases can provide an in-depth understanding. In the following, we will:

- Examine the motives for including OHS in the contract between developers and contractors,
- then, analyse how the relation between developers and contractors must develop in order to support the ambitions, and
- finally, analyse the requirements to competences that are set to the OHS manager of the developers, if the relation between developers and contractors is to develop positively from an OHS perspective.

Motives for OHS elements in contracts

Analyzing the cases, we are able to - as mentioned in previous sections - set up three ideal models for how developers deal with working with OHS as an element of the contracts between developers and contractors. The three types are:

- IED: The Interested and Engaged Developer, that is, developers who focus on OHS, who know how to formulate requirements, and who are committed in this field.
- CD: The Compliance Developer who prioritizes that rules are respected.
- OKB: Developers who believe that Others Know Best regarding OHS, for which reason others and not the developer should handle safety and health interests.

The latter developer does not include OHS in contracts, expecting other actors - first and foremost the National Working Environment Authority to handle this. Several of the developers interviewed expect enterprises to also work seriously on OHS. But this element is not put down in formal, written agreements.

Among the first two types of developers, it is implicitly expected that the interest in OHS spreads like ripples in a pond. This entails the expectation that requirements to OHS spread through the
supplier chain. Case enterprises are small contractors, and it may therefore be expected that they are at the bottom of the production chain. However, it was not our impression that requirements to OHS are spread in the supply chain. Typically, a specific requirement is "only" attached to the immediate relation between developer and contractor.

In the group of developers entering into agreements on OHS, several motives exist for including such requirements in an agreement. First of all, the aim of maintaining legitimacy in society is stressed. The objective is to appear as a decent or great developer who generally behaves properly, also in relation to own or contractors' employees. This is not only done to avoid negative media attention, but also to appear to be an enterprise that is a great place to work. Secondly, quality is stressed. They want to be known for doing a great job. In this connection, the developers state that a sound work place in terms of OHS is a key element in ensuring good quality work. Lastly, the enterprises are aware of the economy of making such requirements. Several - but not all - state that requirements at first glance entail increased costs. But at the same time, they find that many work place processes run a better and easier course. Consequently, it is their assessment that a total economic assessment would show that the costs of the building project are not increased significantly. At the same time, they point out that their accounting systems are built in a way to only register costs and not economic benefits throughout the entire construction period. As such, the effort is based on attitudes, rather than calculations.

In the group of contractors, two advantages of entering into this kind of contracts are highlighted. First, the contracts in question are often great, long-term contracts, and second, they entail an improvement of or small boost in how the small contractor plans and manages work.

How does the relation from market to network function?

The theoretical starting point for incorporation OHS aspects in contracts is a principal - agent understanding (Nygaard, 2006). The principal wants a job to be done, but is not able to do so himself, either due to resources (time and economy) or due to lack of competences. Therefore he contacts an agent who is able to and willing to do the job for him or her. In this context, the interest of the principal is to ensure that the agent acts in the interests of the principal, rather than solely pursuing him own interests. The solution regarding the issue of interest is sought through a contract that determines the relationship between the agent's services and the resulting reward. The services
may be determined in terms of the result (a result contract), or in terms of how the service is produced (a behaviour contract). At the same time, there is an asymmetry in information between agent and principal. The principal does not possess exhaustive information on the agent's activities and is unable to obtain such information by a reasonable amount of effort. Regardless of the contract type, the principal will therefore have to check if the contract is performed.

Most often, OHS requirements are incorporated as behavioural requirements. A safety organization must be established with the purpose of preparing OHS plans, carrying out inspections etc. Within the group of developers including OHS aspects in contracts, the check function is neglected by many. This is the group designated CD. It is determined what requirements must be fulfilled, but no follow-up is done to ensure that it is carried out in practice. Thereby, the requirements quickly lose value compared to the concrete OHS effect.

Second, there is no competence symmetry between developers and small contractors. Often, contractors do not know how to actually fulfil the requirements. Therefore, some developers compensate by hiring another, supplementary agent (an enterprise) to check the first agent (the contractor). In this way, the developer tries to control both agents by means of contracts (typically behaviour contracts). But the relation between the two agents is not clearly specified. This entails special requirements for the check agent regarding great pedagogical insight and ability to balance between dialogue and guidance and check and reports to the principal when problems are identified.

In the group of developers termed IEC, it turns out, though, that the principal - agent model does not capture the essence of the relation between developers and the contractor. In order to shed light on this, basic models for organization of activities in society may be drawn up. On a very general level, three types of organization exist: market, hierarchy and - the newest - network. The below figures provides a brief characterization of these three types:
The principal-agent model is an exercise of the market based organization type. But with IEC developers, the organization type quickly evolves into a network. The developer helps the contractors fulfil OHS requirements. In this way, collaboration is established, requiring that the developer has staff with special OHS competences. These staff members are part of a collaboration with contractors. From the developer's point of view, this collaboration can be characterized as pedagogical work: you teach the contractors how to behave. This also means that long-term relations are established between the developer and the contractors. They are to learn how to behave correctly, and both parties benefit from maintaining the relation once the right behaviour has been learned.
How to determine the right behaviour: isomorphism

But how do you determine what the right behaviour is? Institutional organization theory may assist us (DiMaggio & Powell, 1983) with a concept. As mentioned earlier, an enterprise is not only to be efficient in terms of economy, it must also ensure legitimacy. There is an abundance of social institutions that collect and set up norms for right behaviour and thereby what is legitimate. The National Working Environment Authority is a significant norm sender. Through acts and orders, guidelines etc., this authority sets up requirements and expectations for the activities of enterprises. According to Dimaggio & Powel, enterprises may react in three different ways:

1. They can imitate out of necessity (isomorphism). This means that they meet the specific requirements facing them without necessarily embracing the intentions behind the requirements. The primary objective is to avoid sanctions. An OHS plan is made. It is not followed consistently, but it is there. The workplace assessment forms prepared by the National Working Environment Authority are filled in to ensure that the paperwork is taken care of.

2. They can imitate the perceived trendsetters, the good or the correct (memotechnical isomorphism). You are inspired by an enterprise that you see as good and do the same as them, without considering whether everything can be copied to your context, but in the hope of being perceived as good. For instance, the developer asks his consultant to set a number of relevant requirements in the tender documents, signalling a high level of OHS. The consultant signals great OHS ambitions on behalf of the developer without assessing whether the developer has the resources or knowledge required to realise or follow up on them in practice. Initiatives are introduced that are often not followed in practice.

3. They can actively relate to the requirements, embrace them and internalize them in their own routines (normative isomorphism). This is typically done by hiring a trained person with in-depth knowledge of the field. In connection with OHS, this could be a safety manager who has in-depth knowledge of the requirements, the underlying intentions and different ways of fulfilling them.

Enterprises in the IEC group are typically found to have the third reaction pattern, whereas DC companies often display the first reaction pattern. So, for OHS requirements in agreements to have any real effect, it is necessary for the enterprises to have the competences necessary to internalize the requirements and expectations facing the enterprise.
**Necessary understanding at developer: organizational design**

The analysis shows, however, that it is not enough to merely have the competences to convert the requirements and expectations of authorities. It is also necessary that the person(s) in charge of the OHS aspect in the developer's organization sees the specific efforts in the overall, organizational context and act accordingly. A few examples from the study serve as illustration.

An effort to integrate OHS will struggle to succeed, if the salary system only rewards quick execution of jobs. It will also be hard for it to succeed if all procedures are neglected in situations where time schedules are not respected and budgets are struggling. Also, it will be hard to realize such effort if the work of the different groups is not coordinated.

In his star model for organizational design, Galbraith (2002) mentions certain relations to be aware of.

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Strategy

Staff Structure

Reward system Processes
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The model illustrates key connections in a well-functioning organization. The enterprise strategy determines goals, vision and mission. The structure determines the allocation of responsibilities and thereby formal power positions. Processes refer to the information and decision processes present in the enterprise, and that often travel across departments etc. The reward system is the set of rewards and sanctions seeking to ensure some extent of agreement between personal and organizational
goals. And lastly, staff comprises the different activities directed at the staff such as procedures regarding recruitment and competence development.

By the figure, Galbraith seeks to stress that it is important for a function to function effectively that the decisions made in each of the five areas support each other. In other words, it must be ensured that the structure, the relations across departments etc., reward systems and the practice around recruitment and development of staff match. Thus, it is crucial that the OHS strategy does not lead a separate life apart from the other strategies in the enterprise. If the strategy contains the ambition to establish and operate safe work sites and to ensure great OHS conditions for the staff - including at sub-contractors - it is necessary to consider the different contexts. This entails analysing questions such as: Are the people working on realizing this part of the strategy located correctly in the structure? Are they involved in key information and decision flows? Does the reward system support the desired behaviour - also in critical situations? It is ensured that the right competences are present regarding OHS work?

Through the study, it became clear that the person responsible for the OHS field getting the right place in the enterprise and in the relation to its sub-contractors is able to carry out such analyses, and then work to remedy any deficiencies. This competence is often overlooked for this group (Jensen, 2002).

Conclusion: the contract approach may work, but…

The study shows that a strategy based on incorporating OHS in tender materials and contracts between developers and suppliers can be a successful strategy. But in order for it to be so, the theory based analysis shows that special requirements are set to the developer's organization.

- For this to work, it is not enough to only a special contract. You should be aware that network relations based on trust are to be developed between the developer's organization and the contractor.
- As regards small (and probably also large) contractors, it is necessary that the developer's organization sets aside staff resources to handle these network activities.
- There are special competence requirements for this staff. First, they must possess in-depth knowledge of requirements and norms, the underlying basis, and ways to fulfil them. But they must also be able to see their activities in a greater organizational context. Lastly, in
continuation thereof, they must be able to take part in the organizational games played to ensure that OHS considerations are rightfully included in ongoing discussions regarding development and operation of the construction process.

The study also shows that this approach entails positive gains, not only as regards OHS, but also as regards quality and probably the total costs.

Lastly, the study also indicates that the contract strategy is not the only strategy. In the group of enterprises termed OKB, several build long-term relations based on trust, which also affect norms and behaviour towards safer and better work sites in terms of OHS.

References


WS4.1-3 Abstract:

‘The driving role of large companies on OHS management implementation in SMEs’
by Jesús M. López de Ipiña, Industrial Safety Unit Coordinator, Fundación LEIA, Miñano-Alava, Spain

SMEs are the core of Europe’s economy. In practice, 99% of businesses in the European Union are SMEs and they provide two-thirds of all private sector jobs. Large companies (> 250 employees) represent about 33% of employment but regarding SMEs, micro-businesses (< 10 employees) reach almost a similar share. In the literature, there is enough evidence that, in general, both OHS regulations and management do not represent a special concern for SMEs. Despite the fact that SMEs are much more vulnerable to work accidents and diseases, not too much time or attention is dedicated to cover this topic in their business,

In a global competitive world, large companies have implemented and usually certificated by third parties OHS management systems following international standards. Such standards (e.g. OHSAS 18001) provide requirements to be satisfied by subcontracted companies working for them, either in the same or in different activity. In this context, the large company “persuades” (client requirement) and, at the same time, facilitates the implementation, even the certification of OHS management systems in SMEs, usually following the same standards.

The final result of this is a driving effect of large companies over SMEs promoting the implementation of such management systems. This strategy produces the following benefits for SMEs: 1) to facilitate the compliance with OHS regulations, 2) the improvement of the own safety and specially, 3) the introduction in the SMEs of an advanced safety culture that will be also exported to other industrial activities, out of their relations with the larges companies.
Internationally there is a plethora of occupational health and safety (OHS) guidance. OHS legislation amongst developed countries is widespread. New Zealand (NZ) is no exception. NZ governmental agencies (mainly the accident Compensation Corporation (ACC) and the Department of Labour (DoL)) and industry organisations have recently developed numerous OHS programmes specifically targeted at small businesses (Legg 2009).

The rationales underpinning the introduction of the programmes were considered by a sample of 42 national and local stakeholder agencies, including industry associations, to vary considerably and sometimes to be ill-defined. Some of the stakeholders felt that there was little awareness of national OHS legislation and programmes amongst small business owners. The present study therefore sought to discover, using structured interviews, the extent of awareness of national OHS legislation and of the OHS programmes specifically targeted at small businesses amongst nine small business owners, mostly selected on the basis of their being identified by their industry association as having ‘good OHS knowledge’.

It was found that four of the owners had no or very little knowledge about health and safety legislation and five out of the nine had no or very little knowledge about OHS programmes targeted at small business. Whilst two of the owners said that they would not contact either ACC or DoL to get information or advice, two owners used both ACC’s and DoL’s web-sites to gain information. It is concluded that despite being selected on the basis of ‘having good OHS knowledge’ the awareness of national OHS legislation amongst the nine small business owners’ in the present study, was patchy. Their awareness of OHS programmes specifically targeted at small businesses was poor. It seems likely that there is even less awareness amongst most small businesses owners.
References:

Small business owners’ awareness of Health and Safety legislation and targeted programmes

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Abstract

Internationally there is a plethora of occupational health and safety (OHS) legislation and guidance programmes but relatively few targeted at small businesses (SB). New Zealand is no exception but the awareness of these amongst owners of SBs was considered to be low by a sample of national and local stakeholder agencies. This study therefore sought to discover, using structured interviews, the extent of this amongst nine SB owners, mostly identified by their industry association as having ‘good OHS knowledge’. Four of the owners were found to have no or very little awareness of OSH legislation. Five had no or very little awareness of SB-targeted programmes. It is concluded that, amongst this sample, awareness of national OHS legislation was patchy and that awareness of SB-targeted programmes was poor. It seems likely that the level of awareness amongst most other SB owners in New Zealand is worse. To what extent this is true internationally is unknown.

Keywords: SME, enterprises, regulations, interventions

Introduction

The working environment in New Zealand has undergone massive change in the past few decades, in keeping with the experiences of most western industrial societies. These changes have occurred relatively shortly after the transition to performance-based regulation of occupational health and safety (OHS) as outlined in the Robens report (Great Britain Committee on Safety and Health at Work, 1972), the implementation of which was delayed to the early to mid 1980’s in most jurisdictions. Many of the settings upon which the transition was predicated, such as large organizations and high union density, have materially eroded. The shift from the hitherto more prescriptive style of regulation of OHS in New Zealand was not completed by the time the world of OHS became much more complicated by these changes in the workplace (Pearce et al., 2008).

Occupational health and safety in New Zealand (NZ) is driven by the Health and Safety in Employment Act 1992 (HSE Act) and associated legislation, regulations and Codes of Practice. The implication under this performance based (self-regulatory) legislation is that businesses are expected to manage the risks that arise out of their business activity via internal risk management systems in order to create and maintain a safe and healthy work environment (Department of Labour, 2008).
New Zealand and international literature suggest the physical (though not necessarily the psychosocial (Sorensen et al., 2007)) work environment in small businesses (SBs) employing fewer than 20 staff is worse than in large businesses and implies that some of the characteristics of small businesses make it more difficult for them to create and maintain a safe and healthy work environment. There is growing evidence that those working in small business in New Zealand and overseas are more frequently exposed to dangerous situations and suffer more work-related injuries and illnesses than those working in larger businesses (Mayhew, 1997a, 1999; Quinlan, 1998; Feyer et al., 1999; Mayhew & Quinlan, 1999; Stevens, 1999; Lamm, 2000a; Okun et al., 2001; Morse et al., 2004; Hasle & Limborg, 2006; Walters, 2006).

Little is known about employee/employer participation in small businesses (Pandey et al, 2009) and the magnitude of exposure to OHS risks amongst the small business workforce is relatively unknown but is likely to be high and greater than that in larger enterprises. For example, Sorensen et al., (2007) suggest that the workplace, physical and chemical work environment in small businesses is particularly poor compared to larger organizations. Recent research in small businesses suggests that relatively poor OHS management and outcomes in comparison to larger businesses could be attributed to characteristics typical of small businesses (Laird et al, 2009; Olsen et al, 2009). Small businesses are less likely to have formalised management structures, an evolved or structured approach to OHS management, internal health and safety expertise or access to external sources of assistance (Dryson, 1993; Biggs & Crumbie, 2000; Simonsen et al., 2003; Vickers et al., 2003; Baldock et al., 2006; Antonsson, 2007). These issues are further exacerbated in that small businesses are difficult to regulate due to their heterogeneous nature, geographical dispersion, lack of cohesive representation and relatively short life spans (Dawson, et al., 1988; Storey, 1994; Lamm, 1999; Eakin et al., 2000; Walters, 2001). This is of great concern and warrants consideration because small businesses commonly comprise a high proportion of national enterprises and employ a relatively large fraction of the workforce. This is especially true in New Zealand where 97% of all enterprises employing fewer than 20 people account for 32% of all employees (Ministry of Economic Development, 2007).

There is a plethora of international and national guidance information about occupational health and safety (OHS). OHS legislation in developed countries is widespread. New Zealand (NZ) is no exception. NZ governmental agencies (mainly the accident Compensation Corporation (ACC) and
the Department of Labour (DoL)) and industry organisations have recently developed numerous OHS programmes specifically targeted at small businesses (SB). In a recent report for the NZ National Occupational Health and Safety Advisory Committee by Legg et al. (2009), the rationales underpinning the introduction of the programmes in NZ were considered by a sample of 42 national and local stakeholder agencies, including industry associations, to vary considerably and sometimes to be ill-defined. Some of the stakeholders felt that there was little awareness of national OHS legislation and programmes amongst small business owners. The present study therefore sought to discover, using structured interviews, the extent of awareness of national OHS legislation and of the OHS programmes specifically targeted at small businesses amongst nine small business owners, mostly selected on the basis of their being identified by their industry association as having ‘good OHS knowledge’.

**Methods**

Nine illustrative case studies of small businesses were selected from the following industry sectors: agriculture, boat building, civil aviation, fishing, forestry, health care, horticulture, residential construction, transport. The purpose of the case studies was to illustrate: the drivers for the establishment of health and safety; how health and safety is integrated into the business and daily activity; their formal plans for the management of health and safety; the effect of any occupational disease and injury, and; to give an indication of what the businesses know about OHS legislation and programmes. The present paper reports on the last of these aims. It describes the awareness of Health and Safety legislation and targeted programmes amongst the nine small business owners.

The aim was to select a small business that had given some consideration to occupational health and safety, from each industry sector; that is, to select a business that knew about health and safety and that had integrated some form of health and safety management into their daily business. Initially the industry associations or other stakeholders in the nine industry sectors were contacted by telephone or by email and asked if they could provide contacts to small business in their industry sector that fulfilled the criteria. Industry associations from four of the industry sectors (residential construction, horticulture, boat building and health care) provided us with small business to contact. Out of these contacts, three agreed to participate in the project. The ones from health care declined. To obtain the remaining six of the nine case studies we contacted businesses recommended by ACC, by professional colleagues and randomly from the Yellow Pages business directory. Table 1
shows how the nine case studies were selected and our understanding (based on the advice given by the agencies mentioned above) of the level of prior consideration given by the SB owner/manager to health and safety issues.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Source for selection of the small business</th>
<th>Our prior understanding(^1) of the level of consideration given by the small business owner/manager to health and safety issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>Professional colleagues</td>
<td>The business was considered to have given occupational health and safety some consideration</td>
</tr>
<tr>
<td>Boat Building</td>
<td>Boating Industry Training Organisation</td>
<td>The business was considered to have given some thoughts to health and safety</td>
</tr>
<tr>
<td>Civil aviation</td>
<td>Yellow Pages</td>
<td>No prior information about the business’ health and safety</td>
</tr>
<tr>
<td>Fishing</td>
<td>NZ Fishing Industry Guild &amp; key experts on the fishing industry</td>
<td>The operator had a committed focus on safety and quota management related issues</td>
</tr>
<tr>
<td>Forestry</td>
<td>NZ Accident Compensation Corporation</td>
<td>The business was considered to have given some thoughts to health and safety</td>
</tr>
<tr>
<td>Health Care</td>
<td>Yellow Pages</td>
<td>No prior information about the business’ health and safety</td>
</tr>
<tr>
<td>Horticulture</td>
<td>Industry Association (Hawke’s Bay Fruit Growers Association)</td>
<td>The business was considered to have given some consideration to health and safety</td>
</tr>
<tr>
<td>Residential construction</td>
<td>Industry OHS training provider (Work Safe)</td>
<td>The business was considered to have good health and safety management</td>
</tr>
<tr>
<td>Transport</td>
<td>Yellow pages</td>
<td>No prior information about the business’ health and safety</td>
</tr>
</tbody>
</table>

\(^1\) based on the advice given by the source for selection of the small businesses

Table 1. Sources for selection of the nine case studies

The information about the awareness of OHS legislation and programmes is based on semi-structured face-to-face interviews conducted with the owner/manager of each SB during a visit to their place of work. The specific questions concerning health and safety legislation were: 1) Do you know of any laws or regulations concerning health and safety that affect you and your business?, 2)
What impact have they had on your business?, 3) How and from where have you gained knowledge about them?, 4) How easy or difficult do you find they are to understand?, 5) How difficult has it been to manage them?, 6) Can you mention some of the difficulties?, and 7) How well do you think you comply with them? The specific questions relating to OSH programs targeted at small businesses and the industry were: 1) Do you know about any program that wants to encourage you to improve health and safety?, 2) Do you know if it specifically targets small businesses?, and 3) What do you think about them? Prior approval for the study was obtained from the Massey University Human Ethics Committee. Participants were fully informed of the nature of the study and their ethical rights in advance.

The data obtained during each interview was summarised and sent back to each owner/manager interviewee for comment and verification of accuracy before the final case study report was prepared. The case study descriptions are the researcher’s representation of the information obtained during the interview. We have interpreted the information obtained from the interviews using the framework model of Hasle and Limborg (2006) in order to provide a consistent structure for analysis. The main issues related to awareness of health and safety legislation and targeted programmes from each case study are summarised at the end the description of each case.

**Case 1: Agriculture**

This small business produces dairy milk for Fonterra, a major New Zealand dairy company. Numerous activities are performed daily on the farm to achieve this goal, including: milking the cattle twice a day, loading and distributing silage by tractor, moving stock by quad bike or foot, repairing gates and fences, and maintaining the operation and hygiene of the milking shed. Tasks that are conducted less frequently mainly involve moving the irrigator dispenser, and controlling weeds and pastoral growth via spraying and removing the tops off the grass.

The business is owned and operated by a farmer and his wife who have farmed the property for 10 years and owned it for five. The farmer is responsible for the manual tasks on the farm while his wife takes care of the administration. They are supported by one full-time employee, who milks the cows and assists with manual tasks, and a part-time relief milker. They are considering employing one more permanent staff member, but have no desire to significantly expand the operation, which would require more workers. This would vastly increase the amount of administration required and
make OHS issues difficult to deal with. Keeping the business small and manageable allows the farmer to spend time on the farm and with his family, which are the most positive aspects associated with working in the industry.

The farmer suggested that there were a number of issues that negatively affect his business. The increased cost of fuel and electricity were cited as the most significant, as they erode profit margins even though dairy farmers are currently receiving a sizable pay out for milk. Adverse weather conditions, especially wet seasons and droughts, were stressful events because it compromised his ability to feed and ensure the health of the cattle.

**Awareness of health and safety legislation and OHS Programmes**

The legislation and regulations that have significant impact on the business included: the requirements stipulated by Fonterra, which audits the business once a year to ensure the manual is updated, the shed is clean and that chemicals are stored securely; the Resource Management Act, which the regional council audits the farm on every three years; and, approval from the veterinarian to administer drugs to cattle. The farmer and his wife were also aware of the ACC and Hazardous Substances and New Organisms Act, because she has an approved handler certificate. Although, not aware of the HSE Act as such, the wife had vague awareness of some of their obligations under the Act, because of her employment at a large pharmaceutical company.

They were aware of FarmSafe, an Industry safety training programme, but the wife has not been able to attend the course yet because of work commitments. However, she planned to attend the next course in order to qualify for a reduction in their ACC levy, which they thought was too high for their business. They also wanted to know what regulations their business must comply with, particularly a booklet containing simple information on the requirements, what documents should look like, and a person to contact for further help.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- Little awareness of health and safety legislation
- Family and peers are the preferred advisor
Case 2: Boat Building
This small business primarily assembles inflatable boats. It involves the assembly of eight different types of boat of various sizes, made of two different materials including aluminium and fibre glass. The component parts are manufactured by sub-contractors. The business also imports and sells safety equipment, such as lifejackets.

The owner, who has a background in accounting, only purchased the business a year ago and employs 13 staff. The business was established in the 1990s and has only recently moved to new premises, which allowed for improvements in the production process. However, they could not afford to mechanise the process and provide a safer working environment due to tight profit margins.

Awareness of health and safety legislation and OHS Programmes
The owner saw the OHS regulations as commonsense. He used the DoL website to retrieve OHS information. The business had not been inspected by DoL and had not contacted them directly.

The owner found it difficult to deal with ACC because of the high turnover of ACC administrators and case managers. It created a perennial tension between the employer, the employee and ACC.

The owner was not aware of any government OHS initiatives for small businesses, apart from the Regional Council’s attempts to implement a recycle system. However, he perceived the problem was the lack of consistency with such programmes and lack of linkages between the different agencies and their programmes. The business was not directly involved in the above programmes.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- Communication consistency between the various authorities influencing OHS is crucial
- No awareness of OHS programmes targeted at small business

Case 3: Civil Aviation
This small civil aviation business sprays agricultural chemicals over farm land and crops by helicopter. The aircraft repeatedly flies at low levels over the land to dispense agrichemicals held in
under-slung tanks. The helicopter can dispense chemicals for between five to 10 minutes before it has to briefly land for the tanks to be refilled by the ground crew (loader/drivers) whilst the rotors are still turning.

The business was established three years ago by the owner-manager, who pilots the helicopter. He has 13 years of flying experience and has been in the industry much longer than this, having worked his way up in the hierarchy from a loader/driver through to a certified helicopter pilot. He is supported by three employees, including two ground crew and one part-time administrator. The business has around 350 customers; mainly farmers but also a few large institutions, such as a city council.

It is a very costly business. The helicopter is a significant investment and is expensive to maintain and operate; fuel in particular is a major cost. Thus, using the equipment effectively and efficiently is paramount. Increased productivity can only be achieved by minimising the helicopters’ time on the ground as opposed to flying faster. Time is therefore a major necessity.

Awareness of health and safety legislation and OHS Programmes
The owner did not know about the HSE Act nor the regulations. He was aware of Civil Aviation Authority’s programs, AV-Kiwi and AV-Safety. He had considered attending some of the meetings because he thought they would be useful, but was not aware of other programs targeted at small businesses.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- No awareness of health and safety legislation.
- DOL and ACC are not perceived as useful advisors on OHS.
- Peers in the industry are used as advisors in general and in relation to OHS

Case 4: Fishing
This small business supplies fish to processing facilities for distribution to local and export markets. Fish supplied to the processing plants is sourced from in-shore and off-shore fishing operations. The business operates two purpose built vessels performing a variety of fishing activities. In-shore
fishing activities are performed throughout different times of the year with close proximity to the
New Zealand coastline. Off-shore fishing operations are generally performed during the tuna season
(December - March), no more than 100 miles off shore.

The business has been in operating since 1992. The operator of this business is also a co-owner and
has been in the fishing and maritime industry since 1967 and has had over 20 years experience,
skippering both in-shore trawlers and off-shore tuna operations. Key responsibilities include the
daily management of the business and the two vessels, administration, quota management, staffing
(both fishing and unloading staff), safety, maintenance, and skippering one of the company boats.
The business employs ten full-time staff and an additional eight part-time employees. Staff are
employed to perform a variety of tasks and are made up of eight fishing crew, two processing staff,
and eight unloading staff. Four of the processing and unloading staff are female.

The owner of the business had extensive industry specific qualifications; net making apprenticeship,
deck hand certificate; skipper’s ticket, Diploma in Fishing Technology, and had also received a
scholarship to attend a European maritime institute. The owner considered continued training and
education an essential part of being a responsible skipper. Furthermore, the operator had a
committed focus on safety and quota management related issues. It was the operator’s belief that
increasing operational expenses (specifically fuel) were eroding profit margins and this had an
impact on safety related issues. Indeed, the owner cited “a love of the ocean” as the most positive
feature of working in the fishing industry, but felt that the pressure of “personal liability” for human
error was the greatest limitation and this was becoming increasingly stressful.

Awareness of health and safety legislation and OHS Programmes
Various legislation and regulations had an impact on the operation of this business: first, the quota
management requirements; second, the guidelines relating to boat standards and manufacturing
requirements provided by maritime authorities; third, Maritime New Zealand’s Safe Ship
Management programme, and; finally, administering ACC legislation and levy payments entailed a
great deal of resources, including time. It should be noted that while the owner was aware of the
FishSAFE programme and had read documents about the ACC initiative for small businesses, he
had not participated in any of the training programmes.
In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- As a result of the employer’s years of training and industry expertise, he was cognisant of the numerous health and safety regulations pursuant under the different statutes.
- The skipper utilised industry experts, colleagues and government agencies to obtain additional OHS information and advice
- The skipper was unaware of the FishSafe programme.

Case 5: Forestry

This small business offers silviculture and timber harvesting services. However, this case study focuses on the harvesting aspect of the business. Before commencing work at a forest block, the foreman visits the site and does an initial inspection. The inspection is then repeated by the forestry crew to assess the tasks and the hazards they are likely to be exposed to on the site. The tasks are then delegated to the employees and primarily include: felling trees, moving, and loading the logs on to trucks to be processed. Hazardous machinery is utilised throughout the process.

The owner-manager worked as a forestry manager prior to establishing the business nine years ago. He has a Diploma in Forestry Management which included practical forestry and management skills, including OSH compliance issues. The business employs 17 employees and 10 to 14 subcontractors. The employees are organised in five teams that operate independently as self-managing teams.

One of the difficulties in the industry is secure full-tenure of contracts. For example, a three year contract can be terminated after six months because the contractor becomes insolvent. According to the owner-manager, they also experience significant difficulties with employment, particularly: attracting reliable, skilled employees; the high minimum wage; and the high costs associated with training new employees.

Awareness of health and safety legislation and OHS Programmes

The owner knew about the health and safety legislation and regulations related to his business. It is mainly through the large customers that he kept up to date, but he also used the industry organisation and the inspector from the DoL. The owner was not aware of programmes targeted at
small business or the forestry business other than the ACC workplace safety discount scheme (WSDS).

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- The owner’s educational background is the basis of the high knowledge about OHS in this small business
- High knowledge about the OHS acts and regulations
- Sees OSH inspectors as resources for improvements

**Case 6: Health care**

The business is operated by a self-employed occupational health nurse who offers health screening services, including: the review of medical histories, physical body measurements and blood tests. The customers are insurance companies, including ACC. The insurance company sends an email to the nurse with information about the patient. She then telephones the patient and arranges a meeting in their home or at their workplace.

The business was established 13 years ago and is operated on a part-time basis. The nurse is also employed part-time in a large company where she is also a health and safety representative. The owner has 32 years of experience in the area, holds a degree in nursing and a Masters in Ergonomics.

The business does not have any employees at the moment, but had one employee three years ago. The employee was mainly employed to work when the business was sub-contracted for services by ACC.

The owner’s main concern is to provide a quality service to the insurance companies and to meet the needs of the client. The owner is not concerned about ensuring the availability of work because the contracts that the business has with insurance companies cover a large geographic area.
**Awareness of health and safety legislation and OHS Programmes**

The owner found OHS legislation, regulations and codes of practice easy to understand, but recognised that other small health care business owners might have difficulty understanding and implementing them in practice. The owner perceived that the *Health Professional Competency Act* affected her business the most as it required the maintenance of a nurse practitioners certificate via frequent training. The most complex act was considered to be the *Privacy Act*.

The owner was aware of ACC’s *Lighten Up* programme for manual handling in the health sector, the ACC discomfort, pain and injury (DPI) programme and the ACC WSDS. She found information about the programmes on ACC’s website. The owner did not consider participating in ACC’s WSDS because her levy was already low.

When the owner searched for information on OHS, she usually visited the ACC and DoL online sites. She particularly looked for codes of practice and has found the DoL helpful when she has been in contact with them. The owner suggested that the DoL could improve their services to small businesses by making their advice more accessible, for example, having a personal contact that could be phoned for advice or information.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- The owner is well informed about OHS legislation and programmes.

**Case 7: Horticulture**

This small horticultural business primarily produces apples for export and some pears for the domestic market. The activities that take place at the orchard vary considerably according to the season. In early winter the trees are pruned; during winter, spring and summer the orchard is sprayed to control weeds and pests; the grass is mowed regularly, and; the apples are picked in autumn. During the picking season, bins for the apples are transported in the orchard by tractor.

The grower has owned the orchard for nearly 30 years; before that he leased his father’s orchard. He does not have permanent staff but employs casual labour during the picking season. During the peak season eight people are employed at once; if he could get good pickers he would only employ...
four. Generally, he has up to 25 different employees over the picking season. It is difficult to get good and reliable workers. The owner thinks it is partly because he cannot afford to provide accommodation as pickers prefer to work where they can live.

Market pressures have a significant impact on the business. The business is annually audited by Global GAP (Good Agriculture Practice standards) and has to meet the prescribed standards in order for the apples to be exported to Europe and the United Kingdom. The price of apples is dictated by the market and the profit margin is low. This causes considerable stress because the grower is often uncertain if he can break even. Any profit is essentially his wage. Often the workers get paid more than he earns and his family are dependent on his wife’s income to survive. He works around 70 hours a week during the peak season and production is dependent on the weather conditions. He remains in the industry because the orchard is an investment that is difficult to give up or to know when best to get out of the seasonal cycle in the hope that the next season will be more profitable.

Awareness of health and safety legislation and OHS Programmes
The owner’s knowledge about OHS came from Global GAP, approved handler training and experience. He was not aware of any OHS programmes targeting the apple industry, but was aware of the ACC WSDS. He had no inclination to join the scheme because it would add extra administration and the 10% discount on his ACC levy fee (NZ$ 900) is what he described as “peanuts”. He did not find legislation difficult to understand, but thought it a necessity for larger businesses employing lots of staff. He perceived that his business was compliant with the relevant laws.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:
- ACC’s WSD scheme is not considered an incentive
- Close relations to the pack house (customer) and peers are important influencers

Case 8: Residential Construction
This small business primarily constructs residential buildings, but also does some light commercial work. They mainly undertake the structural aspects of the construction process, including: laying
the concrete foundations, erecting the timber framing and laying the roofing. Sub-contractors are employed for the specialist tasks, such as electrical installations and plumbing.

The business was established in the early 2000s and is managed by the owner who has a background in the construction industry and OHS. The owner was originally a carpenter but has had considerable experience as an OHS professional in a variety of capacities. The business has two employees; a carpenter and an apprentice. If the business is contracted to undertake a large construction project, the owner prefers to hire contractors as opposed to permanent staff because of compliance costs associated with PAYE and cash flow issues.

Residential construction is an extremely competitive sector. The main difficulty is managing the subcontractors because they are only at the building site for a few days. Thus, as a means of control, the owner tries to build good relationships with only a few sub-contractors that operate to his standards.

**Awareness of health and safety legislation and OHS Programmes**

The owner of this residential construction business was well aware of the HSE Act and related Regulations and Codes of Practice. To get information and advice on OHS issues the owner referred to Codes of Practice and DoL’s website. He did not find the DoL website easy to use and extract knowledge from. His background in OHS enabled him to comprehend legislation and regulations, but in his opinion others in the industry struggled to translate the regulations to practice. He suggested that OHS inspections could be combined with inspections from the council and/or the ACC Workplace Safety Discount (WSD) scheme audit process to increase inspections in the sector.

The business passed the WSD scheme audit and received a 10 % discount on its levies. The money was not a great incentive but was used to invest in safety equipment. The real incentive was to be “one and a half step in front of an OSH inspector” and to display commitment to OHS. An increase in the percentage discount would encourage more to go through the process and a figure of 15-20% was suggested. The audit process did not improve safety at the business and he was disappointed with the re-audit, which only required him to fill in a form. The owner was a supporter of Site Safe courses and the various Site Safe passports.
In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- High knowledge about legislation and programmes mainly based on the owners prior experience as an OHS professional

**Case 9: Transportation**

This transportation business was founded 20 years ago when the owner purchased a truck to transport his brother’s potatoes from the farm to the market. The business has evolved and expanded over this time and today, primarily transports general bulk freight deliveries primarily for business customers. They have about 60 regular customers and have a truck on the road every hour of the day so the business essentially runs ‘24/7’. The business provides an interesting case study because it expanded from a small to medium business within the last 15 months in order to service contractual obligations. The truck fleet increased in size from seven to 19 rigs and the business employs 30 staff, including 23 drivers who also supervise the loading and unloading of freight. The rest of the staff have administrative and support roles. A general manager has been appointed to cope with the logistics associated with the increase in size.

The main issues for the business were reported to include petrol prices, road user charges and the highly competitive nature of the industry. It was also noted that it can be a very stressful industry in which to work.

**Awareness of health and safety legislation and OHS Programmes**

Due to business expansion, the managers became more aware of hazards and information about health and safety was mainly sourced via the ACC and DoL website and tools developed by its larger customers. The manager reported difficulties with legislation. Specifically, the Land Transport’s ‘rules of the road’ that control driver hours was the most difficult to implement because of its inflexibility. Employment law was another issue, particularly because it was difficult to interpret and do in practice, such as calculating holiday pay.

The business had not participated in any OHS programmes targeting the transport industry or small business because they had difficulty setting aside time to do so. However, they were aware of:
AON Driver Fatigue; ACC promotions of safety around vehicles; and, the ACC WSDS, which they thought was only for corporate businesses.

In summary the main issues concerning awareness of health and safety legislation and OHS programmes for this SB were:

- Knowledge was gained from ACC’s and DOL’s website
- Large customers, like Fonterra and other transport companies, are the preferred advisors on OHS.

Discussion

It is apparent that out of the nine case studies, four of the owners had no or very little knowledge about health and safety legislation and five had no or very little knowledge about OHS programmes targeted at small business. Whilst two of the owners said that they would not contact either ACC or DoL to get information or advice, two owners used both ACC’s and DoL’s web-sites to gain information.

The issues identified in the case analyses are purely based on the information we have gained from the interviews with the small business owners. Unlike some other studies (e.g. Hasle et al., 2008), we have not generally been able to assess or evaluate the veracity of the interviewees assertions e.g. whether or not the owner underestimates the risks related to the activities in the business. It is also acknowledged that employees are likely to have different perceptions on the key health and safety issues for the business and how they are managed. Nevertheless, in summary the main findings from the nine case studies were that there was a patchy knowledge about OHS legislation and little awareness of OHS programmes targeted at small businesses.

These findings are of concern, especially because the small businesses were selected to participate in this study on the basis of ‘having good OHS knowledge’. The findings are even more concerning if it is assumed that most other small business owners are likely to have considerably less awareness of health and safety legislation and of OHS programmes that the SBs in the present study. It seems likely therefore that awareness of health and safety legislation and of OHS programmes amongst small business owners in New Zealand is very poor in New Zealand. To what extent this is true internationally is unknown.
Conclusions
It is concluded that, despite having been selected on the basis of ‘having good OHS knowledge’, the awareness of national OHS legislation amongst the nine small business owners’ in New Zealand the present study was patchy. Their awareness of OHS programmes specifically targeted at small businesses was poor. These findings are concerning because the unexplored implication is that the awareness of health and safety legislation and of OHS programmes amongst small business owners in New Zealand is likely to be considerably less than for those included in the present study, and hence very poor.

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References


Introduction: The aim of Occupational Health Services (OHS) in Finland is the primary prevention of illnesses and injuries and health promotion at work. The coverage of OHS is almost complete among large and medium-sized companies, but only one third of small enterprises (SEs) is covered by OHS. Especially micro-firms employing less than 10 people do not offer OHS to their workers even though the employer is obligated by law to organize occupational health services for their employees. For entrepreneurs OHS is voluntary and 20% to 30% of them utilize OHS.

Approach: Former research on OHS for SEs and entrepreneurs in Finland shows that entrepreneurs do not have sufficient knowledge about OHS. Moreover, many of those using OHS feel that the operational model and methods of OHS that have been developed in the context of large industries do not fit well for SEs. Furthermore, OHS providers prefer to have larger companies as their clients and concentrate on developing services for them. To improve the access of entrepreneurs and SEs to OHS and to fill the gap in the coverage of OHS for entrepreneurs and SEs a three level OHS model for SEs and entrepreneurs was developed in Finnish Institute of Occupational Health.

Results: The OHS-model for small enterprises and entrepreneurs consists of three levels ranging from one time consultative intervention by OHS professionals to a comprehensive, continuous OHS including promotive and preventive services and medical care. The model ensures entrepreneurs and SEs easy access to OHS. It enables them to choose the scope of services that best suit to their situation. In OHS there are specific methods and tools and operational models needed in promoting the occupational health and safety of entrepreneurs and SEs.

Implications: The model will be tested and developed further in a pilot study in spring 2009.
**Occupational Health Services for Entrepreneurs and Small Enterprises -
A Tentative Model**

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**Abstract**

The aim of Occupational Health Services (OHS) in Finland is the primary prevention of illnesses and injuries and health promotion at work. In Finland, companies are legally bound to provide occupational health services to their workers. The coverage of OHS is almost complete among large and medium-sized companies, but only one third of small enterprises (SEs) is covered by OHS. For entrepreneurs OHS is voluntary and less than 30% of them utilize OHS. This paper presents a tentative model of OHS developed to overcome the barriers for the utilization of OHS by entrepreneurs and small enterprises. It also outlines a development project within which the model will be tested and developed further in collaboration with entrepreneurs and small enterprises, occupational health service providers and researchers.

**Key words:** Occupational health services, small enterprises, entrepreneurs, occupational health personnel

**Introduction**

Occupational Health Services is considered key to keeping workers healthy and to enable Finland's aging population to work longer. OHS can be regarded as the main support system that promotes the well-being of working population. Health and well-being at work have been shown to be positively related to productive work and the success of enterprises (1-5).

However, among entrepreneurs and small enterprises occupational health services have remained mostly unexploited. Only one third of small enterprises (SEs) are covered by OHS. Especially micro-firms employing less than 10 people do not offer OHS to their workers even if the employer has been obligated by law to organize occupational health services (OHS) for the employees since 1967 (6, 8). To encourage employers to arrange OHS, half of the OHS costs is reimbursed by the
Social Insurance Institution; the employer has to pay for the other half. For entrepreneurs OHS is voluntary and approximately 20% to 30% of them utilize OHS. (7-8.) This paper discusses the issue how OHS system and services could be more fully utilized in supporting entrepreneurs and small enterprises.

**Approach**

In spite of the poor coverage of OHS among entrepreneurs, they feel that also they need support to their well-being at work. They are interested in occupational health services, but - as former research on SEs and entrepreneurs in Finland shows - they do not have sufficient knowledge about OHS. Particularly those not covered by OHS are not aware of its aim and content (7). Furthermore, many claim that it is difficult to know what kind of services one should buy. In addition, OHS providers prefer to have larger companies as their clients and concentrate on developing services for them in order to ensure the cost effectiveness of their activities.

The operational model and methods of OHS that have been developed in the context of large industries do not fit well for entrepreneurs and small enterprises. OHS procedures are experienced as bureaucratic and OHS-centered, and not focused on the actual customer needs.

To enable entrepreneurs and small enterprises better utilize OHS, they need more information about it. They should also have the possibility to do informed decisions about what kind of services they need in their current situation, and an easier access to such services. OHS developers and providers should take into account the needs and preferences of entrepreneurs and small enterprises and their varying situations. This requires understanding entrepreneurship and the life in small enterprises. It also calls for developing new ways of organizing and producing occupational health services and trying new methods and tools by which it would be possible to support the occupational health and safety and the work ability of entrepreneurs and small firms' employees.

To improve the access of entrepreneurs and SEs to OHS and to fill the gap in the coverage of OHS for entrepreneurs and SEs a tentative, three level OHS model for SEs and entrepreneurs was developed in the Finnish Institute of Occupational Health. The model is an operational concept of OHS that is based on a long term collaborative developing in SYTY-project by the regional
organization for entrepreneurs in South-West Finland and the Finnish Institute of Occupational Health.

Results
The OHS-model for small enterprises and entrepreneurs consists of three levels ranging from one time consultative intervention by OHS professionals to a comprehensive, continuous OHS including promotive and preventive services and medical care.

The stages are:

1. One time consultative intervention
   - self assessment of health, work and working environment using a self-assessment questionnaire
   - consultation with an OH professional based on the information provided by the self-assessment questionnaire and discussion

2. Medium level service
   - follows from the first stage, if the client wants
   - regular contacts with the client (and the company) by OH personnel
     (Recall system by phone, e-mail, etc.)
   - preventive services and other activities are decided jointly by the client and the OH professional according to the situation

3. Comprehensive service
   - follows from the previous stage, if the client wants
   - comprehensive, traditional OH service model based on a documented action plan that includes predefined activities, follow-up and evaluation
   - in addition to preventive services, also curative services (general practitioner level) can be included

The model aims to activate entrepreneurs to take care of their own health and the health of their personnel. It ensures entrepreneurs and SEs an easy access to OHS and provides them with an
opportunity to get acquainted with the services. It enables them to choose the scope of services that best suit to their situation.

For OHS the model contributes a new operational framework for producing services that may help OH professionals to better answer to the varying needs and situations of entrepreneurs and SEs. The model offers OHS providers a flexible and an efficient way of operating, improves the cost effectiveness of their service production and decreases bureaucracy characteristic to the current OHS practice.

Implications
To utilize the model in practice and to develop it further requires systematic testing and development in collaboration with OHS providers, entrepreneurs and SEs, researchers and decision makers of the OHS system. The testing will be conducted in a pilot study, which is an integral part of a comprehensive entrepreneurship promotion project in Päijät-Häme region in Finland in autumn 2009. The project aims to improve the functioning and productivity of small enterprises and the well being of the entrepreneurs and small firms' personnel in the region.

In the pilot study, information concerning OHS is provided to the project participants and the entrepreneurs operating in the Päijät-Häme region. OHS providers of the region will be trained to use the model and provided with the basic knowledge about the challenges of entrepreneurship and small businesses to the occupational health and safety. After the training, OHS model will be tried in practice in a before and after study. A rigorous follow-up and evaluation of the usage and utilization of the model is included in the study. This information and the perceptions of the participants about the feasibility and usefulness of the model will be utilized in developing the model further to implement it to the Finnish OHS practice.

References


Presentations, session WS4.2:
Chair: Bo Bager (with Daniel Podgórski).

Time: Thursday 22 October, time: 15.15-16.45
Location: Atrium hall
‘Accountants as agents of change in relation to the new working environment undertakings of small companies’
by Bo Bager & Jannie Noer, managers, Capacent, Copenhagen, Denmark
Peter Hasle, National Research Centre for the Working Environment, Copenhagen, Denmark

Many small companies have difficulty living up to the demands of a systematic working environment effort because, among other things, of attitudes, a lack of motivation and scarcity of resources. At the same time, the working environment apparatus has had difficulty ‘getting through’ to small companies, for which reason it can be difficult for the usual working-environment players to influence the companies’ working environment undertakings.

Surveys have shown that accountants are small companies’ preferred, frequently sole external advisers. Accountants are perceived both as independent experts and intimate sparring partners who speak a company’s language, and a special relationship of trust exists between a company and its accountants. The purpose of the project was to obtain knowledge about the practical potential of using accountants in the preventive working environment effort. The design was an intervention study. Intervention was training of accountants. Focus was on training methods and tools relating to statutory working environment documentation. There were 164 accountants recruited to participate in the intervention course. The development of intervention method embraced four phases; reflection, pilot project, reflection/learning and revision. Data for analyses was collected through a full scale quantitative survey and a qualitative survey with a small number of accountants selected for interview.

The results show that accountants can play a role as agents of change as regards the working environment efforts of small companies, and that accountants to some extend is able, by transferring knowledge from experienced working environment consultants, to achieve a basic knowledge and understanding of working environment issues.
Small enterprises – accountants as occupational health and safety intermediaries

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Abstract

Small enterprises face serious occupational health and safety challenges. The occupational risks are high and resources to control the risks are low. There is an ongoing search for ways that authorities and professional bodies can efficiently reach out to small enterprises with preventive measures. It has been suggested in the literature that accountants could act as intermediaries on health and safety. A pilot project was carried out in Denmark to test this possibility. State-authorized accountants were invited to training seminars to give them the necessary health and safety knowledge to provide advice to small enterprises. 164 accountants participated in the seminars and 74 accountants replied to a follow up questionnaire about their experience of advising their small enterprise clients about health and safety. Most of the accountants had actually given health and safety advice and for most of them it was a positive experience. However, they also faced constraints due to the relatively minor role health and safety played in their agendas with their clients and their own limited knowledge about health and safety even after taking part in the training seminars. This study concludes that it is possible for accountants to act as health and safety intermediaries, but that institutional support for the training activities is important to secure a broader application of this approach.

Keyword:
Small enterprises, accountants, intermediaries, health and safety
1. Introduction

There is an ongoing discussion in the occupational health and safety community about small enterprises – especially those with less than 50 employees. It is generally recognized that these enterprises constitute a special problem with regard to prevention of occupational injuries. Small enterprises have a more hazardous work environment (Fabiano et al. 2004; Sørensen et al. 2007; Stevens 1999; Walters 2001). One of the key explanations for this situation is connected to management. Small enterprises are typically dominated by a combined owner-manager who is very often the sole person responsible for all or most activities not directly related to production. The owner-manager has to deal with sales, production planning, human resources, billing, and much more (Down 2006; Goffee 1996). The main focus for the owner-manager is the survival of the company, and for natural reasons health and safety will be a minor focus due to limited resources – both in term of money, manpower and knowledge about health and safety (Eakin 1992; Hasle & Limborg 2006). It is difficult for authorities, advisors and other intermediaries to reach the small enterprises with preventive measures (Champoux & Brun 2003; Hasle & Limborg 2006; Walters 2001). The cost of reaching out to the large number of small enterprises, the volatile and informal character of many small enterprises, and their limited capacity for absorbing external information are some of the major constraints.

Regulators and researchers have therefore looked for innovative approaches which could open the doors to small enterprises (Eakin et al. 2000; Walters 2001). There has been special interest in intermediaries outside the traditional health and safety system who might have easier access to the small enterprises. Among the ideas put forward have been chambers of commerce, local authorities, various public business advisory services, and collaboration between the labour market parties (See an overview in Walters 2001). One frequent suggestion has been the use of accountants. Almost all small enterprises receive services from an accountant, and the accountant could therefore be a window for contact to many small enterprises. A number of authors have suggested this possibility (Bibbings 2003; Hasle & Limborg 2006; Jensen et al. 2001; Lamm 1997; Walters 2001).

This paper is about the results from a pilot project in Denmark, which gave state-authorized accountants basic knowledge of the responsibilities of small employers with regard to health and safety, and subsequently followed the accountants’ experiences in using their new health and safety knowledge. We start the paper by reviewing the discussion about accountants as health and safety
intermediaries for small enterprises, and continue with a discussion of the particular role accountants play for small enterprises. After that follows a description of the materials and methods, and analysis of the empirical results. We conclude with a discussion of the opportunities for the further development of accountants as health and safety intermediaries.

2. Past research about accountants as health and safety intermediaries

The discussion about accountants as possible health and safety intermediaries started with an article in Safety Science by Felicity Lamm (1997). She had carried out a pilot survey among New Zealand chartered accountants, followed later by a survey in New South Wales and Queensland, Australia (Lamm 1999; Lamm 2000). Although the studies had relatively few participants and low response rates, the data from these countries clearly indicated that accountants at that time were already giving their clients advice on employment matters, including health and safety. This happened more frequently in New Zealand than in Australia. Another interesting aspect was that most of the accountants giving advice on health and safety had no prior training on the matter even though the New Zealand Society of Chartered Accountants’ Code of Ethics clearly requires accountants to secure their competence before giving advice (See p. 157 in Lamm 1997). Lamm concludes by arguing that the close relationship between small enterprises and their accountants could be used for more qualified health and safety advice, if communication between accountants, the health and safety authorities and the educational system could be increased.

Walker and Tait (1999) studied the role of business networks, including accountants, for health and safety management in small enterprises. Unlike the example above, none of the accountants interviewed had given advice on health and safety. However, interviews with representatives from the chartered accountants’ associations indicated an interest in giving health and safety advice, although they preferred an information-oriented approach rather than giving actual fundamental health and safety advice. James et al. (2004) found that less than 30% of small enterprises use external sources for information about health and safety and that the most frequent source was the health and safety inspector, which 15% of the firms used as an information source. Accountants appeared at the list as the sixth most frequent information source, but with a rather low percentage (1.6% of small enterprises).
Since then, several authors have recommended that ways to advance the role of accountants in health and safety advice should be found (Bibbings 2003; Gervais 2006; Hasle & Limborg 2006; Jensen et al. 2001; Vickers et al. 2005; Walters 2001). Some authors explicitly indicate the lack of knowledge among accountants (Jensen et al. 2001; Lamm 1997) and the lack of tools and educational materials (Bibbings 2003) as key constraints.

3. Accountants and small enterprises
From a health and safety point of view, the benefits of using accountants as intermediaries seem clear – provided they have the necessary competence in health and safety. They have contact with almost all small enterprises and usually the relationships are stable, which suggests relatively close and trusting relationships (Bennett & Robson 1999). It is also proposed that because accountants provide a necessary expertise this puts them in a potentially strong position to influence small enterprises (Kirby & King 1997). The question is then whether health and safety advice is an issue which fits in with the accountants’ own understanding of their business, so we will now turn to a discussion of accountants and their relationship with small enterprises.

Most small enterprises are served by independent accountants or accountants from small accountancy firms with less than 5 employees (Gooderham et al. 2004). In spite of the relatively close relationship, there seems sometimes to be a mismatch in expectations between accountants and small enterprises (Dyer & Ross 2007; Kirby & King 1997). Many small enterprise owner-managers believe that accountants and other business advisers do not understand the world of small businesses and do not give advice that is sufficiently practical (Dyer & Ross 2007; Mole 2002). Dyer and Ross (2007) suggest that business advisors, such as accountants, are trained in a rational approach which does not fit the more direct, emotional approach of small enterprise owner-managers. One major concern for accountants is to build strong and trusting relationships with their small enterprise clients (Robson & Bennett 2000), and the issue of health and safety must therefore fit into this priority if it is to be received positively by accountants.

The accountants’ role as the most important adviser for small enterprises has also been noticed by public authorities and researchers looking for means to assist small enterprises. One area of interest has been to examine the importance of accountants for the business development of small enterprises and how this role can be strengthened, possibly by expanding the type of advice from
narrowly financial advice to broader business and management advice (Bagchi-Sen & Kuechler 2000; Doving & Gooderham 2008; Gooderham et al. 2004; Marriott & Marriott 1996). To some extent, accountants are already involved in various advisory services outside the accounting service. Most accountants not only give advice on matters related to finance and economy but are also expanding into a broader field. For instance, in a Norwegian survey approximately one quarter of the accountants provide advisory services in management, organization and HRM, which shows that a considerable number of accountants provide services outside a narrow scope of traditional financial accounting (Doving & Gooderham 2008).

Health and safety can benefit from this trend towards expansion into new fields of advice on issues which in one way or another have economic consequences for the firms. However, some constraints can also be expected. It will be a priority for the accountants to maintain the relationship of trust and it will therefore be important for the accountant to have the necessary qualifications and to raise health and safety issues in a way that will seem a natural extension of accountancy advice.

4. The Danish context
The objective of the project was to test whether Danish accountants would be interested in advising small enterprises on occupational health and safety. A reform of the Danish health and safety regulations in 2004 introduced new obligations which could be a financial burden, especially for small enterprises. A compulsory affiliation to an occupational health service was replaced by the possibility of labour inspectors ordering a firm to use an authorized health and safety adviser if a company commits serious infringements of the legislation (Kabel et al. 2007). The cost for an occupational health and safety adviser could easily run up to €13,000, a substantial amount for a small enterprise with just a few employees. In some cases, this could be added to a fine of around €2,600. The threat of having such costs imposed can be considered a potential burden for the firm. The risk of costly obligations and fines could be considerably reduced by ensuring that all legal requirements for health and safety procedures are met, including risk assessment (in Denmark, termed workplace assessment (Jensen et al. 2001)), a safety organisation (if >9 employees), and hazardous materials safety data sheets.

1www.arbejdsmiljoviden.dk/Aktuelt/Magasinet_Arbejdsmiljo/Magasinoversigt/2004/10/Boder%20til%20faerre%20arbejdsgivere%20i%202003.aspx
Accountants cannot be expected to have or to achieve qualifications for a material audit of the work environment, but a check of the firms’ compliance with the legal requirements for written documentation would be more in line with other legal requirements accountants are concerned with in connection with financial risks. The question is whether Danish accountants could be convinced to take up such a line of advice and whether it could be carried out in a cost-effective manner. The main research question for this paper is therefore:

- Is it possible, with a relatively limited intervention, to induce accountants to give basic advice on legal health and safety requirements to small enterprise clients?

5. Materials and methods

An agreement about a joint project was entered into with the Institute of State-Authorized Public Accountants, the Danish organization of the equivalent of chartered accountants. The project included an intervention in the form of training activities for accountants in legal occupational health and safety obligations, a period for the accountants to implement health and safety advice, and follow-up studies of the outcomes for the accountants.

A focus group interview was organized with selected accountants identified by the Institute. The interview was used to prepare the training material and tools which were tested at a pilot seminar. The programme included the following topics:

- Legal requirements for written health and safety documentation
- Inspection procedures, orders and fines
- Introduction to workplace assessment
- Exercise in using specially designed tools for checking a company’s compliance with the legal requirements for written documentation
- The approach to accountant’s advice on health and safety

Three kinds of training seminars were offered to accountants in the autumn (which is the low season for accountants) of 2006 and 2007. The first one was organized as seven special seminars with three hours of health and safety training and 1.5 hours of introduction to pension schemes. The sessions were distributed around Denmark. The invitations for the seminars were e-mailed to the approximately 2,500 members of the Institute of State-Authorized Public Accountants, which also advertised the seminars on their website and in their membership magazines.
The second round of seminars was organised in the autumn 2007. They were a voluntary add-on module to one of several training courses that fulfill the compulsory post-graduate training for state-authorized accountants to maintain their qualifications and ensure upgrading in new legislation. The reason for this was partly to recruit more participants to the project and partly to test whether the instruction would work in a shorter one-hour version as a part of a larger programme. The programme was reduced to one hour of classroom teaching with no practical exercises.

The last round of training sessions was a repetition of the first special seminars for a local network group of registered accountants. These include accountants with less formal educational requirements and who are therefore not affiliated to the Institute. This seminar was based on the original three-hour programme.

5.1 Data collection
Both quantitative and qualitative data about the outcome of the intervention was collected. The quantitative data consists of the answers to two questionnaires. The first questionnaire (Survey A) was distributed to each of the participants at the conclusion of their seminar. It included questions about the accountant’s background, attitudes to health and safety advice, and the immediate experience of the training session. The second questionnaire (Survey B) was e-mailed to the accountants 6-12 months after participation in the training sessions. A link to the web-based questionnaire was mailed to the respondents. Non-respondents were subsequently contacted and interviewed by telephone. If it was not possible to contact the accountant after six phone calls, the accountant was registered as a non-respondent. Five e-mail addresses turned out to be invalid. The questionnaire contained questions about the accountant’s experience of giving advice to clients. The response rate for Survey A was high and moderate for Survey B (Table 1). The significance of the lower response rate for Survey B will be taken up in the discussion. An analysis of the non-respondents and respondents to Survey A showed no significant differences between the two groups. Background variables for the respondents and the non-respondents were compared for seniority, State-Authorized Public Accountants vs. Registered Accountants, and the size distribution of client companies.
Table 1. Questionnaire data

<table>
<thead>
<tr>
<th></th>
<th>Respondents</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Number of</td>
<td></td>
</tr>
<tr>
<td>questionnaires</td>
<td>distributed (N)</td>
<td></td>
</tr>
<tr>
<td>Survey A</td>
<td>164</td>
<td>159</td>
</tr>
<tr>
<td>Survey B</td>
<td>154²</td>
<td>74</td>
</tr>
</tbody>
</table>

² The difference between survey A and B is due to invalid email addresses

The qualitative data originates from semi-structured interviews with 13 accountants selected among the ones who responded to survey B and had indicated that they had used the information from the seminars in their advice on health and safety to their clients. They were stratified by sex, geography, and state-authorized or registered accountants. The interviews were taped and transcribed. In addition, observations from the training sessions and a number of formal and informal encounters with the Institute are also included as qualitative data.

6. Quantitative results
Altogether 164 accountants took part in the training sessions provided by the project. Out of the seven planned seminars in 2006, two seminars in the smallest towns were cancelled because there were too few participants. The remaining five were implemented with approximately 20 participants in each and a total participation of 100 accountants. The second round of training seminars in 2007 had 49 participating accountants. The Institute said that participation in the health and safety seminars was at the same level as most other similar activities. The third training round was initiated by a network of mainly registered accountants who had noticed the project and wanted to learn more about health and safety. From the network, 15 out of 28 members took part.

The written material, which was handed out to the accountants during the seminars consisted of:
- Simple workplace assessment method targeting small enterprises
- Specially designed check list for a company’s compliance with the legal requirements for written documentation
- Power point presentation from seminar
- List of relevant legislation and relevant knowledge resources with internet links
There were no significant differences in answers from accountants who participated in the long version of the seminars and those who took the shorter one-hour version, when testing for the number of clients visited per month, distributing written material to clients, raising health and safety issues with their clients or following up.

Survey A showed that most of the participants came from small accountancy firms (<16 employees) and most of them were owners/partners. The majority of their customers were also small enterprises with <20 employees. The participants turned out to have some prior experience with health and safety: 29 (18%) of the 159 respondents had already advised or informed clients about health and safety, mainly with regard to workplace assessment, and 20 (13%) of the participants had experienced clients asking about health and safety. Altogether a little less than 24% had at least some prior experience with health and safety as a topic touched upon with their clients.

The vast majority of the participants in the seminars (97%) indicated in Survey A that the training had given them an inclination to raise health and safety issues with their clients. Furthermore, they wanted to inform clients and distribute material whereas a bit smaller, but still large majority wanted to give advice and follow up with clients (around 90%).

6.1 Experience of advising clients

Only 74 accountants replied to the follow up questionnaire (survey B), and out of these nine indicated that they had not had any client contact during the follow-up period. Out of the remaining accountants, 46 (71%) replied that they had raised health and safety as an issue with their clients. Ten (22%) of these had spoken about health and safety with all their clients, but on average the accountants had talked health and safety with one in eight clients.

The 19 accountants who did not raise health and safety with their clients indicated that they found other issues to be more important. A few (5) also assessed that the client was in sufficient control of health and safety, and only five accountants experienced that their clients were not interested.
With regard to the type of communication with the client, almost all the accountants, 46 (71%), of those who had contacted clients since participating in one of the seminars, indicated that they had given information or distributed written material. An advisory role in the form of explaining how to use the guidelines, giving more general advice, and checking the written documentation of the workplace was played by 23 (50%). For the majority of the accountants, the topics in the communication of health and safety had included the requirement for compulsory workplace assessment, the possible economic consequences of deficiencies in the health and safety documentation, and the procedure for the screening of workplaces by labour inspectors. Four out of five accountants felt that advising their clients on health and safety was a positive experience, and only a very few (6) felt it was a negative experience. Most of the accountants were also inclined to continue giving advice on health and safety.

Most of the respondents did not follow up on their advice to their clients. The accountants (17) who did follow up reported that at least some of their clients had implemented improvements – most by implementing workplace assessment, but some also carried out concrete improvements of the work environment.

7. The qualitative results
The quantitative results show that the majority of the responding accountants actually did raise health and safety issues with their clients. The qualitative interviews provide a more in-depth understanding of the accountant-client relationship and the way accountants put health and safety into that context.

The accountants described a relationship of trust with the clients: “One has a relationship of trust with the clients, and that can be used for advising the customers – because we know them. That relationship is very important, and the closer it is, the easier.”

Several accountants used the family doctor as a metaphor for their relationship with their small enterprise clients. Their experience was that the owner-managers of the small enterprises often lacked someone who could give feedback on the daily development of their company. The accountant is often the only one who takes that role. And when the client had more difficult
problems beyond the accountant’s in-depth expertise, they could refer to the relevant specialists. But the accountant’s role is also limited due to the time constraint. Most accountants have only one annual face-to-face meeting with the small enterprises, and that meeting therefore has a heavy agenda. The accountant has therefore to consider what is most relevant to raise with the client in the situation.

The core activity in the relationship is examination of the annual accounts and related financial advice. Health and safety is a peripheral issue which has to be added into the context. But most of the accountants indicated in the interviews that it was valuable to include health and safety as an issue of importance for the clients. Due to the limited role of health and safety advice, they did not usually treat the issue as a business matter for which they could separately charge the client. They treated health and safety as an additional aspect that they could use to complement their advice given on a wide range of other issues.

The accountants described how they evaluated the client situation when considering whether and how to discuss health and safety. They tended not to raise health and safety with larger enterprises, because they felt that these generally had the necessary knowledge and resources to fulfil the legal requirements. With the smaller enterprises, the accountants chose various strategies. Some of them assessed the hazards of the workplace and only raised health and safety if they felt the workplaces were hazardous, while others decided to ask about health and safety in most cases and then let the answers from the client decide whether to follow up with advice or just leave with the first introductory question. They mentioned as important the fact that health and safety could form part of the ordinary advice, and they used expressions such as: “I try to weave health and safety naturally into the conversation.”

All the accountants interviewed explained that the clients reacted positively and displayed a favourable attitude towards raising the issue. Some of them explained that they were surprised by the positive response: “I did not experience any resistance……Everybody was surprisingly obliging.” But it was still a minor issue among many others on the agenda. Some clients complained about the health and safety regulations, which they felt were bureaucratic and difficult for small enterprises, but this reluctance towards the regulatory authorities was not turned against the accountants when they introduced health and safety as an issue.
Some of the accountants felt constrained by their limited knowledge about health and safety. They explained that as time passed the information from the training session tended to wither, and that this could be a problem when the client asked for help: “I would like to learn more about it [health and safety] … then one would be better able to give advice … I can ask about how they handle workplace assessment, but I am not equipped to help.” This indicates a need for more knowledge as a condition for expanding their advice on health and safety.

8. Discussion

This paper presents data from a pilot project testing the prospects of using accountants as health and safety intermediaries. The number of study subjects is relatively small, with 164 accountants participating in the training seminars. But those who took part in the training seminars constitute more than 5% of the membership of the Institute of State-Authorized Public Accountants and that must be considered a reasonably high proportion for a new issue which has not been raised beforehand in the Institute. However, it must also be expected that those who took part are among those most positive about health and safety as a possible advisory issue for accountants and interest among the remainder of the membership might be somewhat lower. With these reservations, it still seems possible to conclude that it is feasible to interest accountants in health and safety as an issue for advice.

For the evaluation of the effect of the training seminars, the response rate is also an issue for reflection. The follow-up survey had 74 respondents, which is a response rate of 48%. This means that the results can only be regarded as indicative. However, numbers and response rates in research on accountants and small enterprises are often lower, with even fewer respondents and rates in the range of 20-30% (Doving & Gooderham 2008; Kirby & King 1997; Lamm 1997; Mole 2002). This suggests that it is difficult to get high response rates from accountants. Comparison between the respondents and non-respondents showed no significant differences.

The majority of the accountants did use the information provided at the training seminars to communicate with their small enterprise clients about health and safety. Some of them only used it to pass on the information, but most of them took a more advisory approach, explaining the legal requirements and the written information, asking about compliance by the client and checking
whether the client followed up on the advice. However, the majority of the respondents did not follow up on the advice given. This might be due to lack of opportunity because they rarely have meetings with their small enterprise clients – usually only once a year.

The accountants generally experienced a positive response but also felt somewhat constrained by their limited knowledge about health and safety. That result indicates that although short seminars worked as an introduction, it is important to follow up with more in-depth training. It is still an open question as to how much training accountants would be willing to undertake.

There is also the risk of a reduction in interest as the time passes after the training seminars, but approximately one quarter of the respondents to Survey A had prior experience of discussing health and safety. This suggests that the subject spontaneously comes up in the accountant-client relationship, which would help keep it on the agenda. This finding also confirms earlier findings from other countries. This is especially clear in Australia and New Zealand (Lamm 1997; Lamm 2000) but also to some extent in the UK (James & Baldock 2004), and perhaps as part of the HRM advice in Norway (Goodeham et al. 2004).

One of the constraints for assessing the potential for accountants as health and safety intermediaries is our lack of knowledge about the impact of their advice on small enterprises. This aspect was not included in this project, and it is therefore an important question for future research. In this project we only have the answers given by the accountants who said that they followed up on their health and safety advice. They all said that at least some clients implemented improvements after the discussion on health and safety. Most often the improvement was an implementation of the compulsory workplace assessment, but material improvements were also noted in a number of cases. The quality of these improvements cannot be judged, but the answers are at least indicative of some sort of action following the accountants’ advice.

It is important not to overestimate the potential effects of the advice of accountants in this field. The accountants, and probably also the small enterprise clients, consider health and safety as a minor issue compared to many other issues which are important for the survival of the firm. It is therefore not likely that the accountants will have a strong impact on the small enterprises. Their role has to be considered in the broader perspective of governance (Kooiman 2000; Rhodes 1997), in which
several actors in networks play a role in furthering public objectives. In this case small enterprises are already subject to inspections, and they also have access to a lot of information material and authorized health and safety advisors. However, many small enterprise owners do not see the connection between their daily operation, legal requirements and health and safety. The accountants could help them in this since they are among a very limited number of advisers. The accountants could pave the way for more specialized health and safety advice by encouraging owner-managers to reflect on the need to take action on health and safety. In this way, they might save owner-managers from exposing themselves either to inspectors, with the risk of sanctions, or to health and safety advisers, which might lead to a costly bill.

9. Conclusion
The results from this project show that it is possible to interest accountants in participating in training sessions on health and safety, and that most trained accountants would use the knowledge provided at the training to give advice to their small enterprise clients. There is obviously a need for additional research to further establish the full potential to the approach explored here. The available data is limited and it would be valuable to have comparable results from other countries. The reactions from the small enterprise clients would be particularly interesting.

Perhaps the most important question is to find a way of implementing a similar project on a broader scale. This project suggests a positive impact from a relatively limited training effort. However, individual accountants and therefore also their organisations consider health and safety a minor issue in their client relationship, and they have good reasons for that attitude. As society has an interest in initiating improvements in health and safety in small enterprises, it is up to the authorities to push for more accountant involvement in health and safety. That could be done for instance by organizing regular health and safety training activities for accountants in collaboration with their organizations such as the Danish Institute of State Authorized Public Accountants. These organizations cannot be expected to have the resources and the knowledge to provide training on a larger scale.

If such an approach were implemented, the results from this project suggest that accountants as health and safety intermediaries can have a positive effect on the work environment in small enterprises.
Acknowledgement

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WS4.2-2 Abstract:

‘Taking Occupational Health to Small and Medium Sized Enterprises’
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Problem statement and aim: Small enterprises have lacked knowledge of and access to occupational health services (OHS) in the UK. The aims were therefore:
a. To understand the obstacles to knowledge dissemination and the barriers to access of OHS by small businesses
b. To develop a range of services designed to meet the occupational health needs of small businesses

Approach/method(s) used: Research was commissioned to understand the demand for occupational health from smaller businesses and the most effective way to promote OHS. The research consisted of a representative sample of SMEs [387 organisations from all sectors employing 30-250 staff]. The results of the research were used to make strategic changes in the OH Service at York NHS Plus and expand services to small business. The changes in approach included:
a. Restructuring the existing team to create a Business Team, lead by a Business Development Manager.
b. The formation of a telephone support line for all existing clients.
c. Extending the range of services being offered to business to include physiotherapy, counselling and manual handling.
d. Establishing links with business support organisations as an indirect channel to market and promote our service.

Results:
a. By adopting this research and approach, NHS Plus at York increased its SME client base by 19% in 2008/09.
b. It increased sales year-on-year by 48% in 2008/09, doubling market share within its target market to 6.8% of all outsourced occupational health.
c. In the last year, York NHS Plus has increased the number of employees to whom it provides services by a further 14,000.

Conclusion(s)/implication(s): Two key observations have resulted from the research and new approach:
a. A SME’s propensity to purchase OHS is not dependent on its location.
b. Indirect channels to the target market provide the most significant opportunity for the NHS to sell OHS to small businesses
Paper

Reaching out to Small and Medium Sized Enterprises: An Occupational Health & Wellbeing Case Study

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Brief Abstract Summary

Problem statement and aim
Small businesses have lacked knowledge of and access to occupational health (OH) in the UK. The aims were therefore:

a. To understand the barriers to access of OH by small businesses.
b. To develop a range of services designed to meet the OH needs of small businesses.

Approach/method(s) used
Research was commissioned to understand the demand for occupational health from small businesses and the most effective way to promote OH.

1. The results of the research were used to make strategic changes in the Service at York NHS Plus.

Results
York NHS Plus increased its Small and Medium-sized Enterprises (SMEs) client base by 19% in 2008/09 from the previous year, and employees to whom it provides services by a further 14,000.

Conclusion(s)/implication(s)

a. A SME’s propensity to purchase OH is not dependent on its location.
b. Indirect channels to the target market provide the most significant opportunity for the NHS to provide OH to small businesses.
Key words:
Occupational health, small enterprises, barriers to access, NHS Plus

Introduction
This paper describes the work and research undertaken by NHS Plus in developing a methodology for providing occupational health support to smaller businesses in England. It then explores a case study demonstrating the implementation of the research by one of its network members in York, North Yorkshire, England.

NHS Plus is the name given to part of the UK Government’s Health, Work and Wellbeing Strategy. NHS Plus promotes the benefits of good health at work and aims to build healthy and productive workforces. It operates through a network of 112 NHS occupational health departments in England who aim to provide OH services to organisations other than their own.

York NHS Plus is the name for the Centre for Occupational Health & Wellbeing (OHW) of York Hospitals NHS Foundation Trust. York Hospital is the largest acute NHS Trust in the county of North Yorkshire, England serving a local population of 350,000 and employing 4,500 staff. The OHW was first established in 1973 to look after the health and wellbeing of the local NHS staff. In 1994, the OHW started providing services to non-NHS organisations on a small scale. In 2001, the OHW became an accredited member of NHS Plus.

NHS Plus Developments
In 2007/08 NHS Plus secured a capital fund of £10 million provided by the Department of Health in England to support five Occupational Health departments to become demonstration sites and develop innovative approaches in improving the way they offered and delivered their services to smaller businesses in particular. York NHS Plus was successful in its bid for £1.4 million to purchase and renovate new premises on a retail and business park on the edge of the city of York. The Service opened in September 2008, providing a much enhanced environment to both clients and staff working within the Service, by providing enhanced facilities and more clinical space. It has also more than doubled the number of consulting rooms to 14 in total, and rents consulting space to private sector providers of other services including physiotherapy and psychotherapy. The OHW has started to work closely with these providers to further enhance the range of services that
can be made available to smaller enterprises as part of a holistic approach to health and wellbeing. The OHW is currently in discussions with specialist providers of services covering osteopathy, complementary therapy and human resources advice to add to its multi-dimensional service set.

One of the main strategic objectives of NHS Plus is to provide access to occupational health advice and support to smaller businesses in England. However, the evidence amongst the 112 NHS Plus providers reveals significant barriers in encouraging smaller enterprises to understand the way in which good OH could support their business, and significant barriers in encouraging such businesses to purchase OH services.

This abstract provides a case study around the approach taken by NHS Plus to research the problem and to identify the optimum way of delivering OH to smaller enterprises.

**Approach/Method**

NHS Plus commissioned market research in order to analyse the possible barriers to disseminating OH information to small business and the barriers small business face to accessing and purchasing OH services. The results of the research and analysis were incorporated in the development of appropriate strategies to deliver OH services.

**Market Research**

In order to establish effective OH business strategies, NHS Plus commissioned a major piece of research from a marketing company (Strategycom) to allow for in-depth analysis into the demand for occupational health services from smaller businesses. The research also needed to suggest the most effective way to promote these services (NHS Plus Market Research, Strategy, 2007). This research was conducted on behalf of the first 5 NHS Plus demonstration sites.

The research consisted of a quantitative study of a representative sample of Small and Medium Sized Enterprises (SMEs) [387 organisations from all sectors employing 30-250 staff] and qualitative study of potential strategic partners.

NHS Plus made available to Strategycom a number of key documents to inform this work which included the following documents that were used to underpin the approach and recommendations:
- Reaching Small & Medium Enterprises¹.
- Sickness absence and rehabilitation survey².
- The UK Occupational Health Market Development³.
- Workplace Health Connect Progress Report⁴.
- Health Matters: The small business perspective⁵.

A review of all documents made available to Strategycom, together with discussions with each demonstration site, enabled Strategycom to establish two issues that were fundamental to the approach adopted. These included:

1. A SME’s propensity to purchase OH services was not dependent on its location.
2. Indirect channels to the target market provided the most significant opportunity for the NHS to provide OH services to SMEs.

These issues enabled Strategycom to undertake quantitative research using a smaller than anticipated sample [see Quantitative Marketing Research] and introduce a qualitative marketing research phase [see Qualitative Marketing Research] that established indirect channel opportunities with market influencers.

Desk research by Strategycom identified a number of barriers that NHS Plus needed to overcome in order to effectively market and sell OH services to the SME sector. These observations were drawn from the market reports cited earlier in this section and can be summarised as follows:

¹ Reaching Small & Medium Enterprises, 2004 - The Focus Group
² Sickness absence and rehabilitation survey, 2007 – The EEF
³ The UK Occupational Health Market Development 2007 - MBD
⁴ Workplace Health Connect Progress Report, 2007
⁵ Health Matters, 2006 – Federation of Small Business
• OH still sat at the margins of the SME corporate agenda in terms of actions.
• The number of SMEs monitoring sickness absence was still too low; subsequent research has, however, established that the number is increasing.
• There had been no real shift in the number of SMEs who would be prepared to pay for a service aimed at helping them establish good OH policies and practices.
• Only a third of SME staff were directly involved in OH issues.
• SME purchase behaviour for OH suggested a reactive (non-risk assessed) approach.
• SMEs viewed OH as primarily a health, as opposed to a business, issue.

Despite the fact that the SME sector did not typically place OH at the heart of its business performance management, secondary research established a number of opportunities that providers of NHS OH services could take advantage of. These can be summarised as follows:

• The majority of SMEs had a Health and Safety policy – with guidance this could be used to help SMEs consider the wider significance of OH.
• The majority of SMEs said that they rated the importance of good OH practices as high.
• An increasing number of SMEs appeared to be monitoring sickness absence.
• The majority of SMEs would like to access OH services as part of an integrated business support services ‘package’.
• Four-fifths of SMEs said they would find an OH assessment of their business helpful.

Quantitative Marketing Research: Research Stage One

Rationale
A number of reports evaluated clearly identified that a SME’s propensity to buy OH services is analogous to its size and sector of operation. In addition, research also established that the location of the SME had no influence over its propensity to purchase OH services. In effect, the profile of a SME was far more determinant than its location, despite regional differences in terms of health indices. On this basis, Strategycom designed the research on the following basis:
The population of interest for this study was all SMEs within the serviceable regions of the five pilot sites that employ between 30 and 250 staff [i.e. those ‘medium sized’ SMEs most likely to provide a return on investment for the pilot sites in years 1 to 3].

A single sample representative of all SMEs with the above profile was used and the results applied to each site [i.e. the need to achieve representation for each regional population of interest was not necessary].

In order to achieve representation, Strategycom designed the quantitative research to deliver results within 95% confidence levels and 5% confidence intervals [i.e. 95% confident that a stated result (+/- 5%) is true for the population as a whole]. These parameters are typical for research of this nature and were used as the basis for calculating sample size.

Observation: It must be noted that references to a SME within this report relate to a SME whose profile is the same as that used to define the population of interest in this study – i.e. organisations with 30 to 250 staff.

In essence, the research was designed to stratify the sample between each pilot site thereby achieving results for approximately 76 SMEs within each pilot site. This enabled representative results for SMEs in general and indicative results for SMEs using a number of filters, such as region and SME size.

Telephone interviewing was used to undertake the survey of this data set utilising a computer-aided telephone interviewing [CATI] system. As a result:

- Responses were directly entered into a SNAP survey software system for immediate, ongoing and real-time analysis. This negated the need for lengthy and expensive duplicate data entry.

- Interviewers were able to work to a loose script depending on the nature of the interview, so the same aim was achieved through a variety of questioning techniques/script designs.
• Explanations were provided where an interviewee was not sure or was unclear about a particular question.

**Approach**

Each site was provided with business statistics relevant to their serviceable region [as specified by local Council or unitary authority]. This data was sourced from 2006 government statistics and provided an accurate guide to the size of the target population for each site.

In order to source this data for each site, the unitary authority regions were translated to postcodes [where possible] and these used to analyse Experian data highlighting the number and type of businesses by area. As expected, the number of records sourced was fewer than the true market size but provided a significant population of interest from which a sample could be extracted. The SME data was purchased for each of the NHS Plus demonstration sites and used to populate Strategycom’s survey system.

Strategycom, through consultation with each site, developed and agreed an interview script. A series of closed and open-ended questions were further developed into the research questionnaire which was split into four key phases:

- Qualification of data.
- Measurement of specific business issues across the sample.
- Attitude and buyer behaviour with regard to Health and Safety.
- Knowledge, attitude and buyer behaviour with regard to OH.

This questionnaire was loaded onto the SNAP survey system and the interviewers used a random number generator to select records to contact. Where the recorded individual was not available, another record was randomly selected from the data set. Interviews were conducted over a four week period throughout October and November 2007.

**Qualitative Research: Research Stage Two**

A key driver of the success of any campaign centres on the channels chosen to both market and deliver OH services into the SME sector. NHS Plus firmly believes that the interface between
client and provider should be delivered by intermediaries who already have established channels into the target sectors. It has been suggested that SMEs will react better to a proposition that delivers the business benefit as opposed to the health benefit; and that organisations, such as Business Link for example, are better placed to develop the interface on this basis. As a result of this, a key part of the research project looked to establish how to develop a proposition that could be taken to organisations that are key market influencers and that have a defined route to market.

Rationale
In order to establish how to engage with strategic partners, a number of interviews were undertaken with key decision-makers within the following organisations:

- The Regional Development Agencies [these bodies hold a number of business service contracts including Business Link, UK Trade and Investment, Manufacturing Advisory Service, etc.].
- Associations and industry bodies that represent the interests of their members.
- Other generic support agencies such as the Confederation of British Industry and the Institute of Directors.

This research served to underpin the approach and emphasis of the quantitative marketing research

Approach
In order to agree which strategic partners should be contacted, each site was sent a list of support organisations located in their region. This list was generated from both internet research and from the existing contacts of Strategycom. Each site was invited to supplement this list with specific contacts that would be relevant to this research.

The lists were then ordered by region and further research was undertaken to identify the key decision makers relevant to this project. A two-stage approach was then initiated. The initial approach consisted of a telephone call to clarify that the named contact was the most appropriate person to interview; and if not, then to determine the most appropriate individual to approach. Once this was established, a face-to-face meeting or a telephone interview was arranged.
A semi-structured interview format was used, avoiding a formal script, to ensure that a range of key points were explored with each interviewee. Regarding the interviewee’s organisation, questions were asked in relation to the following areas:

- Background of the organisation.
- Nature of services provided.
- How services are offered.
- How services are marketed.
- Organisational structure, including number of advisers in the field [if appropriate].
- Geography covered.
- Key projects in OH or related areas.
- Inter-relatedness with other business support organisations.
- National structure of the organisation.
- Key performance metrics.

The majority of interviewees were experienced and knowledgeable about SME business support and were invited to comment on how they perceived the NHS could target SMEs. Open questions were asked regarding the proposition to SMEs.

All interviewees were advised of the context of the research. Some requested information on the project and appropriate background information currently in the public domain was sent. The interviews took place during October and November 2007 and a short report was developed for each of these interviews.

**Market Data**

Detailed business data, collated from government statistics\(^6\) for each site was extrapolated to identify the number of businesses by employee number [size] and sector of operation. This data, together with quantitative statistics drawn from specific industry reports\(^7\), enabled Strategycom to develop a set of base data from which a series of projections, both nationally and regionally, were made.

\(^6\) UK Business Rounded data report - 2006
\(^7\) The UK Occupational Health Market Development 2007 – MBD
Figure 1 summarises the market data that was used as a base for calculations. In addition, Figure 2 cross-tabulates this data with market data and projected this at regional level to provide an estimate of market size for each of the five NHS Plus pilot sites.

<table>
<thead>
<tr>
<th>UK OH market size [2006]</th>
<th>£367m</th>
</tr>
</thead>
<tbody>
<tr>
<td>% increase 2002 to 2006</td>
<td>35%</td>
</tr>
<tr>
<td>Projected annual increase 2007 to 2011</td>
<td>3%-5%</td>
</tr>
<tr>
<td>UK OH market size [2006] for outsourced services</td>
<td>£189m</td>
</tr>
<tr>
<td>% increase 2002 to 2006</td>
<td>54%</td>
</tr>
<tr>
<td>Projected annual increase 2007 to 2011</td>
<td>4%-6%</td>
</tr>
</tbody>
</table>

Figure 1. The OH Market

There are expected to be stronger growth levels in outsourced services which are anticipated to account for 53% of market share by 2011. This growth and market development is expected to be boosted by an increasing attention to healthcare by employers due to legislative pressures and, most importantly, an increased awareness of the link between OH and business performance.

Figure 2 establishes some estimates as to the market size for each of the 5 NHS Plus pilot sites. It must be noted that these are based on the unitary authorities each site suggested they could effectively service with an OH proposition and should be used as a guide only. For the purposes of the research, the key SME target market for the NHS OH proposition has been identified as those SMEs with 30-250 employees [medium sized business] and data was purchased from Experian on this basis.

8 The UK Occupational Health Market Development 2007 – MBD
<table>
<thead>
<tr>
<th></th>
<th>Buckinghamshire</th>
<th>Cambridge</th>
<th>Hammer-smith</th>
<th>Portsmouth</th>
<th>York</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All UK businesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,088,885</td>
</tr>
<tr>
<td>All UK SMEs [0-250 emps]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,074,400</td>
</tr>
<tr>
<td>All site businesses</td>
<td>23,998</td>
<td>16,995</td>
<td>117,860</td>
<td>27,050</td>
<td>86,020</td>
<td>271,923</td>
</tr>
<tr>
<td>% of U.K</td>
<td>1.1%</td>
<td>0.8%</td>
<td>5.6%</td>
<td>1.3%</td>
<td>4.1%</td>
<td>13.0%</td>
</tr>
<tr>
<td>Value of UK OH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>£367m</td>
</tr>
<tr>
<td>Value of UK OH outsourced</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>£189m</td>
</tr>
<tr>
<td>Regional value [all OH]</td>
<td>£4.2m</td>
<td>£2.98m</td>
<td>£20.7m</td>
<td>£4.75m</td>
<td>£15.1m</td>
<td>£47.70m</td>
</tr>
<tr>
<td>Regional value [outsourced]</td>
<td>£2.17m</td>
<td>£1.53m</td>
<td>£10.6m</td>
<td>£2.44m</td>
<td>£7.78m</td>
<td>£24.60m</td>
</tr>
<tr>
<td>2011 value [all OH]</td>
<td>£5.13m</td>
<td>£3.77m</td>
<td>£26.1m</td>
<td>£6m</td>
<td>£19.1m</td>
<td>£60.34m</td>
</tr>
<tr>
<td>2011 value [outsourced]</td>
<td>£2.77m</td>
<td>£1.95m</td>
<td>£13.5m</td>
<td>£3.11m</td>
<td>£9.93m</td>
<td>£31.39m</td>
</tr>
<tr>
<td>Regional SMEs [0-250 emps]</td>
<td>23,875</td>
<td>16,890</td>
<td>116,400</td>
<td>26,900</td>
<td>85,425</td>
<td>269,490</td>
</tr>
<tr>
<td>% of region</td>
<td>99.5%</td>
<td>99.4%</td>
<td>98.8%</td>
<td>99.4%</td>
<td>99.3%</td>
<td>99.1%</td>
</tr>
<tr>
<td>Regional Micros [0-4 emps]</td>
<td>17,855</td>
<td>11,670</td>
<td>80,705</td>
<td>18,170</td>
<td>55,970</td>
<td>184,370</td>
</tr>
<tr>
<td>% of region</td>
<td>74.4%</td>
<td>68.7%</td>
<td>68.5%</td>
<td>67.2%</td>
<td>65.1%</td>
<td>67.8%</td>
</tr>
<tr>
<td>Regional Small [5-29 emps]</td>
<td>4,930</td>
<td>4,167</td>
<td>29,120</td>
<td>7134</td>
<td>23,873</td>
<td>69,224</td>
</tr>
<tr>
<td>% of region</td>
<td>20.5%</td>
<td>24.5%</td>
<td>24.7%</td>
<td>26.4%</td>
<td>27.8%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Regional Medium [30-250]</td>
<td>1,090</td>
<td>1,053</td>
<td>6,575</td>
<td>1,597</td>
<td>5,582</td>
<td>15,897</td>
</tr>
<tr>
<td>% of region</td>
<td>4.5%</td>
<td>6.2%</td>
<td>5.6%</td>
<td>5.9%</td>
<td>6.5%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Experian data by post-code</td>
<td>824</td>
<td>1,067</td>
<td>2,082</td>
<td>1,611</td>
<td>920</td>
<td></td>
</tr>
<tr>
<td>Population of interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6504</td>
</tr>
<tr>
<td>Sample achieved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>387</td>
</tr>
</tbody>
</table>

Figure 2. Market Size/Value Estimate
Results

Business Environment

From a comprehensive range of business issues, interviewees (the SME managers) identified financial management, marketing [sales], human resources and legislation [legal] as the most important business issues affecting their day-to-day operation. Occupational health was not considered important although it must be noted from the telephone interviews that in excess of 40% of SMEs who employ between 30-250 staff did not understand what is meant by the term ‘occupational health’.

Observation: In order to provide services that are not considered core to the day-to-day management of SMEs, NHS Plus must align market propositions with core business issues such as sales, financial management, HR and legislation.

Observation: In any market environment, a proposition or service name that is not understood by almost 50% of the target market has serious implications for the viability of the proposition and success of any market entry or growth strategy. Clinical or non-business terminology is not necessarily appropriate or relevant to business and the required market position may be difficult to achieve using the current product language.

Over 80% of SMEs with 30-250 staff thought that managing sickness absence, effective health promotion and staff support was key to their business performance. Interestingly, 88% of SMEs actively managed their sickness absence levels [i.e. assessed the impact of sickness absence on their business efficiency], yet only 25% of the same sample had ever purchased, or believe they had ever purchased, OH services. These results suggested that SMEs, whilst recognising the importance of sickness absence management, did not necessarily make the connection to OH or see OH as the solution to these important business issues. Indeed, the 25% of SMEs who had purchased OH had been driven by legislation and statutory requirements and not decisions driven by bottom line performance.

Observation: A typical SME does not necessarily recognise OH as a solution to sickness absence issues and the majority of OH purchase decisions are driven by legislation.
SME managers from the telephone interview were asked to rate, in terms of the importance to their business effectiveness and performance, a number of services that typically constitute a portfolio within an OH proposition [using a scale of 1 to 5 where 1 is essential and 5 is unimportant]. This question was filtered between those SMEs that had purchased some OH services in the past 24 months [94 respondents (25%)] and those that had not [294 respondents (75%)]. Each service element has been ranked on its importance using a mean [from a scale of 1 to 5, where 1 is very important and 5 unimportant] of all responses. Figure 4 below summarises the results.

<table>
<thead>
<tr>
<th>Service Element</th>
<th>Not Purchased Importance Mean</th>
<th>Purchased Importance Mean</th>
<th>Purchased Rank</th>
<th>No. of Purchases</th>
<th>% of all Purchases</th>
<th>% of whole Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>H&amp;S advice</td>
<td>1.72</td>
<td>2.25</td>
<td>2</td>
<td>64</td>
<td>68.1%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Manual handling advice/training</td>
<td>1.92</td>
<td>2.60</td>
<td>4</td>
<td>50</td>
<td>53.2%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Staff rehabilitation</td>
<td>1.97</td>
<td>2.59</td>
<td>3</td>
<td>36</td>
<td>38.3%</td>
<td>9.3%</td>
</tr>
<tr>
<td>Pre-employment screening</td>
<td>2.01</td>
<td>3.10</td>
<td>9</td>
<td>45</td>
<td>47.9%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Environmental visits</td>
<td>2.23</td>
<td>2.93</td>
<td>6</td>
<td>47</td>
<td>50.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Sickness absence management</td>
<td>2.30</td>
<td>2.04</td>
<td>1</td>
<td>32</td>
<td>34.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Health promotion</td>
<td>2.33</td>
<td>2.94</td>
<td>7</td>
<td>32</td>
<td>34.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>Staff counselling</td>
<td>2.47</td>
<td>3.08</td>
<td>8</td>
<td>47</td>
<td>50.0%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Health surveillance</td>
<td>2.59</td>
<td>3.26</td>
<td>10</td>
<td>56</td>
<td>59.0%</td>
<td>14.5%</td>
</tr>
<tr>
<td>Stress management services</td>
<td>2.63</td>
<td>2.76</td>
<td>5</td>
<td>27</td>
<td>28.7%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Infection control advice</td>
<td>2.96</td>
<td>3.56</td>
<td>11</td>
<td>17</td>
<td>18.1%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Physiotherapy referrals</td>
<td>3.18</td>
<td>3.76</td>
<td>12</td>
<td>32</td>
<td>34.0%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Other specialist referrals</td>
<td>3.37</td>
<td>3.94</td>
<td>13</td>
<td>29</td>
<td>30.9%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Vaccinations [workplace risks]</td>
<td>3.47</td>
<td>3.95</td>
<td>14</td>
<td>23</td>
<td>24.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Drivers medicals</td>
<td>3.81</td>
<td>4.65</td>
<td>16</td>
<td>18</td>
<td>19.1%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Vaccinations [travel]</td>
<td>4.19</td>
<td>4.35</td>
<td>15</td>
<td>19</td>
<td>20.2%</td>
<td>4.9%</td>
</tr>
</tbody>
</table>

Figure 4. OH Buyer Behaviour
These results demonstrated that SME OH purchase patterns were not specifically related to the importance SMEs placed on particular service elements. This further underpinned the observation that purchase decisions are driven by macro factors, particularly legislation, typically affecting the SME environment.

**Observation:** It appears that the market is immature, unaware of the benefits OH can deliver and has not established any significant purchase patterns. In addition, the results suggest that barriers to entry are high. However, significant opportunities should exist for market entrants with a clearly defined and positioned OH proposition.

Interviewees were prompted to identify the staff-related ill health issues they have experienced in the past 24 months. 47.6% [185] of the sample had experienced issues of long-term sickness absence with their employees. The latest Engineering Employers Federation\(^9\) report suggests that long-term sickness absence is measured as 4 weeks or more and that surgery and medical tests/investigations [27% of all causes] constitute the most important cause of long-term sickness absence. Their findings also indicate that this cause affects SMEs [28%] more than large organisations [19%].

In the past 24 months, 45% [175] of the SME business managers interviewed had experienced a work-related injury, 41% [159] had experienced persistent sickness absence and 35% [139] had experienced stress/mental ill health.

**Observation:** A significant proportion of SMEs were experiencing one or more staff-related health issues where OH services could provide a solution.

One in five SMEs indicated that they had not experienced any staff related health issues. The remaining 80% perceived they had experienced some problems.

\(^9\) Sickness absence and rehabilitation survey, 2007 – The EEF
These health-related absences had impacted on SMEs in a number of ways. 40% suggested that staff health-related absence had had a significant or noticeable financial impact on their organisation in terms of the costs incurred for staff cover. In addition, over 30% believed health-related absence had impacted on the organisation’s productivity, approximately 20% believed they had actually experienced loss of revenue and/or operating profit and over 40% believed staff morale had been adversely affected by health-related absence within their organisation.

**Observation:** SMEs would appear to understand and recognise the financial impact that staff-related health issues can have on their organisation. This suggests that the OH proposition needs to establish the cause and effect between the OH solution and improved bottom line performance.

30% of the SME sample did not know what constituted the key barriers to overcoming sickness and absence levels within their organisation and one in four did not believe they had a problem they needed to overcome. The remainder of the sample suggested they did not feel they had any control over sickness absence, were confused about legislation [employee rights, etc.], did not understand what services were available and did not know where to go for help. Interestingly, of the 45% who cited one or more barriers to managing sickness absence, just fewer than 10% suggested that they had experienced employee resistance to rehabilitation.

**Observation:**
- SME employers felt they had no control over employees’ sickness absence levels.
- SMEs did not understand the cause and effect between this and business performance.
- SMEs were confused about legislation.
- SMEs did not know where to go for help.
- SMEs did not know what services were available.

The results of the research also highlighted for NHS Plus the most important factors that SMEs considered when purchasing OH summarised below in Figure 5.
Figure 5. SME Access/Purchase Criteria

**Observation:** A successful OH proposition should provide a telephone helpline, a clearly-defined and benefit-driven range of services, and demonstrate clinical expertise and sector experience [business experience].

**Summary of results**

Key findings, observations and recommendations from the research are summarised below:

- The overall market for outsourced OH services in the UK is set to increase by 5% per annum between 2007 and 2011 from its current market value of £189m.
In 2006, the market size for SMEs employing 30-250 staff, across the five pilot sites, was 15,897 of which 17.6% was currently serviced by providers of OH. This represents a key opportunity where more than 50% of the potential current market is completely un-serviced.

The NHS, as a brand, represents a strength in both the SME community and other SME business support organisations.

The market proposition for OH must be underpinned by a new identity and product terminology. Providers of OH services to SMEs must use the language of business, articulate resultant business benefits and align the OH proposition to core business issues such as finance, HR, sales and legislation.

The current OH proposition is confusing to a typical SME and is not clearly positioned within the health and safety market. A typical SME does not recognise OH as a solution to sickness absence issues even though a significant proportion of SMEs are experiencing one or more staff related health issues.

SMEs recognise the financial impact derived from staff health issues but do not understand the cause and effect between the OH solution and improved business performance.

The OH proposition delivered by the NHS must educate the market prior to delivering a product-based proposition. This proposition must be taken to the market through a mixture of direct and indirect channels using direct marketing and allying with intermediaries that already have established relationships with the target market.

A coordinated, tiered approach, encompassing the Regional Development Agencies, national portals and regional and local operators is fundamental to the success of the development of OH services through indirect channels.

The report identified key opportunities for collaboration with Strategic partners at both a regional [service] and national [policy] level.
There is a requirement to establish a brand that can function for all OH centres with the NHS brand operating as the umbrella brand with leverage from regional brands where appropriate.

Implementation of the OH proposition must be driven by NHS Plus at a national level where a services framework is introduced and used by all regional providers of OH services. It is essential that the NHS OH proposition achieves some standardisation through a national portfolio of services and quality and consistency of delivery.

York NHS Plus: A Case Study

York NHS Plus took this research and aligned their proposition and service set to maximise opportunities from the smaller business market. These changes have included:

1) Restructuring of the existing team to create a Business Team, lead by a Business Development Manager, with appointed account managers for existing and new clients.

2) The formation of a telephone helpline for all existing clients.

3) Extending the range of services being offered to business to include physiotherapy, counselling and manual handling.

4) Establishing links with other business support organisations, including the local Chamber of Commerce, and local Health & Safety networks as an indirect channel to market and to help promote our service.

The results at York NHS Plus

York NHS Plus has delivered some significant results from adopting this approach, and has increased its SME client base from 17 in 1998 to 93 by 2009.

Its profile and reputation within the local community has been significantly raised and its sales across all organisational clients increased by 68% in 2008/09 compared to the previous year, and by
98% in 2009/2010 to-date. This reflects a doubling of market share within its target market, to 6.8% of all outsourced occupational health.

In the last year, the Occupational Health Service has increased the number of employees to whom it provides services by a further 14,000. The OHS has employed further staff to manage this growth and now employs a team of 48 staff, up from 10 in 1998.

The OHS has re-invested the profit from this external SME activity into improving the health and wellbeing of the local NHS staff. £100k has been invested in a multidisciplinary team approach aimed at improving attendance at work. This team has included a range of professionals from occupational health, counselling, clinical psychology, physiotherapy and human resources focused on reducing long-term absenteeism. The results of this project within its host NHS employer after the first 12 months have seen:

- A reduction in the quarterly absenteeism figure in real terms of 21%, down from 5.13% to 4.04%.
- A reduction in the number of long-term absent staff (4 weeks plus) from 99 to 57.
- A reduction in the number of long-term absent staff (3 months plus) from 52 to 28.
- The percentage of long-term absent staff referred to occupational health for advice and support increased to 92% from 68%.
- A reduction in the duration of absence prior to referral to occupational health from 15 weeks down to 7 weeks.
- An estimated £492k annualised cost saving through reduced absenteeism.

**Conclusion**

York NHS Plus have effectively utilised detailed market research to help them understand the challenges faced by smaller businesses and develop a range of services designed to meet the needs of the end customer. This has entailed restructuring the team and rethinking the service proposition, developing the service portfolio and engaging with a number of strategic partners to educate smaller enterprises as to the benefits of purchasing an occupational health solution to meet the health challenges presented by their workforce.
References
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3. The UK Occupational Health Market Development 2007 - MBD
5. Health Matters, 2006 – Federation of Small Business
6. UK Business Rounded data report - 2006
7. The UK Occupational Health Market Development 2007 - MBD
8. The UK Occupational Health Market Development 2007 - MBD
WS4.2-3 Abstract:

‘Supporting service companies’
by Ann Hedlund, Ph.D., Researcher & Bengt Pontén, Ph.D., Researcher, Theme Working Life, Högskolan Dalarna, Sweden

Theme Workinglife has together with companies and workplaces developed concrete methods and processes for more attractive work. We want to spread the methods to many small and medium sized companies. To support and educate “supporting service companies” (intermediaries), such as Occupational Health Services, organization consultants, etc., so they can commercialize the developed methods was seen as a good strategy.

“Supporting service companies” in the region of Dalarna were invited to 3 hour information seminars and ½ day courses for 6 of the methods. Altogether 34 persons participated in the information seminars and courses. A follow-up was made after 1½ year through 25 interviews with the participants.

The practical execution of the activities: The seminars gave a good overview and suitable methods could be identified. The courses were well arranged and the participants practically went through the different steps of the method. Much discussions and the access to information material was appreciated.

The design of the methods: The methods were seen as impressive, concrete and useful. It was good that the methods created motivation, engagement and participation. Also the structure of the methods and the measureable results were appreciated.

The practical use of the methods: More than half of the participants have used any method practically. Most of the others have adopted parts of the methods and many have marketed them to costumers.

Conclusions:
- The education of “supporting service companies” resulted in substantial use of methods for development of Attractive Work.
- The seminars and course days were carried out in a good pedagogic way.
- The structure and content of the methods worked well in commercial use. They could easily be combined with other methods.
- The “approach” of the methods and the ability to engage and motivate the employees and the concrete results were appreciated by the clients.
Supportive Service Companies

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Abstract
Conscious development of attractive work increases the possibilities to keep, motivate and develop current co-workers and to attract new competent personnel. Supportive Service Companies (SSC) such as Occupational Health Services, organization consultants, etc. can help the companies in their development. Theme Working Life at Högskolan Dalarna has together with companies developed concrete methods and processes for more attractive work. Altogether 34 persons from 13 SSC participated in four seminars and six method courses. A follow-up was made after 1½ year by 25 interviews with the participants. The methods were seen as impressive, concrete and useful. More than half of the participants had used some method with at least one client. The methods worked well in commercial use and could easily be combined with other methods. The “approach” of the methods, the ability to engage and motivate the employees and the concrete results were appreciated by the SSC and the clients.

Key words
Attractive Work, small enterprises, Supportive Service Companies, methods, processes

Introduction
Companies and work places must have competent and motivated co-workers in order to build efficient operations and get full pay-off on investments. Conscious development of attractive work at the work place increases the possibilities to keep, motivate and develop current co-workers and to attract new competent personnel. This supports long term sustainable operations. Supportive Service Companies (SSC) such as Occupational Health Services, organization consultants, etc can help the companies in their development. The SSC are hired by companies and work places to
support the development of individuals, work-groups, departments or the whole company. Different SSC work with different focus, approaches and methods.

Since the end of the 1990’s methods that support processes for Attractive Work have been developed by Theme Working Life, a research group at Högskolan Dalarna, in collaboration with the Swedish National Institute for Working Life. These concrete methods and processes have been developed in close collaboration with companies and workplaces. They also support a positive development by motivating and engaging the co-workers.

The aim of the project was to support the SSC by giving them knowledge about the use of the methods and their philosophy. By commercializing the developed methods the SSC may expand and improve their operation and adopt a consultative way of working.

**The methods**

The methods have different starting points but all stimulate the development of both work operations and attractive work. In all methods the experience, values and interest of each employee are used as a base for development.

All methods are based on Moveit qualities, i.e. qualities that have been identified as important for a method to create motivation and engagement. These qualities cover interactivity, change competence, work environment knowledge, freedom of action, systematic and ability of integration (Åteg, Andersson & Rosén, 2006).

All methods require motivated and engaged company leaders, a choice of starting point close to the interest of the employees and their work, as well as a competent external process leader. All methods include introductory meetings with leaders and staff, one or more work-shops engaging all personnel and one or more follow-ups. The contribution from the external process leader is at least 20-25 working hours.

*Attractive Work* – Initiates a process to develop more attractive work based on the experience and values of each employee. Each employee’s view on what is important in an attractive work and on the situation at the current work-place is measured with a questionnaire. The results for the work-group are prioritized and used in a work-shop during which an action plan for development is put
together. At consecutive meetings the action plan is followed-up. For more information about this method, see Hedlund, Andersson & Rosén (2009).

*Orderliness* – A process to develop new routines that helps build better orderliness which increases the efficiency. At the process start the work group decides what areas are important for their orderliness and develops routines for each area. The development and observance of the routines are measured at three follow-up meetings, which give a good account of improvements.

The method as carried out by Theme Working Life has been evaluated, showing positive results for the clients. The straightforward method, development of routines and the engagement of leaders and co-workers had increased the orderliness and gave time over for other work. (Andersson, Andersson, Klusell, Rosén, 2008.)

*SAM-Right and easy* – A process by which a systematic work environment work (SAM) is developed. All Swedish companies are required to have a functioning SAM, which can be developed in different ways. By this method the whole staff is engaged in four work-shops during a full year supervised by a process leader. A working group carries out assignments together with the staff between the work-shops, supported by the process leader.

The development and use of the method at woodworking companies has been evaluated, showing that the method both contained success factors that support a functioning SAM in small companies and improved the work attractiveness. (Hedlund & Pontén, 2006)

*VEKO-Light* – A process in which premises, fittings and equipment are adapted to support efficient operations and work situations for the employees. A work-shop with the whole staff or representatives identifies factors which promote or hamper the work at the work-place. With these as a base the group designs drafts of possible new lay-outs from different points of view (e.g. customer or co-worker).

*Visit* – A method in which you visit yourself, with the eyes of a customer, an employee, someone who is seeking a job, or someone else. A group of co-workers take a critical view of the whole work-place, outside and inside, documenting their findings with a camera. The photos are used as a base for discussions on how to improve the work and work-place.
Picture editing – A method which visualize proposed changes in the work environment. Photos of the work-place are manipulated in a computer to visualize possible improvements. The photos are used as a base for discussions and decisions.

Approach and methods

Method courses

SSC in the region of Dalarna were invited to information seminars and short courses for the six methods.

The seminars were planned together with representatives from companies and other actors. All SSC that could be identified in Dalarna were first invited to four seminars at different places. The seminars took 3 hours and gave a brief overview of the methods. At the end of the seminar there was a possibility to apply for the specific short courses for each method.

The six method courses took ½ to 1 day each. All courses used an interactive pedagogy and the participants learned about each method by practicing each step. The role as process leader was also discussed and there was plenty of time to exchange experiences. Documentations for each method were handed out.

Participation

Altogether 34 persons participated in the information seminars and courses. The participants represented 6 different OHS-services and 7 other SSC. The participation at the seminars and different courses were as follows (three persons went to more than one course):

- Only seminar – 7 persons
- Attractive Work – 10 persons
- Orderliness – 7 persons
- SAM-Right and easy – 5 persons
- VEKO Light – 3 persons
- Visit – 2 persons
- Picture editing – 2 persons

Follow-up

A follow-up was made after 1½ year. Interviews with 25 of the participants were made. The participants were contacted by telephone or e-mail and a time for a telephone interview was booked.
Each interview took between ½ and 1 hour. In the qualitative interviews a template with open questions was used, covering the areas: The seminar, The course day, Experiences of practical use of the methods and Future cooperation.

Results

The practical execution of the activities

The seminars
Two thirds of the participants had no prior contacts with Theme Working Life. The interviewees felt that the seminars gave a good overview of the methods, made it possible to identify suitable methods and stimulated an interest to attend the specific method courses. A lot of well structured information was given in a short time in a pleasant atmosphere.

The method courses
The interviewees thought the courses were well arranged. Practically working with the different steps of each method gave a good insight in questions that may arise during the processes. The discussions, exchange of experiences and the access to information material were appreciated. Many found it interesting to hear how people work in other professions, trades and geographical areas. It gives strength to learn about and use tested methods.

The design of the methods
The methods were seen as impressive, concrete and useful. The interviewees were especially positive to the fact that the methods work for all types of work places and have a promotive perspective. It was good that the methods created motivation, engagement and participation. The structure of the methods and the measureable results were also appreciated. There is a structure which makes it possible to make the methods work in reality. Instructions and manuals make it possible to carry out the methods on your own. The measurable results give confidence and the clients appreciate the verification of improvements.

The experience of the interviewees is that the top leaders of the companies need insights to see the benefits of investments in development of operations and attractive work. The processes are more likely to succeed with good support and enough resources.
The practical use of the methods

More than half of the participants had used some of the methods practically. Most of the others had adopted parts of the methods and many had marketed them to customers.

Attractive Work – Three of the seven interviewees had used the method at eight work places. The process had worked very well and the participants were very satisfied. Two of the work places were at the moment engaged in the method for the second time.

All interviewees had further contacts with interested clients and most of them had told colleagues and partners about the method.

Orderliness – Two of the five interviewees had used the method at several work places. They had combined the method with their own methods and adjusted it to the needs of their clients. The method had been used at for instance schools, municipalities and ambulance. The clients had been satisfied with the results, especially the making of an action plan.

Two of the other participants had started to market the method and had contacts with interested clients. The method did not fit into the present business of one of the interviewees. Several of the interviewees had spread the method to colleagues and other SSC.

SAM-Right and easy – One of the four interviewees had used the method at work places for three clients and also in combination with other activities. Three had been inspired by the method and see it as part of their future methods, but had not yet used it together with a client. One of these had used the method within her organization.

VEKO-Light – One of the three interviewees had made a prospectus of the method and had used it on a small group at a workplace. The two others thought the method was interesting, but had not yet used it directly. One of these had suggested the method at an office, but the company was a bit worried about the time it could take. One thought the method would work better at a larger company with an adapted design.

Visit – One interviewee almost always uses the philosophy of the Visit method and has integrated it into other process methods.
Picture editing – Picture editing had been used by two persons both as a process method and for other presentations for companies/clients.

Future cooperation
All interviewees see the need for exchange of experiences with other SSC. Some are already part of networks, one third were interested if some new network is started. Many would like to come to specific meetings, such as method work-shops, seminars on other subjects, exchange of experiences, etc. However, these activities must be adjusted to the situations and needs of the participants.

The interviewees thought that it is good that the methods have been developed, tested and evaluated at a University, it gives credibility. But, there is a need for even more evaluations and facts that show economic results and measurable improvements. The clients do not always believe in the promotive perspective, they often think strictly economically.

Many of the interviewees would like to have more support when working with the methods at their clients. The courses gave an overview of the methods, but in practical use other questions concerning the processes are seen. Some of the SSC needed more details around the method and some wanted more about leading processes.

Conclusion
- The education of Supportive Service Companies resulted in substantial use of methods for development of Attractive Work.
- The seminars and course days were carried out in a good pedagogic way.
- The structure and content of the methods worked well in commercial use. They could easily be combined with other methods.
- The “approach” of the methods and the ability to engage and motivate the employees and the concrete results were appreciated by the clients.
- Initially there is a need for practical support to the Supportive Service Companies as leaders of processes at the work-places.
References


WS4.2-4 Abstract:

‘Application of Participatory Action Oriented Approach to Small & Medium-sized Enterprises in a City, Korea’
by Kuck Hyeun Woo, M.D, Ph.D., Professor, Department of Occupational Medicine,
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Jung Hee Chung, Hygienist, Chungbuk Occupational Health Center, Korean Industrial Health Association, Cheongju, Korea
Myung Sook Lee, APN, Ph.D., Director, Headquarters of Korean Industrial Health Association, Seoul, Korea.

Aims: For the improvement of Working condition and occupational safety and health in small & medium-sized enterprises in a city, Korea, Participatory Action Oriented Training (PAOT) program was conducted.

Methods: Among 60 small or medium sized enterprises, in which occupational injuries was occurred in last two years, 29 factories joined our program. Since the beginning stage, this program was planned with Cheongju labor supervisors team. Before starting our program, we had a seminar with photo contests of good examples and let them know our objectives in 9 May, 2008. After that, self assessment of their occupational safety and health status was done by themselves in May. 8 items was adopted for the self assessment. As a next step, we conducted PAOT workshop, Korean application of WISE program in 12-3, June. This is the training method of brainstorming, which stimulates participants to seek their own solutions actively. 29 participants from 29 factories took part in this workshop which include action checklist exercise and 4 technical sessions; Material storage and handling, Work station design and machine safety, Physical environment and environmental protection, Welfare facilities and work organization. In the last implementation of improvement session, they drew up action plans for improvement of their own work places and had presentation by each factory. In addition, we followed up the implementation of the improvements they made themselves as a team with regional officers. Self assessment was conducted once more in November. We also held achievement workshop and awards with photo contests in 17 December, 2008.

Results: The participants worked out overall 122 real action plans. We had follow-up visits to each factory within 3 to 6 months after the workshops. We confirmed that 68 plans (55.7%) have been completed. In the self assessment before our intervention, mean score of 29 factories’ occupational safety and health status was 60.4, and 64.7 in 2nd self assessment.

Conclusions: It is assured that the PAOT program holds strong potentials as an intervention method to improve working condition and occupational safety and health in small- or medium-sized enterprises although it has not been fully assessed yet.
Paper

Application of Participatory Action Oriented Approach to Small & Medium-sized Enterprises in a City, Korea

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Jungsun Park, M.D., PhD., Director, Occupational Health Department, Korea Occupational Safety & Health Agency (KOSHA), Incheon, Korea, jsunpark@chol.com

Abstract
For the improvement of working conditions, occupational safety and health & higher productivity, PAOT program was conducted. Among 60 small or medium-sized enterprises, in which occupational injuries had occurred during last two years, 29 factories joined in our program in June, 2008. Through our PAOT program, they submitted 122 action plans and implemented 68 improvements (improvement rate: 55.7%). We also conducted technical support program in cooperation with OSH supervisor team in Chungju Labor office to improve workers’ safety and health. Through this program, occupational safety and health (OSH) score of 27 factories was 64.7 while 60.4 in 1st self assessments. This means our program contributed to improving management status of occupational safety and health.

Key words
Participatory Action Oriented Training (PAOT), small & medium-sized enterprises, occupational safety and health, work improvement, action checklist

Introduction
To promote the prevention of work-related musculoskeletal disorders (MSDs), Korea's Occupational Safety & Health Act was revised on 1 July 2003. The related KOSHA (Korea
Occupational Safety & Health Agency) code was also handed down in June 2003. In all factories in Korea, prevention of musculoskeletal disorders (MSD) became one of the most important issues. But there are major challenges to the factories' survival, such as financial pressure, productivity competition, etc. In addition, labor - management relationships is not very good. Most employers have not realized the severity of the MSD problem. They have only worried about loss of productivity and budgetary burdens caused by disability claims and ergonomic renovation. The trade union, for its part, seems to be interested only in disability claims. Or the severity of the problem may be recognized, but its solution is not known. So they usually depend on experts outside the company.

Many ergonomic experts were concerned about the above-mentioned obstacles and did studies. They concluded that changes in employers' and employees' attitudes concerning improvements in working conditions would mean increased productivity.

As an alternative in the OSH strategy for the prevention of MSDs, we adopted the following:

1. Active participation of employers and employees is most important for their work improvement and productivity.
2. The main cause of work-related MSDs is physical overload, which is due to workers' awkward work posture and/or repetitive motions.
3. Employees are aware of their ergonomic problems and have ideas for improvements.
4. We want to start preventing real problems, e.g. work-related MSDs.
5. We want to apply the "learning by doing" concept.
6. Let us introduce only good practices or examples to other factories.
7. The role of experts should be a facilitator.

We adopted the principle of the Participatory Action Oriented Training (PAOT) for the prevention of MSDs. This is the training method of brainstorming, which stimulates participants to seek their own solutions actively. We also adopted the following premise "The participants themselves already have knowledge about the issue (through their experiences, training or reference materials, etc), and solutions have already been found by many people whose conditions are similar."

We conducted the PAOT program four times, which was Korean version of WISE workshops for the improvement of working conditions, occupational safety and health & higher productivity. We also had technical support program in cooperation with 5 OSH supervisors team in Chungju Labor Office.
**Approach and methods**

PAOT program with technical support program in cooperation with 5 OSH supervisors team in Chungju Labor Office was conducted. The process of our PAOT program was as follows (Figure 1).

**Figure 1. Process of our PAOT program.**

In the beginning stage, a seminar with photo contest was held in May 9th, 2008. Among 60 small or medium sized enterprises, in which occupational injuries had occurred during last two years, 42 factories participated in our seminar.

As a next stage, we held PAOT workshop in June 12. Total number of participants was 29 from 29 factories.

After registration and opening ceremony, we introduced PAOT principle and had checklist exercise & special lecture regarding management of MSDs, prevention of cerebrovascular & cardiovascular diseases and role of PAOT Facilitators.

In the 2nd day, five PAOT facilitators had presentations about 5 technical sessions such as material storage & handling, work station design, etc. Then, 29 participants were divided into 3 groups and had group discussion about 3 good points and 3 points to be improved, found through Action checklist exercise, was done by the participants and had presentation by themselves. For fun and relaxing, we had some games and stretching.
In the last implementation of improvement session, all participants drew up their own action plans and had presentation. 26 participants out of 29 submitted their short and long term action plans one by one. After evaluating on our PAOT program, we had closing ceremony. We had follow-up visits after PAOT workshop for encouraging implementation of improvements and technical support program in cooperation with 5 OSH supervisors team in Chungju Labor Office for improving workers' safety and health. Four follow-up visit teams consist of 1 person from our group occupational health management personnel and 2 OSH supervisors. We planned to visit each factory every 2 Months as a team. But, 1 or 2 visits was done actually. On the other hands, our team members visited each factory for routine job and encouraged their implementation and technical support program.
For the technical support program, we applied Korean Ministry of Labor's scoring system to assess management status of occupational safety and health including 8 items. Before starting our program, the 1st self assessment on OSH scores was done by themselves and the 2nd evaluation was done by 4 follow-up visit teams. Achievement workshop & photo contest was held in Dec.17th, 2008 and awarded.

**Results**
Before starting our program, the 1st self assessment on OSH scores was done by themselves. Their total score was 1,957 and mean OSH score in each factory was 60.4. The 2nd evaluation was done by 4 Follow-up visit teams and they got 64.7 of mean OSH score. Compared to the 1st self evaluation, mean OSH score increased 4.3.
Table 1. Comparison with the 1st OSH scores* (self assessment) & the 2nd evaluation done by our follow-up visit teams.

<table>
<thead>
<tr>
<th>Contents</th>
<th>Score Distribution</th>
<th>No. of Factories</th>
<th>Perfect score</th>
<th>Evaluation Score</th>
<th>Improved score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1: Health management condition &amp; Support</td>
<td>15</td>
<td>27</td>
<td>405</td>
<td>246</td>
<td>269</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd F-up visit</td>
<td></td>
</tr>
<tr>
<td>Area 2: General Health Exam. &amp; Follow-up</td>
<td>15</td>
<td>27</td>
<td>405</td>
<td>257</td>
<td>279</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd F-up visit</td>
<td></td>
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<tr>
<td>Area 3: Special Health Exam. &amp; Follow-up</td>
<td>15</td>
<td>27</td>
<td>405</td>
<td>265</td>
<td>286</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd F-up visit</td>
<td></td>
</tr>
<tr>
<td>Area 4: Working Environment Measurement &amp; working condition control</td>
<td>15</td>
<td>27</td>
<td>405</td>
<td>239</td>
<td>247</td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td>2nd F-up visit</td>
<td>8</td>
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<tr>
<td>Area 5: Hazardous material &amp; Working Environment control</td>
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<td>27</td>
<td>405</td>
<td>251</td>
<td>267</td>
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<td></td>
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<td>2nd F-up visit</td>
<td>16</td>
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<td>Area 6: Workers’Health promotion</td>
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<tr>
<td>Area 7: Occupational Safety &amp; Health Education</td>
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<td>27</td>
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<td></td>
<td></td>
<td>2nd F-up visit</td>
<td>14</td>
</tr>
<tr>
<td>Area 8: Personal protective Devices / Emergency Care etc.</td>
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<td>27</td>
<td>405</td>
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<td>270</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>2nd F-up visit</td>
<td>21</td>
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<tr>
<td>Total</td>
<td>120</td>
<td>216</td>
<td>3,240</td>
<td>1,957</td>
<td>2,096</td>
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<tr>
<td>OSH score * (Mean)</td>
<td></td>
<td></td>
<td>100</td>
<td>60.4</td>
<td>64.7</td>
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<tr>
<td></td>
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<td>2nd F-up visit</td>
<td>4.3</td>
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</tbody>
</table>

*: Korean Ministry of Labor's scoring system to assess management status of occupational safety and health.

26 participants from 26 factories submitted their action plans. Among 122 action plans 68 improvements was done within 6 months. Over all implementation rate was 55.7%.

From now, I want to introduce good examples through follow-up visits. After joining in our program, they rearranged heavy materials, named Gravia roll, at the level between knee and chest by their own ideas to reduce workload on back, and widening spaces to work more easily. They made new platform by their own ideas for the prevention of MSDs, and they made bolt and nuts
container to move easily by use of old chair. They also made machine safety guard for the prevention of occupational injuries.

<table>
<thead>
<tr>
<th>Technical session: Material storage &amp; Handling</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Before Photo] ![After Photo]</td>
</tr>
<tr>
<td><strong>Improvement contents</strong></td>
</tr>
<tr>
<td>Rearrangement of heavy material (Gravia roll) at the level between knee and chest.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical Session : Work station Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Before Photo] ![After Photo]</td>
</tr>
<tr>
<td><strong>Improvement contents</strong></td>
</tr>
<tr>
<td>Widening spaces to work more easily</td>
</tr>
</tbody>
</table>
### Technical Session : Work station Design

#### Improvement contents
- **< Before >**
  - They made new platform by their own ideas for the prevention of Musculoskeletal Disorders
- **< After >**
  - They made bolt & nut container to move easily by use of old chair
They made machine safety guard for the prevention of occupational injuries.

We also got some good examples done by our technical support program. Before our program, they have no space for health counselling and interview. But, according to our suggestion, they designated new place for health counselling and interview (Case 1). According to our recommendation, they made individual chart of high risk group workers for the health counselling and regular follow-up check (Case 2). And they made new covers for the organic solvent containers and supplied personal protective devices (Case 3).
Achievement workshop & photo contest was held in Dec. 17th, 2008. There were 2 awards for achievement workshop from Head of Local Labor Office and Director of KIHA branch, and 3 photo contest awards.

**Conclusion**

In conclusion, it is assured that the PAOT program holds strong potentials as an intervention method to improve working condition & OSH in small or medium-sized enterprises although it has not been fully assessed yet. Especially, PAOT plus technical support program in cooperation with OSH supervisor team in Chungju labor office can make a synergic effect.

**References**


WS4.2-5 Abstract:

‘An Example of successful information campaign for SMEs - the Polish edition of the Healthier Workplace Initiative coordinated by the European Agency for Safety and Health at Work’
by Joanna Janecka, Wioletta Klimaszewska & Daniel Podgórski, Central Institute for Labour Protection, National Research Institute, Warsaw, Poland

The Healthier Workplace Initiative (HWI) was a successful European information campaign aimed at improvement of OSH in SMEs. The 2-years campaign (2006-2007) was coordinated by the European Agency for Safety and Health at Work (Bilbao) and was run on the national level by the Agency’s Focal Points in cooperation with PR agencies. The activities of the campaign covered 12 new EU Member States but also Croatia and Turkey.

The campaign was aimed in particular at: 1) increasing knowledge on OSH issues and legislation, 2) promoting positive attitude towards OSH issues, 3) providing employers and employees with easy access to quality information on how to make their workplace safer, healthier and more productive. The Healthier Workplace Initiative in Poland was carried under the patronage of the Ministry of Labour and Social Policy and the Ministry of Health.

The campaign involved various intermediaries supporting SMEs in the field of OSH. The main activities included 12 training seminars organised by the Focal Point in the largest Polish cities. The common programmes for all seminars covered the following topics: 1) Evaluation of working conditions, including information on OSH in SMEs, 2) Legal basis for risk assessment and OSH management; 3) Risk assessment methods, and 3) Information resources useful for risk assessment in SMEs. In some cases the training programmes were adapted to the specific needs of SMEs in a given region. In particular selected good practices and solutions were presented by OSH practitioners and managers from local enterprises.

The Healthier Workplace Initiative also included public media campaign: publishing articles in newspapers and magazines, panel discussion organised a major Polish daily economic newspaper, two radio programs on risk assessment and stress at work, and the Polish version of the European campaign website provided by the Polish Focal Point.

The main results of the campaign were the following: 1) high level of attendance - above 1200 representatives of SMEs took part in training seminars, 2) positive response from the participants (according to the survey above 80% participants were “very satisfied” with the content, presentations and information materials, possibility to meet experts and practitioners), 3) good quality informative materials and tools – particularly risk assessment checklists, 4) two additional training seminars organized as a proof of demand for good quality OSH information (the organizers were also asked to organize more seminars in others places but it was impossible due to the closed calendar of the campaign).
Paper

An Example of successful information campaign for SMEs - the Polish edition of the Healthier Workplace Initiative coordinated by the European Agency for Safety and Health at Work

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Abstract
The Healthier Workplace Initiative (HWI) was a successful European information campaign aimed at improvement of OSH in SMEs. A two-year campaign (2006-2007) was coordinated by the European Agency for Safety and Health at Work (Bilbao) and was run on the national level by the Agency's Focal Points in cooperation with PR agencies. The activities of the campaign covered 12 new EU Member States but also Croatia and Turkey.

The campaign was aimed in particular at: 1) increasing knowledge on OSH issues and legislation, 2) promoting positive attitude towards OSH issues, 3) providing employers and employees with easy access to quality information on how to make their workplace safer, healthier and more productive. The Healthier Workplace Initiative in Poland was carried under the patronage of the Ministry of Labour and Social Policy and the Ministry of Health.

The campaign involved various intermediaries supporting SMEs in the field of OSH. The main activities included 12 training seminars organised by the Focal Point in the largest Polish cities. The common programmes for all seminars covered the following topics: 1) Evaluation of working conditions, including information on OSH in SMEs, 2) Legal basis for risk assessment and OSH management; 3) Risk assessment methods, and 4) Information resources useful for risk assessment in SMEs. In some cases the training programmes were adapted to the specific needs of SMEs in a given region. In particular, selected good practices and solutions were presented by OSH practitioners and managers from local enterprises.

The Healthier Workplace Initiative also included public media campaign: publishing articles in newspapers and magazines, panel discussion organised by a major Polish daily economic
newspaper, two radio programmes on risk assessment and stress at work, and the Polish version of the European campaign website provided by the Polish Focal Point.

The main results of the campaign were the following: 1) high level of attendance - above 1200 representatives of SMEs took part in training seminars, 2) positive quality evaluation by the participants (according to the survey above 80% participants were “very satisfied” with the content, presentations and information materials as well as with a possibility to meet experts and practitioners), 3) good quality information materials and tools – particularly risk assessment checklists.

Key words: Information campaign for SMEs, OSH good practice materials, training seminars, public media involvement

Introduction

Small- and medium-sized enterprises in Poland potentially deserve - if only owing to their contribution to GDP creation - to be recognised as the driving force of the economy. Though an individual SME’s scope of operation and influence on the economic environment is usually limited, they play an important role in shaping the national economy, owing to their large number. In Poland the SME sector consists mainly of companies operating in the following industries: wholesale and retail trade, services as well as industrial production. The number of SMEs per 1000 inhabitants in individual regions in Poland varies quite distinctly. This is a result of differences in economic conditions (including infrastructure) in individual regions. The economic structure, the infrastructure, the absorption rates of the local markets, the quality and number of business support institutions, and also the human resources and intellectual capital available to the enterprises - all of them have an impact on this differentiation. Small enterprises (with up to 49 employees) represent approximately 99% of all enterprises registered in the REGON statistical system, while medium enterprises (50 - 249 employees) accounted for circa 1%.

The level of entrepreneurship in Poland, measured by the number of enterprises per 1000 inhabitants, does not significantly differ from other European countries. According to the data for the year 2005, out of 28 selected European countries Poland ranks 15th, with a value slightly lower than the EU average. The entrepreneurship level measured by means of this indicator is the highest in the Czech Republic, Portugal and Greece, and the lowest in Slovakia, Romania and Germany.
Approach and methods

In the years 2006-2007 on the initiative of the European Agency for Safety and Health at Work (Bilbao) an OSH-related European information campaign directed towards representatives of small and medium enterprises in new Member States and candidate countries, called the “Healthier Workplace Initiative”, was carried out. The aim of this project was to promote the knowledge of the key issues related to safety at work, and to build a positive image of OSH and the workplace safety culture in the public mind. At the national level, the campaign itself was executed by National Focal Points (FOPs), while the specifically designed information and promotional materials to be used in the campaign were developed by the European Agency and accepted by all individual countries. During the campaign the following actions were organised or launched: a series of seminars broadening the knowledge on safety and health at work, a website containing information for the campaign beneficiaries, and the distribution of information materials.

In Poland, as part of the first stage of the campaign in 2006, five seminars were organised, and information materials on the occupational risk assessment and the development of safe workplaces were widely distributed. Campaign activities in 2007 included, among others, organisation of seminars, distribution of information materials, and also PR activities, such as publication of articles in newspapers and journals, press conferences and radio interviews. Collaboration with the media was aimed at publicising the campaign and promoting knowledge of different aspects of risk assessment. The campaign was launched with a press conference underlying the significance of health and safety in the workplace for the condition and performance of enterprises. In co-operation with PRIMUM PR (Public Relation company), two radio broadcasts were organised featuring experts from the Central Institute for Labour Protection – National Research Institute (CIOP-PIB). They were held in May 2007 as a part of the Hour with an Expert series broadcast by a popular radio station “Radio dla Ciebie” (Radio for You). The first broadcast dealt with occupational risk assessment, while the subject of the second was the problem of stress in the workplace.

The “Healthier Workplace Initiative” campaign was also covered in the OSH-focused professional monthly “Bezpieczeństwo Pracy – Nauka i Praktyka” (Eng. Work Safety – Education and Practice), which published an extensive article on the campaign, as well as information on individual seminars.

The European Agency created a multilingual website for the purposes of the campaign. The content of the Polish version of the website was verified by the Polish FOP (established at CIOP-PIB) in terms of linguistic and factual correctness. A section dedicated to the campaign (Figure 1)
was created on the FOP website, through which also information on the seminars was distributed and enrolment applications accepted.

Figure 1. The Polish version of the HWI information campaign

The seminars organised within the campaign covered practical issues and their aim was to show SMEs that the creation of a healthy work environment has a positive impact on the economic efficiency and performance of a company. The participants received the information materials prepared by the European Agency (in particular: occupational risk assessment handbook, thematic brochures and leaflets, and the campaign poster) as well as the handbook Employer’s ABC, developed and printed by CIOP-PIB, and other information and promotional materials useful for SMEs (Figure 3). In addition, the seminars were accompanied by exhibitions of publications and posters on safety and health at work.
As the seminars were held in different regions of Poland, efforts were made to adapt the character of each of them to the specific situation of SMEs in the region concerned. For this reason, a part of the programme was always dedicated to a presentation of the so-called “good practice”, prepared by the enterprises themselves or by the local OSH experts. This was apparent in the programmes of individual seminars. The seminar organised in Krakow in co-operation with the State Mining Authority, which put forward the subject of safety at work in opencast mines and gravel pits, is a good example.

Results

High attendance - approximately 100 people per each seminar - as well as active participation in discussions, the number of questions asked and the backstage talks allow us to assume that there is still a demand for information on safety at work, even those of a basic nature. Meetings such as the above-mentioned seminars, the presence of specialists and inspectors from the National Labour Inspectorate (PIP), and access to additional information materials made it possible to address numerous problems faced by employers and specialists of the OSH service on a daily basis. Seminars and campaign materials generated a keen interest among many participants representing SMEs, state administration, and OSH specialists. This was reflected in the answers to
the post-seminar questionnaire, as approximately 80% of the participants were “very satisfied” with the meeting.

Owing to the great interest in the seminar subjects, an additional meeting of a similar character was organised in Rybnik in June 2007, in co-operation with the OSH Experts Network certified by CIOP-PIB. The main goal of the conference attended by more than 100 SME representatives was to promote the “Healthier Workplace Initiative” guidelines among representatives of the SMEs. The subject of stress and mobbing in the workplace was raised and the issue of occupational risk assessment was presented. The conference programme included presentations on, among others, promotion of safe behaviours in the workplace, as well as selected problems of preventive and inspection activities carried out by the Regional Labour Inspectorate in Katowice. A representative of the Regional Chamber of Crafts in Katowice discussed the Chamber’s policy regarding support and assistance for employers in creating safe workplaces, while the Guild for Various Crafts presented its policy of actions aimed at improvement of working conditions. At the conference SMEs employers also presented the so-called “good practices” implemented in their enterprises while representatives of the OSH Experts Network shared their experiences regarding co-operation with the SMEs in the field of OSH improvement.

Conclusions

Information on good practice in occupational safety and health is aimed at supporting SMEs in achieving compliance with legal regulations. In many cases OSH-related regulations are clear in terms of "what to do", but they do not specify "how to do it". Therefore the information strategy adopted in the Healthier Workplace Initiative was very useful since it was focused on dissemination of practical good practice materials rather than information on OSH regulations. The campaign used the most popular ways of transmitting information to the users: printed leaflets and brochures, meetings with experts, workshops and seminars and the dedicated website. It should be underlined that placing the seminars in various geographical regions and including important local OSH problems in their programmes was a significant success factor.

In order to achieve sustainability of the results, the information campaigns should be appropriately intensive, long and, consequently, implemented during the entire campaign duration. The campaigns are a very useful means in disseminating of OSH-related information but in order to make them effective, at least some of the activities should be repeated several times. Even after official termination of HVI, the organizers received a large number of requests for additional
materials and additional meetings. This shows to prove that when setting the timeframe for a campaign it is worth allotting a longer period, surpassing the time of a campaign itself, for dissemination of the good practice materials and maintenance and update of the website.
Presentations, session WS4.3

Chair: Daniel Podgórska (with Bo Bager).

Time: Thursday 22 October, 17.15-18.45
Location: Atrium hall
WS4.3-1 Abstract:

‘Self-rated general health and Occupational Health Service (OHS) for small-scale enterprisers in Sweden— a longitudinal questionnaire study’
by Kristina Gunnarsson, MSc, & Malin Josephson, Ass prof, Department of Occupational and Environmental Medicine, University Hospital, Uppsala, Sweden

Good sustainable health is essential for small-scale enterprisers for successful management of their companies. OHS report weak demands from the small-scale enterprises with regard to risk assessments and services for improving the work environment. In interview reports small-scale enterprisers point out social and professional networks as important for a sustainable and good health. The aim in this questionnaire study was to investigate the prevalence of good health among small-scale enterprisers, and the association between health and being attached to OHS or members in professional network.

The study group consisted of 251 small-scale enterprisers (70% men and 30% women) with 0-49 employees. They represented ten different trades. Data about self-rated health, working conditions, being attached to occupational health service and membership in professional networks were collected twice; year 2001 and 2006. Self-rated general health was evaluated by one question, “In general, how would you describe your health?”. The response alternatives “very good/good”, reported both 2001 and 2006, were classified as “sustainable good general health”.

At year 2006, 32% of enterprisers with employees and 3% of those without employees were attached to OHS. The most frequent services were health check-ups, medical care and ergonomic risk assessment. Of the enterprisers, 56% with employees and 40% without employees were members in professional network. Between year 2001 and 2006, about 15% of the small-scale enterprisers alter between to be attached or not to OHS and 25 % alter between to be members in professional network or not. Sustainable good general health was reported by 55% but we found no association between health and being attached to OHS or professional networks.

To be attached to OHS or professional network was unstable during the study period. It is important that the small-scale enterprisers find support from OHS and networks that promote a sustainable health. OHS can be facilitator for organizing networks and also offer services focused on the small-scale enterpriser own health and work conditions.
‘Occupational Health and the Usage of Occupational Health Services by Women Entrepreneurs in Finland’
by H Palmgren, MEd, Head of Development, P Jalonen, PhD, Head of Development, S Kaleva, MSc, Researcher, & K Tuomi, PhD, Senior Researcher emerita, Finnish Institute of Occupational Health, Helsinki, Finland

Introduction: The significance of women entrepreneurship and the limited knowledge about the health and work-ability of women entrepreneurs laid grounds to our research and development project conducted in collaboration with The Central Association of Women Entrepreneurs and the Ministry of Employment and Economy in Finland. The aim was to reveal the occupational health needs of women entrepreneurs and to develop Occupational Health Services (OHS) for them.

Methods: A questionnaire containing structured and open questions about work, health, work-ability, working conditions, and OHS was sent to women entrepreneurs from a stratified sample of 3266 firms run by women in Finland. The sample was produced by Statistics Finland. 1691 (52 %) returned the questionnaire; and 474 gave reasons for not answering to it (e.g. retired). 1212 (43 %) answered to the questions (72 % self-employed, 28 % small firms with one to 50 workers). The average age was 47, 4 years and the tenure 12, 3 years, respectively.

Results: Work stress was more common among women entrepreneurs than among employed women (18 % vs. 10 %). Self-assessed health aligned with that of employed women; work-ability was lower (7, 4 vs. 8, 3). 68 % felt that their physical work-ability was good or fairly good (83 % of the referents). Repetitive work, carrying, lifting, and inconvenient postures were common in women entrepreneurs’ work. OHS was utilized by 32 % of the respondents; the aim and the content of OHS was not clear to those not covered by it.

Conclusions: Women entrepreneurs were mostly not covered by OHS that could meet many of the health needs revealed in this study. OHS is voluntary and not sufficiently well-known to them. Consequently, women entrepreneurs need more information about OHS. The development and implementation of special OHS for women entrepreneurs is the next stage of our project.
Paper

**Occupational Health and the Usage of Occupational Health Services by Women Entrepreneurs in Finland**

Helena Palmgren, MEd, Head of Development, Finnish Institute of Occupational Health, Helsinki, Finland, hei
Simo Kaleva, MSc, Researcher, Finnish Institute of Occupational Health, Helsinki, Finland,
Päivi Jalonen, PhD (Psychology), Head of Development, Finnish Institute of Occupational Health, Helsinki, Finland, paivi.jalonen@ttl.fi
Kaija Tuomi, PhD, Senior Researcher, Finnish Institute of Occupational Health, Finland, kaija.tuomi@saunalahti.fi

**Key words:**
Women entrepreneurs, occupational health services, occupational health, work-ability

**Introduction**

At present, entrepreneurship of women is highlighted as a potential source of new employment opportunities and innovations world wide. Health and well-being at work have been shown to be positively related to productive work and the success of enterprises (1-5). Still, in Finland there is only a limited number of studies and development attempts focusing on the health and well-being of women entrepreneurs and the performance of their enterprises. Particularly, we lack a comprehensive picture of occupational health and safety, working conditions, work-life balance and the coverage and usage of Occupational Health Services (OHS) and other support systems among women entrepreneurs working within different industries.

To fill this gap and to engage women entrepreneurs to work for their own well-being and the success of their enterprises in collaboration with actors promoting women entrepreneurship in Finland, a comprehensive research and development project was started in June 2008. The main partners of the project are the Finnish Institute of Occupational Health (FIOH), the Central Association of Women Entrepreneurs in Finland and the Ministry of Employment and the Economy in Finland.
The first part of the project consists of a study that aims to produce general, reliable knowledge about the occupational health of women entrepreneurs and the business practices of their enterprises. The results of the study will be utilized in the second part of the project within which services and service systems will be developed and implemented to meet the needs of women entrepreneurs and their enterprises. In this paper we concentrate on the preliminary results of the study on the Finnish women entrepreneurs’ well-being at work.

Subjects and methods
The research was carried out between 1.9.2008 and 31.3.2009. It utilized work-ability and best practice approaches and included 2 questionnaire studies (postal surveys) and 50 interviews of women entrepreneurs (6-8). The first questionnaire focused on the well-being at work of women entrepreneurs. Validated questions on work stress, engagement, burnout, work-ability and work-life balance were used in the questionnaire (6, 9-12).

The questionnaire included structured questions about psycho-social work stressors (36 items), motivation (16 items), health and work-ability (10 items), work-life balance (7 items), working conditions (20 items), gender equality, violence and sexual harassment at work (4 items), and about the usage of OHS and other health supporting services (5 items). The questionnaire also contained open questions that provided the respondents an opportunity to give further information about their motivation and goals concerning their work, experiences of gender related disadvantages and sexual harassment at work, usage of OHS and other support services, social networks and actors supporting their entrepreneurship.

The data was based on a stratified random sample of 3254 firms run by women entrepreneurs representing different business sectors and geographical areas in Finland. The sample was produced by Statistics Finland. 1691 (52 %) women entrepreneurs returned the questionnaire; and 474 gave reasons for not answering to it (e.g. retired). 1239 (44, 7 %) answered to the questions. Of the respondents, 72 % were self-employed, and 28 % were entrepreneurs with labour force. The average age was 47, 4 years and the tenure 12, 3 years, respectively. Real estate, renting, business services, personal services and other social services; health and social services, and whole sale and retail trade were the most common business sectors represented by the respondents (table 1).
Table 1. The representativeness of different business sectors in the study (percentage of the respondents)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total (n=1239)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real estate, renting, business services</td>
<td>19.31</td>
</tr>
<tr>
<td>Personal services and other social services</td>
<td>18.17</td>
</tr>
<tr>
<td>Health and social services</td>
<td>17.21</td>
</tr>
<tr>
<td>Whole sale and retail trade</td>
<td>16.80</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>7.43</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>4.44</td>
</tr>
<tr>
<td>Construction</td>
<td>3.88</td>
</tr>
<tr>
<td>Transport, storage and communication</td>
<td>2.91</td>
</tr>
<tr>
<td>Training</td>
<td>1.37</td>
</tr>
<tr>
<td>Agriculture, hunting and forestry</td>
<td>8.72</td>
</tr>
</tbody>
</table>

The second questionnaire was directed at the respondents of the first survey. It examined business practices and the performance of women's enterprises (8). To deepen the knowledge generated through the surveys, 50 women entrepreneurs who had answered to the questionnaires and volunteered to provide further information were interviewed in June 2009.

Preliminary results

Women entrepreneurs were highly motivated by their work; daily enthusiasm over the work was more common among them than among employed women (54 % vs. 43 %) (13). Women entrepreneurs working in health and social services felt that their work was meaningful and it had a clear purpose more often than those working in other sectors. The difference was statistically significant (p<0,05)1. (Table 2.)

1 In addition to work motivation there were also other statistically significant differences between different business sectors that are not reported here. Differences were also related to the age of the respondents and whether or not they were self-employed with no labour force. The sector and age specific results as well as the results of the whole research will be published in December 2009.
Table 2. Experiencing work as meaningful (percentage of the respondents in different sectors)

Women entrepreneurs felt more often stress than employed women (18 % vs. 10 %). Of all
entrepreneurs every tenth feel stress that they experience as harmful and disturbing. (13.)
Responsibility of financial matters (33, 5 %), uncertainty about the continuity of one's work
(17, 7 %) and too much paper work (17, 3%) were the most common sources of stress for the
respondents.

Women entrepreneurs' assessment of their health aligned with that of other employed women: 66 %
saw it as good or fairly good. Self-assessed work-ability was lower than in the referent group (7, 4
vs. 8, 3). Only 68 % of the respondents saw that their physical work-ability was good or fairly good
(vs. 83 % of the referents). Exposure to potential health hazards related to work and working
conditions was prevalent among women entrepreneurs (table 3).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Daily %</th>
<th>Weekly %</th>
<th>Less often %</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and social services</td>
<td>85</td>
<td>12</td>
<td>3</td>
<td>207</td>
</tr>
<tr>
<td>Agriculture, hunting and forestry</td>
<td>58</td>
<td>30</td>
<td>12</td>
<td>103</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>48</td>
<td>36</td>
<td>16</td>
<td>89</td>
</tr>
<tr>
<td>Whole sale and retail trade</td>
<td>55</td>
<td>32</td>
<td>13</td>
<td>199</td>
</tr>
<tr>
<td>Hotels and restaurants</td>
<td>47</td>
<td>33</td>
<td>20</td>
<td>55</td>
</tr>
<tr>
<td>Real estate, renting, business services</td>
<td>64</td>
<td>27</td>
<td>9</td>
<td>226</td>
</tr>
<tr>
<td>Personal services and other social services</td>
<td>64</td>
<td>28</td>
<td>8</td>
<td>219</td>
</tr>
<tr>
<td>Other sectors</td>
<td>64</td>
<td>27</td>
<td>9</td>
<td>95</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>26</td>
<td>10</td>
<td>1193</td>
</tr>
</tbody>
</table>
Table 3. Exposure to potentially hazardous work and working conditions (percentage of the respondents)

<table>
<thead>
<tr>
<th>Work and working conditions</th>
<th>Total (n=1239)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetitive work</td>
<td>59,7</td>
</tr>
<tr>
<td>Carrying, lifting</td>
<td>49,0</td>
</tr>
<tr>
<td>Inconvenient postures</td>
<td>45,8</td>
</tr>
<tr>
<td>Dust</td>
<td>37,4</td>
</tr>
<tr>
<td>Physically heavy work</td>
<td>29,2</td>
</tr>
<tr>
<td>Noise</td>
<td>21,5</td>
</tr>
</tbody>
</table>

Experiences of physical violence and the threat of physical violence as well as of sexual harassment were more common among women entrepreneurs than among employed women. Women entrepreneurs suffered from the work-life imbalance as often as other working women.

Occupational health services (OHS) were utilized by 32 % of the respondents. The aim and the content of OHS were not clear to those not covered by it. Of the respondents 14 % had used rehabilitation services, and 3 % replacement services. These services were not well-known to women entrepreneurs participating in the study.

Two out of three respondents (68%) felt the need to develop their professional competencies. Half of them (55%) wanted to improve skills needed in running their businesses. Every fifth of the women entrepreneurs felt that acquiring professional and business competencies and gaining access to Occupational Health Services would improve their well-being at work.

**Discussion and conclusions**

The preliminary results of the study on women entrepreneurs' well-being at work shed light to the factors that promote their occupational health and well-being. In addition, it unfolded a variety of work stressors that may threaten their occupational health and safety. Women entrepreneurs are mostly not covered by OHS that could meet many of the health needs revealed in this study. OHS is voluntary and not sufficiently well-known to them. Consequently, women entrepreneurs need more information about OHS, and how they could benefit from the services provided by occupational
health professionals. Moreover, they need support in developing and strengthening skills needed in running their businesses.

To meet the needs of women entrepreneurs and to ensure the success of their enterprises requires joint efforts of different actors from the field of health, training and business development. Based on the results of the research, a comprehensive service development and implementation project will start in 2010 in collaboration with women entrepreneurs, the Central Association of Women Entrepreneurs in Finland, FIOH and the state officials and authorities including professionals to jointly promote women entrepreneurship in Finland.

References


WS4.3-3 Abstract:

‘Create a network of actors for the improvement of animal’s wellbeing and working conditions in a porcine breeding: a case study in France’
by Johann Petit & Bernard Dugué, Ergonomists, Département d’Ergonomie – IdC, Université de Bordeaux, France

With about 36 kg a year and per head, pork meat is the most consummate in France. The annual production is assured by a livestock of 15 million heads, divided into 46 500 breedings, of which more than 25 000 have less than 20 pigs. Therefore, more than an half of the farms are small farms composed of a farmer and one or several employees. In this context, it appears different difficulties for this kind of small structures that those existing in medium and big firms such as premises conception, work organization or prevention of occupational risks. From an ergonomic intervention, we shall be interested, in this paper, in the characteristics of functioning of these small structures of pigs breeding.

At first, we answered a request of a prevention organism of the farming sector concerning the improvement of animal’s wellbeing and working conditions. To answer it, we chose to intervene on 2 farms to understand their functioning in detail. Very quickly, we implicated different external organisms to understand stakes and to find means to transform the situation:
- Agricultural Social insurance organism
- Agriculture Chamber
- The Committee of Hygiene of Security and Working conditions
- The grouping of pig breeders
- The National Institute of Agronomical Research

This experience emphasizes the difficulties for these small farms to transform their premises and their working procedures or their point of view on animal’s wellbeing and prevention of occupational risks. Then, this work shows the importance to build and to support an external professional network: Internal organization and competences do not allow the treatment of these questions efficiently. In this frame, it proves to be essential to build a collective action. Finally, this study allows to underline the interest of ergonomic approach.
Paper

Creating a network of actors to improve animal well-being and working conditions in a pig breeding unit: a case study in France

Johann Petit
Bernard Dugué
Ergonomists, PhD, researchers,
Ergonomics department, Université de Bordeaux, IPB/ENSC, France

Abstract

With about 36 kg per year and per head, pork is the most consumed meat in France. Annual production is assured by a livestock of 15 million head, in 46,500 breeding units, of which more than 25,000 have fewer than 20 pigs. Therefore, more than half of farms are small firms consisting of a farmer and one or several employees. In this context, the difficulties experienced by this kind of small structure are different from those in medium and large firms such as design of premises, work organization or prevention of occupational hazards. In this paper we shall be interested in how these small pig breeding structures function, in terms of ergonomics.

We first accepted a request from a prevention organism in the farming sector concerning the improvement of animal well-being and working conditions. We visited 2 farms in order to understand in detail how they operated. We very quickly involved different external bodies to understand all the issues and to find a means of bringing about change:

- Agricultural Social insurance body (MSA)
- Chamber of Agriculture
- Committee of Hygiene of Security and Working conditions
- Pig breeders group
- National Institute of Agronomical Research (INRA)

This experience emphasizes the difficulties experienced by small farms in adapting their premises and their working procedures or changing their attitude to animal well-being and the prevention of
occupational risks. This study shows the importance of building up and supporting an external professional network: internal organization and capabilities are not sufficient to deal with these questions efficiently. In this context, it proves to be essential to instigate collective action. Finally, this study demonstrates the advantages to be gained from using an ergonomic approach.

Key words
Pig farms, risk assessment, animal well-being, prevention, ergonomics.

Introduction
In the context of European directives on animal protection, and sows in particular, new regulations are in place for their protection, for example:

- Gestating sows should be reared in groups (2003 to 2013);
- Sows must not be tied up;
- Sows must not be confined in crates after 4 weeks’ gestation;
- No mutilation (teeth and tails) unless there are rearing problems;
- Pigs must have access to manipulable material.

These points may alter the way the pig units operate and thus the work activity of the pig keepers and hence their working conditions may also change. It must be said that the profile of the farmers is very much one of a desire to perform well and to rise to a challenge and in this respect, reactions to the obligation to respect the animals’ “well-being” and to rearing gestating sows in groups was significant. First of all there was (and still is) a general negative reaction to obligation, and to the fact that bringing the animals’ “well-being” to the fore would possibly be to the possible detriment of human “well-being”, as a result of price fluctuations and the stigmatisation of this occupation by society. Subsequently, it took on a new focus of interest because of its novelty, and a new challenge for the farmers and their employees: to recover a Human/animal relationship that had been partly lost over the years as techniques have evolved with the aim being as much as possible to master the animal.

It was in this context that the MSA in Brittany (Mutualité Sociale Agricole) formulated a request to which we responded, concerning working conditions associated with implementing standards in animal well-being in pig farms. This request was made by the prevention department, following several observations by their members:

- Little work done in pig farms concerning occupational risks;
- Wish to develop services for pig farmers;
- Requests from the field, especially via the CPHSCT (Joint Committee on Occupational Health and Safety);
- Requests from agricultural colleges, from the ANPE (National Employment Agency) etc. on various aspects of working conditions, risks, safety, etc.;

Their two initial problem areas were:

- How to respond to the “animal well-being” question;
- How to revive commitment on the part of the pig farms and instigate a more global approach to overhauling working structures and conditions.

After first checking that there was a degree of interest in this request on the part of pig farmers themselves in the field and the CPHSCT, we decided to accept the MSA’s request by suggesting that an ergonomic procedure be put in place to look at the matter.

Housing for the sows is the first element in the pig production chain. On its operational success (the number of piglets born and weaned in the year) will depend the number of pigs sold in the year. This is therefore a crucial unit in the economic success of the business. For this reason, we focused our efforts on this activity in particular.

**Approach and methods**

As a general rule, we place considerable importance on building up networks of actors during the ergonomic analytical process. Indeed, this is an important part of the ergonomist’s work. In the case

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2 Region of North-West France.

3 This study was carried out for the most part by Christian Balaud, Ergonomist.
of the present study, the size and structure of the businesses was a major feature. In fact, in both the farms that we visited, there were only two farmers and two employees.

<table>
<thead>
<tr>
<th></th>
<th>Farm 1</th>
<th>Farm 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td>2 farmers + 2 employees</td>
<td>2 farmers + 2 employees</td>
</tr>
<tr>
<td><strong>Production</strong></td>
<td>70 ha Cereals/Maize Breeder/Fattening pigs</td>
<td>100 ha Cereals/Maize Breeder/Fattening pigs</td>
</tr>
<tr>
<td></td>
<td>250 sows</td>
<td>220 sows</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 shed of suckler Limousines (cows)</td>
</tr>
<tr>
<td><strong>Buildings</strong></td>
<td>3 sites</td>
<td>1 site</td>
</tr>
<tr>
<td><strong>Production method</strong></td>
<td>Slatted floors</td>
<td>Slatted floors</td>
</tr>
</tbody>
</table>

The two main actors involved in this project are the MSA, who initiated the requested, and the operators, the pig farmers who are struggling to manage their units so as to achieve the animals’ well-being and whose working conditions must be improved. This request was accompanied by an observation: that prevention as overseen by the MSA was not sufficiently present in the pig production units. Part of our task was therefore to create a bridge between the MSA and the farms. A major feature of the structural organisation of pig production in Brittany is the pre-eminence of groups of producers; it was therefore necessary to mobilise a group of pig producers, both to put us in contact with farmers who were potentially interested, but also to give us access to their technical knowledge and their thoughts about their work. Also, before observing a production unit, we wanted to carry an open observation in a reference pig unit to enable us to understand the general operational procedures. Then as well as a major document search, we created in parallel a small group of key people in this field, as well as the actors we initially planned to involve:

- A working pig Human;
- An adviser from the Chamber of Agriculture, member of the regional working group on working conditions in pig production;
- An ergonomist specialising in agriculture;
- A researcher from INRA.
Subsequently, we set up a traditional ergonomics procedure (Daniellou & Béguin, 2004), based on an understanding of the true nature of the work carried out, in order to bring about changes:

- Presentation of the procedure to the employers and employees concerned;
- Choice of working unit;
- Observation of working situations and interviews;
- Analyses and diagnosis;
- Submission of results to the actors concerned for approval;
- Construction of courses of action for solutions.

Results

General process

First, sows have some behavioural characteristics, confirmed by our observations in a production unit:

- Poor eyesight and visual sensitivity (especially as they move from a dark area to a light area);
- Difficulty in walking down slopes and refusal to move forward if pushed from behind;
- Curiosity and willingness to play;
- Strong reactions to brutal treatment and aggression from fellow pigs and men;
- Weak heart.

These characteristics obviously have a major impact on working conditions and are a source both of pleasure at work, and of considerable risks, and they determine the occupational process and the way this process is implemented. Genetics also influence behaviour. For example, the Naïma race, present in the two production units observed, is recognised as “lively and somewhat aggressive”. This characteristic leads to more fights in groups of gestating sows.

Overall, the relationship between pig men and sows is fairly complex. This relationship with a breeding animal is basically seen by the pig farmers as one of exchanges, which goes beyond the scope of a contract or of the law. The relationship between the animal and the pig keepers may give rise to an analysis based on giving, with this link seen as more important than the goods themselves (Porcher, 2001). Porcher’s studies are very explicit concerning this idea of animal well-being and in the context of work and its impact on Human, they reflect the reactions of breeders and keepers,
who were pleased to find that by having the sows in the “gestation units reared in groups”, they were able to enjoy once again a relationship with the animals that had been lost as techniques had developed.

From the point of view of operating methods, the cornerstone to organising production in almost all breeding units remains group rearing. This production system, which is currently found in all pig units, was invented by INRA during the 1970s. The principle is based on dividing the sows into batches for rearing and in particular weaning a batch of sows on a set day. This method is favoured for several reasons:

- Rational organisation of work;
- Better supervision of the two essential units: the gestation unit and the farrowing house;
- Optimal use of buildings;
- Washing and disinfecting made as simple as possible;
- Considerable commercial interest in order to produce slaughter pigs of constant quality, on a regular basis and from simultaneous births.

Based on the length of the sow’s cycle (with lactation), and the gap decided on between batches, the number of batches and the number of sows can be determined:

Farm 1:
- 5 groups, weaning 21 days, interval 4 weeks:
- 140-day cycle / 28-day interval = 5 groups
- 250 sows / 5 groups = 50 sows per group

Farm 2:
- 4 groups, weaning at 4 weeks, interval 5 weeks:
- 147-day cycle / 35-day interval = 4 groups
- 216 sows: 4 groups = 54 sows per group
The sows’ production cycle lasts about 140 days, from mating (or insemination) to gestation then farrowing. With each cycle, the animals change buildings and the gestation unit is where they spend most of their lives (about 80%). This phase is therefore central in the development of the animal’s well-being and becomes a major occupational focus: the well-being of gestating sows.

**Diagnosis and recommendations**

**Monitoring**

The “well-being” gestation unit increases the need for monitoring activity considerably. Also, the need to “leave the group to themselves” contradicts the basic tenet of the pig breeder’s duties, which is to bring all the sows to the end of their gestation period with individual monitoring. The four main aspects of this monitoring activity are:

- Anticipation;
- Observation of the animals;
- Constant assessment of the situation;
• Decision and action.

Nevertheless, this gradual change in activity towards monitoring the group of sows challenges the long-established rules. The reactions of the operators concerned were as follows:
“It’s a simple system but technically difficult to manage.”
“You feel powerless when problems crop up.”
“You’re not really doing the job of pig farmer.”

Management in sub-groups
Putting the animals into smaller groups had other advantages. It was then easier to recycle old buildings, and groups could be divided up into sub-groups according to different feed requirements and characteristics:
• Gilts⁴,
• Thin, small sows, and the youngest sows,
• The most vicious.

From this point of view, the system certainly meets the requirements of the task, and in the units that were observed, out of groups of 50/54 sows, with sub-groups of 5 to 7, there could be 8 groups per batch, which allowed for fairly fine distinctions in distribution⁵. On the other hand, although this system provides for a better visibility of the animals, it makes it more difficult to perceive more delicate problems at individual level. Six sows, restricted to a pen, are still easier to monitor, but they are always necessarily closer together, and the demeanour of a sow in difficulty would not be very noticeable. Also, there is no guide to individual food consumption apart from observation and we noted difficulties in diagnosing the scale of the problem of socialisation in a sow: “Sometimes we only noticed that a sow wasn’t eating after three days, when she started to lose weight”.

This system leaves little room for a sow to escape when she is attacked by her pen-mates, whereas with large groups, smaller groups can be created within the large group, leaving much more room for escape, especially if the installation consists of partial internal partitions. From the point of view

⁴ Pubescent sow that has not yet farrowed.
⁵ Dividing a batch of animals into fairly similar sub-groups.
of working conditions, many workers find the passive observation of animals attacking each other fairly hard to bear (and sometimes unbearable):

- the psychological price may be high;
- the economic cost may be high if it means buildings are under-occupied, after maltreated animals are removed or if the consequences of maltreatment lead to abortions.

When small boxes are used, dividing the sows into suitably matched groups is the key to a successful unit. In doing this, the operator wants to ensure that each sow can be monitored individually, that fights are avoided and that optimal use is made of the buildings.

It would certainly be interesting to develop herd management techniques that were no longer based solely on forming and managing groups, but also on forming and managing smaller sub-groups:

- Think about matching for division into groups as soon as the gilts arrive;
- Consider different breeds, that are less aggressive or timid;
- Adjust the groups and the smaller batches so that there are a minimum of 3 or 4 batches per group;
- The aim of the “well-being” group is to socialise the sows. This suggests that it is preferable to keep the same animals in the same groups. To do this it is necessary to set up a system to retrieve, store and use information about the behaviour of each animal: dominant/submissive, aggressive/fearful, etc.

Information management

In the two cases observed, production was a continuous process as the breeding activity never stopped and the average size of the units was between 170 and 200 sows, with a fairly rapid turnover. Even when there are several employees, the pig keepers we spoke to all said that they knew every animal, which means that information management remained a major part of the pig keepers’ duties. Being well informed means being confident in decision-making. Our analyses show that three tools are often used:

- Chalking on panels fixed to the walls or on small portable wooden blocks;
- Computer;
- Sheets for each individual animal and each group, from a computer printout.
Using a combination of all these information systems would seem to be an efficient way of operating and ensures a degree of security in decision-making. In the context of “well-being” gestation units, it is also recommended that data on the individual social behaviour of each sow should be collected and processed.

Moving animals
When animals are being moved these are times when the composure of the pig keepers can be sorely tested and when they can be in danger. An understanding of the sows’ behaviour is essential in order to adapt their route bearing in mind the following:

- Sows have poor eyesight and are sensitive to glare;
- They find it difficult to move from a dark area to a bright area (easier for them to go from light to dark);
- They prefer to move along the walls;
- They do not like it when there is a break in the colour of the walls or in floor coverings;
- They demonstrate group behaviour, but they can easily dissociate themselves from their group;
- If a sow is pushed from behind, she will remain fixed to the spot or will back up;
- If a sow panics, she may charge straight ahead;
- A sow can weigh 300kg so a confrontation always carries risks.

It should also be noted that when the keeper is stressed, his field of attention becomes focussed, may be reduced, and can put him in a situation where he does not perceive an imminent danger (unevenness in the ground, an obstacle at head height). Consequently, moving animals in a well-ordered fashion plays a major role in the animals’ well-being and affects the working conditions of the keepers.

It is recommended that some operational rules should be put into application, and that some improvements be made to the existing premises:

- Do not push the animals;
- Position yourself behind and to one side so that they can see you;
- Whenever possible, work in pairs;
- Remain calm at all times;
• Set up lighting systems that are flexible and which can create “pathways” of light;
• Avoid breaks in the walls or partitions;
• Have uniform floor covering.

Another point in this context, narrow corridors take up less space. This is probably their only advantage, though a not insignificant one. Narrow corridors are designed to prevent an animal from turning round. However, in practice there may be problems:
• A very small and very agile gilt;
• A fight between animals that provokes some exceptional behaviour;
• A door left open…

Although infrequent, such hazards do occur. In this respect, wider corridors would seem to be a good way of leading the animals from place to place. They will prevent the tension from mounting if a fight breaks out between animals. The keeper can let an animal turn round and will then easily be able to turn it back in the right direction. Wide corridors will also limit violent confrontations between Human and animal.

**Observing the sows**
Our analyses have shown that it is essential to spend time observing the sows. This would seem to be most effective during feeding times, since the rest of the time the sows are lying down. It is therefore necessary to ensure that feeding time is scheduled so as not to interfere with other important duties. For example, farrowing takes up all the keepers’ attention, and so they are not inclined to carry out observations at that time. In order to know what state the pregnant sows are in and take any appropriate decisions, they must be observed. Consequently, this aspect of the pig keeper’s work must be recognised and integrated into their work schedule.

**Manipulable material**
Current legislation makes it compulsory to have “manipulable material” available for the animals. This may be objects (balls, chains), material (straw), with which the animals can play, which they can chew on, manipulate, all of which represents natural behaviour for pigs. This clause in the legislation is seen by the pig producers only as a constraint, and it is very often neglected by pig keepers, especially as it is difficult to find suitable “manipulable material” that is robust enough to
withstand the animals’ enthusiasm. However, manipulable material could be an invaluable aid in limiting another activity that is highly appreciated by sows which is fighting, a source of problems that are sometimes difficult for the pig keeper to resolve. In the case of small groups, where there is little room to run away, and where there is no straw, the subject of manipulable material is certainly one that should not be ignored. It appears essential to look into the question of product design, to talk to suppliers, so that pig breeders can be offered manipulable material that is suitably adapted to real situations.

Creating a network
Although we were able to produce a diagnosis and formulate working courses of action based on our analyses, our intervention very quickly came up against a lack of means to bring about changes. Moreover, when our analysis and our recommendations were put forward for discussion it very soon became clear that further resources and skills would be needed to bring about effective transformations. When this type of problem arises in a larger enterprise, there are probably competent people within the enterprise itself who can set these transformations in motion and put them in place. In the case of small pig production units, however, it is necessary to look outside the unit to find the key actors. This is why we quickly realised that it was essential to create a network of people, all of whom were involved in these major questions regarding the activities of pig production units: animal well-being and working conditions.
The diagram above shows the network of actors that was created, for two reasons:

- A better understanding of the way pig production units work and any relevant political and institutional issues;
- To ensure that transformations could be put in place, as the farmers on their own had neither the knowledge nor the means to do this.

First of all, and what we hoped for as a priority, was to build up a network of actors which could continue to operate after the ergonomist had left. For this reason the number of actors chosen and the decision as to which actors to choose, and we did not approach them all in the same way, were important. The prevention department of the MSA, which made the original request, formed the hub of this network. The various branches shown in the diagram above are still carrying on with the work that was begun earlier. The researcher from INRA and the technician from the Chamber of Agriculture provided invaluable technical information. Their expertise gave this process credibility. The technician from the group of pig producers at first also had the role of information provider, but he became an active member and is still a key actor in putting plans into action and providing information about work carried out. Lastly, the CPHSCT (occupational health and safety) and the occupational health officer, who up until then had given much thought to the question of working conditions, found, through the setting up of the animal well-being system, that they were able to act to improve working conditions. Without the mobilisation of these different bodies, these different
actors, it would, in our opinion, have been very difficult to carry out concrete transformations to improve animal well-being and working conditions.

**Conclusion**

This ergonomic intervention into two small business structures enabled us to provide a certain number of concrete recommendations to improve working conditions and animal well-being. We were able to highlight some essential pointers towards future actions in these small businesses:

- There is considerable advantage to be had in dealing simultaneously with questions of animal well-being and working conditions;
- The financial capacity of these small structures makes it difficult for them to invest in matters related to animal well-being and virtually impossible in the case of ergonomic solutions;
- Their involvement in work and the risk culture developed by the pig breeders means they have little opportunity to stand back and assess any difficulties associated with their work.

**References**


WS5: 'Assessing and preventing chemical and other risks in small enterprises'

Organizers:
Ann-Beth Antonsson, IVL Swedish Environmental Research Institute, Sweden
David Walters, Cardiff University, United Kingdom

In EU as well as national legislation risk assessment and prevention is essential. Risk assessment has been developed by health and safety experts as a tool to identify and evaluate risks, in order to prioritize and decide what control measures are needed. Preventive strategies are also prioritised according to a hierarchy of control.

There are many tools for different fields. Several of these fields are complex, such as chemical or microbiological risks and difficult to assess, even for experts. There are indications that small enterprises are very poor at risk assessment and at implementing preventive strategies.

The questions to be discussed in this workshop are:

1) What methods are possible to use for small enterprises to undertake risk assessment and operationalise prevention and

2) What the quality in the outcome is when small enterprises use these methods.

There are many tools that can be used by small enterprises:

1) Do we know if they are used?
2) Have they been evaluated?
3) What characterise good tools, apart from them being easy to use and not require too much time?
4) Are there other methods arriving at the same result – for example, effective preventive measures for the most severe risks and for medium risks?
Presentations, session WS5.1:
Chairs: Ann-Beth Antonsson and David Walters

Time: Thursday 22 October, 15.15-16.45
Location: B-10
Abstract:

‘Strategies and tools to support small firms assess and manage risks of hazardous substances in Europe’

by David Walters, Professor of Work Environment, Cardiff University, School of Social Sciences, Wales, United Kingdom

Hazardous substances are a serious health concern. It is estimated that there are 74,000 work-related deaths annually that are linked to hazardous substances encountered in the workplace. This means that 10 times more people are estimated to die from exposure to dangerous substances than from workplace accidents. Controlling the risks of working with chemical substances is therefore widely recognized as one of the major elements in ensuring a healthy workplace. Not surprisingly, control strategies for chemicals used in the workplace feature prominently in both regulatory and voluntary approaches to improving the work environment. Modern approaches to control are based on risk assessment and management, in line with wider strategies to manage the work environment more systematically. But their impact on the vast majority of workplaces in which chemicals are used remains problematic. This is especially so in small enterprises across the whole range of economic sectors and work activity, in which there is demonstrably poor understanding among owner managers concerning their responsibilities for chemical risk management and weak application of approaches to risk management.

Strategies and tools to address this problem have been developed in many countries. This paper presents an overview of their features and of what is known concerning their impact in small firms in several Western European countries. It also considers the implications of its findings for recent EU approaches to regulating the risks of hazardous substances.
WS5.1-2 Abstract:

‘Utilising the characteristics of small enterprises to assist in managing hazardous substances in the workplace’

by Ian Laird PhD, Kirsten Olsen PhD, Leigh-Ann Harris BBS, Stephen Legg Prof, Centre for Ergonomics, Occupational Safety and Health, Department of Management, Massey University, Palmerston North, New Zealand
Melissa Perry, Assoc Prof., Harvard School of Public Health, Boston, USA.

The burden of disease and ill health due to chemical exposures in the workplace is extensive and excessive. Hazardous substance exposures, particularly in small enterprises, contribute substantially to this burden. It has been only relatively recently, that attempts have been made to work with small enterprises in reducing these exposures.

The research literature on OHS in small enterprises has extensive reference to barriers, challenges and problems associated with effectively implementing preventive OHS interventions. However, Larsson (2003) contends that there is no real proof that the size of an enterprise in itself is an important factor for OH & S activities, and Champoux and Brun (2003) report that most small business owners do not think that resources are a significant barrier to their improving health and safety.

There are certain characteristics of small business that potentially provide positive opportunities for the implementation of preventive interventions. Few interventions however, have been developed utilising these positive characteristics.

Building on the results of a recently completed survey of managing hazardous substance exposures in small businesses in New Zealand, this paper identifies these characteristics and outlines the opportunities to utilise these in working with small businesses to prevent and reduce exposures to hazardous substances.

An intervention framework has been developed that is modelled on recent successful intervention strategies and utilises the positive characteristics of small enterprises in intervention implementation. It focuses on key components of the small business including the working with the owner/manager and intermediaries, the work environment, organisational factors and worker/human factors. The framework extends the model developed by Hasle and Limborg (2006) and incorporates the Small Business Exposure Index (SBEI) developed by LaMontagne et al (2008) for intervention needs assessment and the evaluation of intervention effectiveness.

References:


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Key words
Small enterprises, chemical exposures, intervention effectiveness.

Utilising the characteristics of small enterprises to assist in managing hazardous substances in the workplace.

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Introduction

In New Zealand, as elsewhere in the world, the burden of disease and ill health due to chemical exposures in the workplace is extensive and excessive. Hazardous substance exposures, particularly in small enterprises, contribute substantially to this burden. It has been only relatively recently, that attempts have been made to work with small enterprises in reducing these exposures.

There is a growing field of research on the occupational health and safety issues concerning small enterprises (SE’s) internationally. However, the literature is fragmented and the focus of the research is diverse and disparate. Only until very recently, has the research been examined to identify effective approaches to SE’s and to suggest future research strategies (Mayhew, 2002; Champoux and Brun, 2003; Lamm and Walters, 2003; Hasle and Limborg, 2006). Even with this examination, conceptual frameworks for OHS and small business, particularly in relation to managing hazardous substances, are theoretically vague and empirically not well supported.

The range of hazards and exposures encountered in small business are reported to be extensive and excessive, although Lenz et al (2001), suggests that many hazards are similar across businesses and industries, regardless of size; yet others may be unique to small businesses and industries that are predominated by small employers.

Bearing these complex issues in mind, what then are the features of small business that make research and in particular provision of support and services to small enterprises problematic? Many studies have identified the characteristics of small business that highlight difficulties and challenges for owners/managers, enforcement agencies and researchers (Eakin et al, 2000; Okun et al, 2001; Lenz et al, 2001; Oldershaw, 2002; Champoux and Brun, 2003; Barbeau et al, 2004; Walters, 2006). However, few if any studies, have identified the positive features of the characteristics of
small business and the opportunities these have for the promotion of occupational health and safety practice and research (Larsson, 2003).

This paper examines the characteristics of small business and identifies not only the challenges and difficulties faced by small business owners/ managers and employees, but also some of the unique features of SE’s that provide positive opportunities for OHS intervention design, development and evaluation. The implications of these features for intervention research and in particular studies on the effectiveness of interventions to reduce hazardous chemical exposures in SE’s are discussed.

Characteristics of small business
Small enterprises are not homogeneous but there are a variety of characteristics that seem to be common to such entities. The literature supports the argument that the management structure in a business with over 20 employees becomes more formalised and the management of occupational safety and health, including chemical risk management, improves (Lamm, 2000; Lamm & Limborg, 2000; Gardner, 2000; Oldershaw, 2002; Lamm & Walters, 2003; Walters, 2006; Legg et al, 2008).

In addition, the concept of owner-management and the ability of small business owners to directly influence business decisions are acknowledged as the fundamental distinguishing characteristics of small business.

The management of OSH in small enterprises has been extensively reviewed (Mayhew, 1997a, 2002; Lamm, 2000; Lamm & Limborg, 2000; Gardner, 2000; Lentz, Sieber, Jones, Piacitelli, Catlett, 2001;; Okun, Lentz, Sieber, Jones, Piacitelli, Catlett, Schulte, & Stayner, 2001; Oldershaw, 2002; Champoux & Brun, 2003; Lamm & Walters, 2003; Larsson, 2003; Barbeau, 2004; Eakin, Hasle & Limborg, 2006; Walters, 2006; Legg et al, 2008). The consensus of opinion in these studies is that management in small businesses is more informal; the lines of communication are short, the communication is more often oral than written, the structure is simple and commercial pressures are very high and immediately felt. Moreover, it is impossible to separate OSH practices from other aspects of small business management such as financial management, selection and recruitment of staff, task training. Overall, small businesses’ health and safety management, particularly in relation to hazardous substances, is poor.

The owner-manager is the key person in the small enterprise and it is their values that determine the businesses approach to health and safety management (Vickers, 2003; Hasle & Limborg, 2006;
Antonsson, 2007). Many owners consider health and safety to be the employees’ responsibility (Vickers, Baldock, Smallbone, James & Ekanem, 2003; Hasle & Limborg, 2006) and often are not aware of legislative requirements (Vickers et al., 2003; Caple, 2006; Hasle & Limborg, 2006; Antonsson, 2007).

In general, small businesses owners often take a reactive and ad hoc approach to health and safety, as problems are usually only resolved when they become apparent. Hasle and Limborg (2006) suggest that this is due to a combination of factors. Firstly, the owner-manager often believes that responsibility for health and safety lies with employees and secondly, that accidents are a rare experience within the individual small business. Interviews with small business owners showed that most of them had a good awareness of the most immediate risks associated with their business (Vickers et al., 2003). Even in those small businesses which demonstrate a high level of health and safety awareness, assessment of risks is likely to be implicit, informal and sometimes reactive (Legg et al., 2009) as opposed to more systematic and explicit approach that is promoted by the Health and Safety Executive (Vickers et al., 2003).

**Barriers and challenges**

In the literature concerning occupational safety and health and small businesses, the most recurring theme is the identification of problems and challenges faced by employers, employees, enforcement agencies and researchers in relation to controls and interventions.

Eakin et al. (2000) report several key challenges in relation to OHS and small business: a highly competitive and constantly changing economic environment, the nature of their organizational entities in which multiple functions are carried out by the same person, owners’ limited view of what they can accomplish regarding health and safety given lack of money and expert staff, informal management structures and employment practices, and lower unionization rates, which decrease opportunities for workers to advocate for OSH.

Other characterizations of small businesses include; communications are oral and not written; there is a dependency on suppliers for information; literacy among workers is generally poor; a belief exists that the chemicals being worked with are not dangerous; there is poor knowledge of health effects; there is better perception of acute rather than long term health effects; controls are decided by custom and practice and not by risk assessment (Oldershaw, 2002).
Data on owners' behaviours toward health and safety in small businesses are limited and conflicting. In interviews, owners describe numerous barriers including limited resources, lack of in-house expertise, and production pressures (Eakin et al, 2000; Barbeau et al, 2004; Legg et al, 2009).

In summary, these barriers and challenges can be categorized into a range of factors as shown in Table 1.

**Table 1  Summary of barriers to OHS initiatives in small business.**

<table>
<thead>
<tr>
<th>Factor</th>
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<tr>
<td><strong>Economics</strong></td>
<td></td>
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<tr>
<td>Highly competitive environment</td>
<td>Eakin et al 2000, Mayhew, 2002</td>
</tr>
<tr>
<td>Changing economic environment</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Labour market restructuring</td>
<td>Quinlan 1998, Mayhew and Quinlan 1997</td>
</tr>
<tr>
<td>Lack of funds</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Burden of compliance</td>
<td>Bell 1996, Lamm 2002</td>
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<tr>
<td><strong>Staff</strong></td>
<td></td>
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<tr>
<td>Multiple functions</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Lack of expert staff</td>
<td>Eakin et al 2000, Okun et al 2001</td>
</tr>
<tr>
<td>Poor knowledge of health effects</td>
<td>Oldershaw 2002</td>
</tr>
<tr>
<td>Lack of understanding of regulations</td>
<td>Lamm 1999</td>
</tr>
<tr>
<td>“Management skills gap”, reliant on advisors</td>
<td>Lamm 2003</td>
</tr>
<tr>
<td><strong>Perceptions</strong></td>
<td></td>
</tr>
<tr>
<td>Limited view of what they can accomplish</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Believe chemicals not hazardous</td>
<td>Oldershaw 2002</td>
</tr>
<tr>
<td>Understand acute more than chronic effects</td>
<td>Oldershaw 2002</td>
</tr>
<tr>
<td><strong>Management Structure</strong></td>
<td></td>
</tr>
<tr>
<td>Informal structure</td>
<td>Eakin et al 2000, Lamm 2002</td>
</tr>
<tr>
<td>Employment practices</td>
<td>Eakin et al 2000, Lamm 2002</td>
</tr>
<tr>
<td><strong>Employment relations</strong></td>
<td></td>
</tr>
<tr>
<td>Low rates of unionization</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Decrease in OHS advocacy</td>
<td>Eakin et al 2000</td>
</tr>
<tr>
<td>Low rates of worker participation</td>
<td>Lamm 2003</td>
</tr>
<tr>
<td><strong>OHS management systems</strong></td>
<td></td>
</tr>
<tr>
<td>Lack of reporting &amp; surveillance systems Controls based on custom and practice not risk assessment</td>
<td></td>
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<td>---------------------------------------------------------------------------------------------------</td>
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<table>
<thead>
<tr>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral, not written Informal Dependency on suppliers for information Literacy generally poor</td>
</tr>
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<table>
<thead>
<tr>
<th>Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not trust enforcement agencies Feel alienated from the state Believe they have not been consulted by state Agencies have insufficient resources</td>
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</table>

<table>
<thead>
<tr>
<th>Standards</th>
</tr>
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<tbody>
<tr>
<td>Federal standards not applied Exemptions from record keeping</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insurance/ Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-employed, contractors, subcontractors often excluded</td>
</tr>
<tr>
<td>Mayhew 1997, Lamm 2002</td>
</tr>
</tbody>
</table>

In addition, Brosseau and Li (2005) suggest that small business owners' intentions toward improving workplace health and safety are primarily influenced by their attitudes. Owners' outcome, normative and control beliefs all contribute to their attitudes toward workplace health and safety. Subjective norm and perceived behavioural control by workers do not have any significant impact on small business owners' behavioural intentions toward workplace health. Interventions aimed at these underlying beliefs, particularly those shown to be most highly associated with high intentioned owners, may be successful in bringing about improvements in attitudes, intentions and behaviour. Raising owners' expectations about positive employee health and business productivity outcomes may lead to long-term improvements in their attitudes, intentions and behaviour toward workplace health and safety.

**Positive features and opportunities**
Larsson (2003) contends that there is no real proof that the size of an enterprise in itself is an important factor for OHS activities. He suggests that the core assumption of high risks, poor hazard management and high incidence of occupational trauma and disease in small business as opposed to
lower risks, better hazard management and thus low trauma and disease in large enterprises, seems hard to prove convincingly.

Champoux and Brun (2003) found that most small business owners do not think that resources are a significant barrier to their improving health and safety. In a study of 223 owners of small business (fewer than 50 employees) only 37% of respondents thought cost were an important barrier to health and safety improvements.

Lepoutre and Heene (2006) described factors specific to small business that relate to the adoption of socially responsible behaviour (including the health, safety and wellbeing of employees) by the owner/manager. These were classified into issue, personal, organizational and context characteristics. Issue characteristics refer to the situation or the matter of concern to small business socially responsible behaviour; personal characteristics relate to the values, competencies and actions of the owner-manager; organizational characteristics involve the tangible and intangible resources and structures of the firm; and context characteristics refer to the economic, social and institutional factors, which are external to the organization.

In addition to these factors, there are certain characteristics of small business that potentially provide positive opportunities for the implementation of preventive interventions (Laird and Perry, 2007). The combination of these factors and characteristics are presented in Table 2, and provides a framework from which to influence and support the small enterprise owner/manager introduce and implement OHS interventions.
Table 2. Factors and positive characteristics of small enterprises relating to OHS interventions

<table>
<thead>
<tr>
<th>Issue Characteristics</th>
<th>“Good employer” – cares about the health, safety and well-being of employees</th>
<th>“Green” values – respectful of natural resources and the environment</th>
<th>“Good citizen” in local community</th>
</tr>
</thead>
<tbody>
<tr>
<td>• OHS</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Employment/ Employee relations</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Environmental Management</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Social Responsibility</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Characteristics</th>
<th>Generally positive attitudes toward OHS</th>
<th>Paternal relationship with employees</th>
<th>Direct and immediate</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attitude</td>
<td>Good business person/ motivated/achieve</td>
<td>Influenced by attitudes/ outcomes</td>
<td>Implicit/ aware of risks generally/ intend to act</td>
</tr>
<tr>
<td>• Sense of personal responsibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Internal locus of control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cognitive and personality factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Intention to act</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Knowledge/commitment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sensitive to activities related to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>immediate internal stakeholders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Loyalty in the relationships with</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>customers/ employees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Openness, honesty and fairness in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>business activities</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Organisational Characteristics                 | Evidence of financial/ resource issue conflicting                              | Relatively easy to determine nature and extent of change to work environment |                                  |
|------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------|                                  |
| • Resources/ financial                         |                                                                              | Equipment important to SB owners                                          |                                  |
| • Work environment changes                     |                                                                              | Systems (IT) are in place in the SB and can be utilised                   |                                  |
| • Equipment                                    |                                                                              | Networking improves knowledge, attitudes and uptake of innovations       |                                  |
| • Systems                                      |                                                                              | Positive outcomes from organisational learning in SB.                    |                                  |
| • Networking                                   |                                                                              |                                                                      |                                  |
| • Organisational learning                      |                                                                              |                                                                      |                                  |

| Context Characteristics                         | Good reputation, market perception, quality, value for money important to ES  | Economic profile/ legislative framework of country important; level playing field |                                  |
|------------------------------------------------|--------------------------------------------------------------------------------| Support and incentives for compliance; positive industry culture; effective industry associations provide leadership and guidance |
| • External stakeholders (ES)                   |                                                                              |                                                                     |                                  |
| • Socio-economic context                       |                                                                              |                                                                     |                                  |
| • Small business environment                   |                                                                              |                                                                     |                                  |

Laird and Perry (2007), adapted from Lepoutre and Heene (2006)
The main forces or influences that impact on the small businesses and how they are managed relate to competition, regulatory pressure and the supply chain, from the suppliers through to the contractors and the customers.

The most successful intervention methods appear to be action-oriented, low cost approaches, combining health and safety with other management goals, and based on trust and dialogue. It is suggested that intervention research should look at the whole intervention process from the external actors/influencers (for example, government agencies and intermediaries) through to the dissemination process, the uptake of the small business and the effect on health and safety. Intervention models are described in the next section and guide the development of intervention research in small businesses. The models address several factors that are important to consider and analyse when developing interventions and influencing small business occupational safety and health, including chemical hazard management.

**Conceptual models for managing hazardous substances in SE’s**

A number of conceptual models have been developed that may help to enhance our understanding of health and safety interventions in small businesses and their effectiveness. These models include those developed by Lamm (1997), Antonsson, Birgersdotter and Bornberger-Dankvardt (2002); Vickers, Baldock, Smallbone, James and Ekanem (2003), LaMontagne et al (2005); the Health and Safety Executive (2006); Antonsson, Birgersdotter and Christensson (2006) Hasle and Limborg (2006); and Pratt (2007).

Hasle and Limborg, 2006 developed a useful model of intervention research in small businesses. They suggest that researchers focusing on the development of interventions for small business need to study the complete system, starting with the intermediary agency reaching out towards the smaller enterprises, then continue with methods to get in contact, and finally to study the effect in the small enterprises, which include both the process of getting the intervention accepted, the intervention itself, and the outcome.

Vickers et al. (2003) developed a model where they illustrate what they consider to be the main external influencers independently of each other and list different internal characteristics that
influence the health and safety outcome in the small business. They emphasise that the market the small businesses operate on has the greatest impact on occupational health and safety and OSH management in the small businesses.

In a later Swedish study, Antonsson et al. (2006) analysed why businesses, including small businesses, do not implement known measures to reduce chemical exposure. This study developed a ‘measure staircase’ (translation of the Swedish word “Åtgärdstrappen”) that describes the knowledge that is needed and the decisions the business needs to take to be able to implement solutions to OSH problems that are effective.

The ‘measure staircase’ model indicates that a problem can only be solved satisfactorily if the owner-manager and employees are aware of the problem (first step), accept it (second step), know the cause of the problem (third step), have knowledge of a solution (fourth step), accept the solution (fifth step), have knowledge of a supplier (sixth step) and can afford the solution (seventh step). The solution can therefore be implemented if they have the ability to do so and utilise it in a practical sense (eighth step) and finally evaluate the effect (the final step).

Pratt (2006) uses a risk control chain model, which is specific to the control of hazardous chemicals. Pratt’s model has five steps. When the business deals with a hazardous substance it has to firstly, recognise that the hazard exists; secondly, understand the (degree of) risk; thirdly, identify appropriate controls; fourthly, implement and monitor controls and which should fifthly, eliminate or minimise the risk.

Pratt (2006) identifies different factors in the small business environment which have an impact on the different steps in the control chain. He distinguishes between the factors in the small business environment that the business has control over and factors external to the small business, which are beyond the immediate control.

The models identified above address several factors that are important to consider and analyse when developing interventions and influencing small business occupational safety and health, including chemical hazard management. Vickers et al. (2003) along with others have found that the nature of the business defined by the industry it belongs to and the market it operates within is the main influencer on the OSH outcomes (Antonsson, 2007; Biggs, 2000; Gervais, 2006; Hasle & Limborg,
2006; Larsson, 2003; Pratt, 2006; Vickers et al., 2003; Walters, 2006). Many authors therefore recommend the development of industry specific interventions with a focus on the small businesses specific external intermediaries, internal culture, its needs and internal resources and processes.

The suppliers, producers and importers of hazardous chemicals could play a key role in reducing exposures to hazardous chemicals. They have the legal obligation to provide information on hazardous chemicals and control strategies. Unfortunately, material safety data sheets are criticised for being too complicated and lengthy and are therefore not user-friendly for small businesses.

Table 3 summarises the different characteristics of small businesses OSH management (including management of hazardous chemicals) and the owners approach to OSH management.

<table>
<thead>
<tr>
<th>The characteristic of small business management, the approach to OSH and chemical management</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical risk management is perceived as difficult.</td>
<td>Antonsson, 2007</td>
</tr>
<tr>
<td>Chemical risk management takes too much time.</td>
<td>Antonsson, 2007</td>
</tr>
<tr>
<td>Few resources so the manager must be a multi “expert”.</td>
<td>Antonsson, 2007; Walters, 2006; Biggs, 2000</td>
</tr>
<tr>
<td>Often no safety representative.</td>
<td>Antonsson, 2007; Walters, 2006</td>
</tr>
<tr>
<td>Few small businesses have a hazard management system. E.g. 50% in a Swedish study.</td>
<td>Antonsson et al., 2002</td>
</tr>
<tr>
<td>The quality of risk management is poor in small business.</td>
<td>Walters, 2006</td>
</tr>
<tr>
<td>Need for solutions as opposed to advice that highlights problems.</td>
<td>Antonsson, 2007; Antonsson et al., 2006; Pratt, 2006</td>
</tr>
<tr>
<td>Oral communication.</td>
<td>Biggs, 2000; Dryson, 1993</td>
</tr>
<tr>
<td>Low level reading ability.</td>
<td>Biggs, 2000</td>
</tr>
<tr>
<td>Reactive management style E.g. accidents improve safety.</td>
<td>Biggs, 2000; Hasle &amp; Limborg, 2006</td>
</tr>
<tr>
<td>Owner-manager plays a key role in the small business.</td>
<td>Biggs, 2000; Hasle &amp; Limborg, 2006; Walters, 2006</td>
</tr>
<tr>
<td>Responsibility for managing hazardous substances is not defined.</td>
<td>Biggs, 2000</td>
</tr>
<tr>
<td>Owners think that some one will tell them if they do not manage OSH or chemicals as the law requires.</td>
<td>Fairman &amp; Yapp, 2005</td>
</tr>
</tbody>
</table>
Furthermore, several studies report that small businesses have a tendency to assess their OSH, chemical risk management and performance more positively than researchers when they assess their knowledge through content questions or site visits (Simonsen et al., 2003; Vickers et al., 2003; Fairman & Yapp, 2005; Pratt, 2006). A recent survey of small businesses OSH practices in New Zealand (Laird et al., 2008; Olsen et al., 2009), found that the owner-managers assessment of their knowledge of OSH legislation was very different from the researchers’ assessment of their answers to content questions. Some managers with better knowledge rated their knowledge poorly whilst those who rated their OSH legislative knowledge more highly tended to be the least aware (Laird et al., 2008; Olsen et al., 2009).

Models of intervention
A number of studies have looked at interventions to improve health and safety outcomes in small businesses as well as their effectiveness. The studies include work by Walker & Tait (2004); Caple (2006); Lazovich, Murray, Brosseau, Parker, Milton and Dugan (2002); Antonsson and Alvarez (2005), Fairman and Yapp (2005) and LaMontagne et al (2003, 2004, 2005 and 2009).

The practice of occupational hygiene entails the anticipation, recognition, evaluation, and control of exposures to health hazards in the workplace (Mulhausen & Damiano, 1998). The further “upstream” away from exposure one aims for practicing occupational hygiene, the more likely one is to achieve the preferred goal of exposure prevention versus control.

Hazard prevention aims to avoid the creation of hazards, whereas hazard control aims to reduce or mitigate hazards once they have been created (Bennett, 1999). LaMontagne et al (2003, 2004 and 2005) devised a rating scheme in line with these principles. They applied a simplified “hierarchy of controls” to express a gradient of upstream (materials correspond with source of the hazard) versus midstream (process corresponds with path between source and worker) versus downstream (human interface corresponds with the level of the worker as the receiver of exposure) preventive efforts.

LaMontagne et al (2003) developed an exposure prevention (EP) rating scheme to evaluate the effectiveness of the Wellworks 2 intervention with respect to the prevention and control of hazardous substance exposures in manufacturing businesses in the US. Wellworks-2 was a 16 month randomized, controlled trial examining the effectiveness of an integrated health promotion
and occupational health protection intervention (Sorensen et al, 2002), with the worksite as the unit of assignment and intervention. The central hypothesis was that blue-collar workers would be more likely to make changes in health risk factors that are primarily under their control (smoking and nutrition) if risk factors that were primarily under the company’s control (occupational exposures to hazardous substances) were being addressed at the same time.

The EP rating scheme was designed (1) to systematically prioritize needs for intervention on hazardous substance exposures in manufacturing work sites, and (2) to evaluate intervention effectiveness. The rating scheme assesses the degree of upstream prevention efforts observable in a given process or similar exposure group. This provides a complement to—but not a replacement for—quantitative exposure assessment. The goal was to develop a method that could be applied with modest expense by OHS researchers and other groups engaged in workplace prevention and control efforts (e.g., independent OHS professionals, company or union OHS staff). The rating scheme was complemented by parallel evaluation with individual-level questionnaires and organizational-level assessment of OHS programs (LaMontagne et al, 2004).

A baseline assessment was used to tailor intervention activities to the needs of each study site. Corresponding to the needs assessment and evaluation strategy, the interventions targeted three levels: (1) the physical work environment (through specific recommendations for changes in materials, processes, and other exposure prevention and control measures), (2) the organization (through management-level intervention on general OHS management principles), and (3) the individual worker (through worker educational activities) (Sorensen et al, 2002). The Wellworks-2 OSH intervention was designed around a three level social ecological framework, with specific intervention activities at the level of the worker (for example, OSH training and education), the organisation (for example, management consultation on OSH), and the physical work environment (for example, tailored efforts to improve the prevention and control of hazardous substance exposures). Each level contributes to reduction in hazardous exposures and associated adverse health outcomes (Fig. 3).
LaMontagne et al (2005) combined these with an examination of the balance between exposure potential and exposure protection at each of these three levels. The resulting Potential and Protection matrix, expressed as a 2 x 3 table, allows both a horizontal (balance of Potential and Protection at each level) and a vertical (degree to which those efforts are focused upstream) assessment of exposure prevention. The EP rating method used has several strengths. First, it captures the degree of upstream prevention applied to hazardous substance exposures in general. This overcomes the feasibility challenges of evaluating intervention effectiveness for a variety of hazardous substances, particularly when the variety of substances differs across production processes, worksites, and intervention conditions. Further strengths include the linking of needs assessment, intervention recommendations, and effectiveness evaluation for each process assessed.

The Wellworks-2 intervention emphasized intervention at the source, and showed corresponding patterns of change in the intervention group as described above. In addition, the shift away from exposure limit-based regulation towards solutions based strategies provides an opportunity to refocus upstream.

Figure 3. Wellworks 2 Intervention model.
LaMontagne et al (2009) has developed a refinement of the exposure prevention (EP) rating method developed for the Wellworks-2 trial and has been adapted for use in a subsequent intervention trial in small to medium-sized manufacturing businesses: the Healthy Directions-Small Business project (LaMontagne et al, 2008)). This EP rating scheme (Small Business Exposure Index, SBEI) was complemented by parallel evaluation with individual-level questionnaires and organizational-level assessment of OHS programs, or management systems, in both Wellworks-2 and Healthy Directions-Small Business.

The basis of the SBEI scoring method on the hierarchy of controls supports its face validity. Furthermore, when used as pre- and post- intervention effectiveness measures, the baseline assessment of each area serves as its own reference or control, with the final evaluation metric being a measure of change. To the extent that a given area or process does not change fundamentally over the course of the intervention (e.g., gets replaced with an unrelated process or gets phased out), this strategy overcomes limitations inherent in comparing area ratings and scores cross-sectionally as well as longitudinally (as an intervention effectiveness measure).

The SBEI exposure prevention rating method is suitable for use in small enterprises, has good discriminatory power and reliability, offers an inexpensive method for intervention needs assessment and effectiveness evaluation, and complements quantitative exposure assessment with an upstream prevention focus.

A recent critical literature review of industrial hygiene intervention recommendations found a greater emphasis in practice on exposure control in the path between source and worker or at the worker level, rather than on the source [Roelofs et al., 2003].

**Development of Interventions to Reduce Hazardous Chemical Exposures in Small Businesses in New Zealand**

As part of a study of preventive interventions to reduce hazardous chemical exposures in small business in New Zealand (Laird et al, 2008), a modified Hasle and Limborg (2006) model for intervention research in small business was developed to identify the intermediaries and the relevant governmental laws and standards applicable to each small business industry sector involved in the study i.e. hairdressing, apple growers, printing and wood furniture manufacture (Fig.2.). Laird et al (2008) and Olsen et al (2009), report on the results of a baseline survey within these industry sectors, where this modified model was utilised.
Objectives of the proposed intervention

In addition, an intervention strategy and study proposal to evaluate this was developed as an outcome of this study (Laird et al, 2008). It is proposed that the intervention protocol for this study utilises the Wellworks 2 intervention model devised for the manufacturing industry (LaMontagne et al, 2005), the baseline survey tool developed by Laird et al (2008) and the SBEI (LaMontagne et al, 2009) and the factors and positive characteristics framework developed by Laird and Perry (2007) to influence, engage and support the small business owner/manager.

The interventions would be targeted at the three levels within the business; work environment, organisational systems and procedures, human interface. The interventions would consist of a:

- Technical/advisory component focussing on improvements to the work environment
- Safety systems component, developing or introducing safety systems with in the organisation to assist in the management of hazardous substances.
- Education and training component, focussing on OHS and chemical safety management.

The objectives of the intervention would be specific to the industry sector identified and the following evaluative hypotheses would be tested:

$H_1$ – The intervention would significantly improve scores/responses from the pre to post intervention questionnaire and the SBEI ratings
H_0 - No significant improvement in scores/ responses from the pre to the post intervention questionnaire and the SBEI ratings

In addition, the development and implementation of the intervention would utilise key positive characteristics of small enterprises identified earlier to influence, engage and support the small business owner/ manager and include:

- **Owner/ manager attitudes**
  - Concept of the “good employer”
  - Generally positive attitudes toward OHS
  - Paternal relationship with employees
  - Intention to act (attitudes and outcomes)
  - Promote OHS networking

- **Work environment**
  - Internal locus of control
  - Changes to the work environment (chemical storage, ventilation)
  - Low cost solutions

- **Organisational factors**
  - Introduction of a hazard management system
  - Chemical inventory

- **Human interface**
  - Organisational learning (implicit and explicit – Employee training and education)
  - Supervision - Personal protective equipment use

*Study design and population:* The proposed study replicates the Healthy Directions- Small Business methodology where the *Intervention* is a randomized controlled trial that assesses the effectiveness of an integrated hazardous chemicals management program. The worksite will be the unit of randomization and intervention with 20 worksites recruited and pair-matched on unionization status (i.e. whether or not they were unionized). One worksite in each pair will be randomly assigned to the intervention; the other to the minimal-intervention control strategy. Pre and post intervention
knowledge, attitudes, perceptions and behaviours would be assessed by the completion of a questionnaire.

In addition, changes to the summary scores of the SBEI (pre and post intervention) will be determined. The scoring of the SBEI is as follows. The first page of the SBEI checklist records general information about each process, such as numbers of workers, general air quality, housekeeping, obvious safety issues, odours, evidence of spills of potentially hazardous substances, and visible evidence of hazardous contaminants. Brief impressions of physical, safety, and ergonomic stressors are also recorded, though not incorporated into the hazardous substance exposure prevention rating process.

This is followed by more specific assessments of materials used, the process, and the human interface. Variable numbers of processes would be assessed at each site, yielding a comprehensive and systematic assessment of potential for, and protection from, hazardous substance exposures for each worksite.

The overall proposed intervention strategy, able to be developed for the specific industry sector identified, is illustrated in Appendix 1. This shows the relationship between:

- the baseline pre-intervention survey,
- the interaction and engagement of the intermediaries (industry associations, suppliers, external agencies),
- the pre-intervention SBEI evaluation,
- the implementation of the intervention at the three levels within the business (work environment, organisational systems and human interface)
- a formative/ process evaluation of the intervention
- post intervention survey
- post intervention SBEI evaluation

The intervention would involve collaboration between intermediaries, enforcement and prevention agencies and research team specialists in occupational hygiene and health promotion.
The following intervention outcome measures would be assessed.

1. Observable/ documented improvement in chemical storage, handling and use of controls.
2. OHS management systems introduced and used effectively
3. Chemical inventory developed and maintained.
4. Significant improvement in scores/ responses of knowledge and understanding of key items in the baseline survey and the SBEI ratings
5. Prevalence of protective equipment use

**Implications for Intervention Research**

Intervention research is the testing and evaluation of interventions, programs, and policies. To date, a variety of approaches to intervention have been developed to protect worker safety and health across a broad spectrum of industries. Although there have been measurable improvements in worker safety and health, only a few interventions, alone or in combination, have been systematically evaluated. Consequently, many interventions are undertaken based on faith and expert judgment without convincing evidence that these approaches are effective. However, there are excellent examples of interventions that have been evaluated and shown to be effective.

It has been said that one of the greatest problems in occupational safety and health is the lack of research involving the dissemination, adaptation and utilization of appropriate OHS information. In addition, the need to focus OHS expertise on small businesses is now established in many countries, but effective mechanisms to reach, assist and impact these companies continues to be an area of uncertainty (Okun et al 2001). To date, most OHS research and interventions have been primarily based on lessons learned form large companies. OHS researchers, preventive and enforcement agencies need a detailed understanding of the small business environment and the motivations, drivers and challenges faced by small business owners/managers in the design, development and implementation of preventive interventions.

Specific problems, limitations and needs of small businesses have not been thoroughly examined, and in particular how to engage, influence and support small enterprise owners/ managers manage hazardous chemical exposures.

The potential to utlise the characteristics of small business to implement preventive interventions has not been thoroughly examined. A catalogue of barriers and challenges to OHS promotion in
Small businesses have been identified and whilst important to acknowledge these, there appears an opportunity to utilise the positive characteristics of small business in designing, developing, implementing and evaluating future OHS interventions.

**Summary and Conclusions**

The research literature on OHS in small enterprises has extensive reference to barriers, challenges and problems associated with effectively implementing preventive OHS interventions. The owner-manager is the key person in the small enterprise and it is their values that determine the businesses approach to health and safety management. There are certain characteristics of small business that potentially provide positive opportunities for the implementation of preventive interventions. Few interventions however, have been developed utilising these positive characteristics.

Building on the results of a recently completed survey of managing hazardous substance exposures in small businesses in New Zealand, this paper identifies these characteristics and outlines the opportunities to utilise these in working with small businesses to prevent and reduce exposures to hazardous substances.

An intervention framework has been developed that is modelled on recent successful intervention strategies and utilises the positive characteristics of small enterprises in intervention implementation. It focuses on key components of the small business including the working with the owner/manager and intermediaries, the work environment, organisational factors and worker/human factors. The framework extends the model developed by Hasle and Limborg (2006) and incorporates the Small Business Exposure Index (SBEI) developed by LaMontagne et al (2009) for intervention needs assessment and the evaluation of intervention effectiveness.

**Acknowledgement**

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**References**


Appendix 1 Intervention protocol and evaluation strategy to be used for selected industry sectors and controls.
**Abstract:**

‘Risk assessment tools for small enterprises: evaluation of uptake and effect’

Background: Risk assessment is a core component in the management of the working environment. Risk assessment helps identify and prioritize risks and reduce risks through implementation of control measures.

Aim: To evaluate how tools for risk assessment are used by small enterprises and what the result is from using the tools.

Method: Randomly selected small enterprises in printing and electroplating industry were contacted and asked to participate in an evaluation of tools for chemical risk assessment developed to suit small enterprises. An initial interview was made with the enterprises accepting to participate in the testing, aiming at surveying how they use to assess chemical risks. The enterprises were provided with one out of six tools. Ten enterprises in each sector were asked to test each tool, adding up to 20 enterprises testing each tool. After three and six months the enterprise was contacted. If they had tested the tool, a new interview was made, exploring their opinion on the tool and their experiences from using it. Enterprises not having tested the tools were also interviewed about the reasons why they did not use the tool they were provided. In enterprises having used the tools, an expert risk assessment was made and compared to the risk assessment of the enterprise in order to evaluate the quality of the risk assessment tool and the enterprise’s use of it.

Result: More than 60 % of the enterprises accepted to test the tools, reflecting an interest and concern for chemical risks in their work environment. The follow-up interviews are currently conducted and will be finished during April 2009. The results show how risk assessment works in practice in small enterprises. The study has revealed several problems with different tools and some unexpected results. One example is that several enterprises have concluded that they are content with their old method for risk assessment, which was using safety data sheets, reflecting a profound lack of understanding of what risk assessment is about.

Results from the evaluation will be presented, showing how small enterprises perceive the different kinds of tools tested and what the outcomes in terms of quality are of the tested tools. The results will be discussed in relation to the enterprises and their previous experience of and knowledge about risk assessment.
Presentations, session WS5.2
Chairs: David Walters and Ann-Beth Antonsson

Time: Thursday 22 October, 17.15-18.45:
Location: B-10
on the management of chemicals and identify possible influencers as a baseline survey for future interventions to reduce exposure to hazardous chemicals.

A questionnaire was developed by the research team in co-operation with industry associations. The survey was conducted either face-to-face at the premises or by telephone with owner-managers. 36 hairdressers, 25 printers and 14 apple growers completed the questionnaire.

Half of the owner-managers mentioned chemicals as their main health and safety issue. Only a third had concerns about dealing with chemicals and considered the health effects before they started to use it. Many owner-managers did not know the health effect, and used insufficient protective measures particularly engineering controls. A high percentage considered using less hazardous alternatives and had actually tried it but stopped because it gave poorer results. Experience of a chemical related accident changed the way they managed chemicals. Where staff used the most hazardous chemical, they were informed (through the label) and trained in its safe use. Most owners observed and supervised employees to make sure they used the chemicals correctly. Owner-managers relied on information from the suppliers. Information about legislation mainly came from organisations with which they had personal contact e.g. auditors. Only 3% used national regulatory bodies.

There is a need for interventions to reduce chemical exposure. These should include auditing organisations and important parties in the supply chain.
Paper

Occupational health and safety management of chemicals in small businesses in three industries in New Zealand

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Abstract
Seventy-five owner-managers of small businesses (36 hairdressers, 25 printers and 14 apple growers) in New Zealand were interviewed about their attitude, knowledge and management of hazardous chemicals. The majority of the owners were not concerned about dealing with chemicals used in the industry but 75% of them considered substitution of the most hazardous chemicals. In general their knowledge about health and safety related to hazardous chemicals was poor but they were unaware of this. The apple growers stood out as having the best management of hazardous chemicals in practice. Their yearly audit developed with industry involvement and on the basis of market demand included management of hazardous chemicals. This seemed to be related to better management of hazardous chemicals. There
seemed to be a relation between poor practice amongst the hairdressers and that 64% of hairdressers had experienced or witnessed an accident or injury involving chemicals.

**Key words**
Small enterprises, hazardous chemicals, OHS knowledge and perception, owner-manager

**Introduction**

In 2004 it was estimated that 700 to 1,000 New Zealanders die from occupational diseases each year and that a substantial proportion of these deaths are related to exposure to hazardous chemicals (Driscoll et al., 2004; Pearce et al., 2005). There is growing evidence that people who work in small businesses are more likely to be exposed to hazardous situations and suffer more work-related injuries and illnesses in New Zealand (Lamm & Tipples, 2005; O'Connell, Firth, & McBride, 2001) and internationally (Hasle & Limborg, 2006; Walters, 2006). Some researchers indicate that the higher exposure to hazard is related to the fact that the industries dominated by small business are high risk industries (Antonsson, 2002; Lentz, 2001). Occupational Health and Safety (OHS) statistics in New Zealand are not analysed by business size so it is difficult to make conclusive statements about accidents and injuries in small businesses in New Zealand (Legg et al., 2009). However there is some evidence that small businesses have poor management of health and safety (Hasle & Limborg, 2006) and hazardous chemicals (Antonsson, 2007; Pratt, 2006; Sørensen, Hasle, & Bach, 2007) and a higher proportion of their employees are more often exposed to chemicals (Walters, 2006). This is the background for the present study which focuses on the management of hazardous chemicals in small businesses in New Zealand.

The owner, who is most commonly also the manager, is the key person in small businesses. It is their values that determine the business’ approach to OHS management (Antonsson, 2007; Biggs, 2000; Hasle & Limborg, 2006; Lamm, 2002; Vickers, 2003). Thus the owner-manager’s knowledge perception and attitude towards health and safety and hazardous chemicals are important factors to analyse and influence when wanting to improve OHS in general and more specifically the management of and exposures to hazardous chemicals. Many owner-managers do not consider hazardous chemicals or OHS as separate problems or
management areas. These areas are commonly integrated into the daily management of the business and are considered when problems or issues arise (Laird, Olsen, Harris, Legg, & Perry, 2009a).

There are many different ways of trying to influence small businesses’ management of OHS and hazardous chemicals including development of OHS systems and assessments, training and education, health promotion, engineering and industrial hygiene interventions and behavioural interventions (Laird et al., 2009a). Hasle and Limborg (2006) found that the most common preventative approaches were different types of checklists and implementation of OHS management systems and other programmes. They suggest that the most successful methods are action-oriented, low cost approaches that combine OHS with other management goals. When trying to influence management of OHS and management of hazardous chemicals it is important to use intermediaries that have a regular contact with the small business and can integrate the OHS intervention into other services or business matters of interest to the small business like - suppliers, customers and industry auditing organisations (Antonsson, 2007; P. Hasle, 2000; P. Hasle, and Wissing, P., 2000; Hasle & Limborg, 2006; Lamm, 1997; Pratt, 2006).

On this background the Accident Compensation Corporation (ACC) in New Zealand funded a research project in 2007-8 with the aim of assessing small business owner-managers’ attitudes and perceptions, knowledge and management of hazardous chemicals and to identify possible influencers as a baseline survey for future interventions to reduce exposure to hazardous chemicals. It was intended that the effect of any further interventions would originate from findings of this baseline study.

The research project focused on three industry sectors: hairdressers, apple growers and printers based on specific selection criteria. These three industries operate under very different market conditions. The hairdressers are in the service industry, serve the local market where their costumers are private people who can assess the quality of the product immediately. The hygiene (related to costumer health) of the hairdressing salon is controlled by local city councils who conduct an inspection of all salons every year. The printing industry serves mainly the local and national market, has both companies and private people as customers and production is based on technology. It has been in the national authorities’ focus during the last
decade and has an active industry organisation. The apple industry exports the main part of its production and is highly influenced by the international market resulting in full adoption of integrated or organic fruit production programmes (IFP) to suit the demands of the end customer in 2001 (ABARE & New Zealand Ministry of Agriculture and Forestry, 2006). The rapid implementation of IFP was largely attributable to the industry’s reliance on the legislated single export seller operating at the time and a high participation of growers in its adjustment to New Zealand conditions. The implementations of IFP led to reduction of the use of hazardous chemicals e.g. a 95% reduction in the use of organophosphate insecticides and implementation of an audit scheme (Wiltshire, 2003).

Approach and methods
A researcher administered questionnaire survey was conducted via telephone or by face to face interview with a total of 75 small business owner-managers: 36 hairdressers; 25 printers and 14 apple growers over the months of March to May 2008.

Selection of industry sectors
The criteria for selecting the industry sectors were: 1) industries with a high percentage of small businesses with less than 20 employees (measured as Employee Count (EC), 2) industries with high usages and exposure to hazardous chemicals, based on an analysis from Environmental Risk Management Authority (ERMA), Ministry for the Environment (MfE) and Department of Labour (DoL) (ERMA, MfE, & DoL, 2005), 3) a representative distribution of businesses by size in the central North Island of New Zealand compared with the national distribution (for ease of access).

Selection of businesses
Only businesses with 20 employees or less participated in the study. The businesses within the three industry sectors were selected using several methods. The hairdressers were selected via contacts from the New Zealand Association of Registered Hairdressers regional meeting, through snowballing and by using the yellow pages. The printers were selected through the Yellow Pages and the industry organisation’s; Print NZ’s database. The apple growers were selected via the ACC’s database. Eighty-one hairdressers were contacted in their salons and invited to participate whereafter an appointment for the interview was made. An information
letter was sent to 94 printers and 46 apple grower. Thereafter all of the printers and 40 apple growers were contacted by telephone to make an appointment or to directly conduct the survey.

**The questionnaire**

A generic questionnaire was developed using several studies as inspiration (Biggs, 2000; Champoux & Brun, 2003; Larsson, 1998; Perry & Layde, 2003; Pratt, 2006; Vickers, 2003). The questionnaire contained 5 sections: 1) demographic questions, 2) questions about management of health and safety in general, 3) management of chemicals in general, 4) management of the chemical used in the business that the interviewee (the owner) perceived the most hazardous to human health and 5) sources of information in general and in relation to OHS and hazardous chemicals. Some of the questions were then adjusted to the specific industry through discussions with the particular industry association. The sections on OHS management, management of chemicals and management of the perceived most hazardous chemicals contained questions about the owner-managers knowledge, perception, and practice. Their knowledge about the health effects and of the protective measures used was assessed in relation to the chemical they perceived the most hazardous to human health. The answers were then compared to the health effects and the protective measures mentioned on the Material Safety Data Sheet (MSDS) for that particular chemical. We assumed that the owner would know most about the chemicals he/she perceived the most hazardous and use the recommended protective measures. The owners’ perception of the business’ compliance with health and safety legislation and their knowledge about the health effects of the perceived most hazardous chemical were rated on a scale from one to 10. The questionnaire contained both open ended and closed questions.

**Conducting the survey**

The survey was first conducted with the hairdressers. Two researchers conducted the survey; one asked the questions the other wrote the answers down. The survey was conducted by one of the researchers in the apple industry and the other researcher in the printing industry where most of the interviews were carried out by telephone and the researcher both asked the questions and noted the answers.
**Analyses of the data**

Most of the answers to the open-ended questions were categorised after the interviews. For example, the answers to the question “Could you tell me what the main health and safety issues for your business are?” were categorised in the following categories: chemicals, slips, trips and falls, posture and movements, cuts, mechanical, others. The answer to the question about the chemical the owner-manager considered the most hazardous: “What procedure do you have to ensure that staff are using the product safely?” were categorised into the following categories: observation/supervision, training and education, staff meetings; rely on staff to act responsibly, assess staff knowledge of the product, others. All data was entered into an excel spread sheet and a comparative analysis using the percentages of owners that responded in a particular way was carried out for all three industries and for each industry.

**Results**

The results from the study are presented in tables 1 to 4. The tables show the percentage of the owner-managers that have given the answer shown in the left column except for the three first rows in table 1, which give the average of the answers and the last row in tables 2 and 4 which show the average scores for all industries and for each of the three industries.

**Demographics of respondents**

Table 1 shows the demographics of the respondents; the average size of the business, how long the owner-manager had been in the industry and had owned the business, the percentage of the owners that had industry training and if they were members of an industry organisation.
### Demographics

<table>
<thead>
<tr>
<th>Demographics</th>
<th>All industries</th>
<th>Hairdressers</th>
<th>Printers</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average numbers of permanent employees in the business</td>
<td>4.5 employee</td>
<td>5.8 employee</td>
<td>4.8 employee</td>
<td>0.6 employee</td>
</tr>
<tr>
<td>Average years the owner had been in the industry</td>
<td>21.1 years</td>
<td>20.5 years</td>
<td>20.7 years</td>
<td>23.6 years</td>
</tr>
<tr>
<td>Average years the owner had owned the business</td>
<td>11 years</td>
<td>9.3 years</td>
<td>9.3 years</td>
<td>18 years</td>
</tr>
<tr>
<td>Percentage and (number) of owners that had owned the business for 5 years or less</td>
<td>40% (30)</td>
<td>47% (17)</td>
<td>42% (11)</td>
<td>14% (2)</td>
</tr>
<tr>
<td>Percentage and (number) of owners with industry specific training and education</td>
<td>75% (56)</td>
<td>89% (32)</td>
<td>60% (15)</td>
<td>64% (9)</td>
</tr>
<tr>
<td>Percentage and (number) of owners that are members of an industry association</td>
<td>70% (53)</td>
<td>83% (30)</td>
<td>64% (13)</td>
<td>71% (10)</td>
</tr>
</tbody>
</table>

Table 1: Demographic of the respondents listed for all three industries and for each of the industries

On average the owners in all three industries had owned the business for a substantial number of years. However this hides the observation that a large proportion (40%) had only owned the business for five years or less. The apple growers deviate from the rest by in general having owned their business for a longer period. Most of the owners were quite experienced in their industry. Most of the businesses were very small businesses. Particularly the apple growers were small. Only two apple growers employed permanent staff but all employed casual staff in the picking season but they did not use chemicals. Most owners had an industry specific training and education and were member of an industry organisation.

**Attitude and knowledge about hazardous chemicals**

The results about the owners’ attitude, perception and knowledge about hazardous chemicals, the management of them and the legal requirements are presented in table 2.
The results in table 2 shows that only 40% of the owners felt that chemicals were one of their main OHS issues and less than 1/3 was actually concerned about dealing with them. The concerns that the owners had were concentrated around the health effects resulting from exposure and an uncertainty about the health effects. The owners that did not have concerns mentioned that “chemicals today are less hazardous than the chemicals they used ten years ago.”

<table>
<thead>
<tr>
<th>Percentage and (number) of owners attitude and perception related to hazardous chemicals</th>
<th>All industries</th>
<th>Hairdressers</th>
<th>Printers</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners mentioning Chemicals as the main OHS issue</td>
<td>40% (30)</td>
<td>33% (12)</td>
<td>52% (13)</td>
<td>38% (5)</td>
</tr>
<tr>
<td>owners concerned about dealing with hazardous chemicals</td>
<td>32% (24)</td>
<td>31% (11)</td>
<td>32% (8)</td>
<td>36% (5)</td>
</tr>
<tr>
<td>Owners that considered the health effect before taking the chemical they considered the most hazardous in use</td>
<td>33% (23)</td>
<td>17% (6)</td>
<td>48% (10)</td>
<td>54% (7)</td>
</tr>
<tr>
<td>owners aware of alternatives to the chemical they identified as the most hazardous</td>
<td>43% (36)</td>
<td>42% (14)</td>
<td>36% (8)</td>
<td>54% (7)</td>
</tr>
<tr>
<td>Owners that had considered substitution of the chemical they identified as the most hazardous</td>
<td>75% (39)</td>
<td>60% (15)</td>
<td>100% (21)</td>
<td>62% (8)</td>
</tr>
<tr>
<td>Owners that had used an alternative to the chemical they identified as the most hazardous</td>
<td>65% (26)</td>
<td>67% (12)</td>
<td>100% (8)</td>
<td>43% (6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage and (number) of owners’ knowledge about management of chemicals and legislation</th>
<th>All industries</th>
<th>Hairdressers</th>
<th>Printers</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners identifying them self as the responsible for staff safety.</td>
<td>70% (52)</td>
<td>56% (20)</td>
<td>72% (18)</td>
<td>100% (14)</td>
</tr>
<tr>
<td>Owners that thought they knew the main health and safety legislation.</td>
<td>80% (60)</td>
<td>86% (31)</td>
<td>68% (17)</td>
<td>86% (12)</td>
</tr>
<tr>
<td>Owners that could mention the main health and safety legislation or the authority responsible.</td>
<td>23% (17)</td>
<td>8% (3)</td>
<td>36% (9)</td>
<td>36% (5)</td>
</tr>
<tr>
<td>owners that knew what a material safety data sheet was</td>
<td>33% (25)</td>
<td>0% (0)</td>
<td>72% (18)</td>
<td>50% (7)</td>
</tr>
<tr>
<td>Owners that knew more than one health effects of the chemical they considered the most hazardous</td>
<td>31% (21)</td>
<td>43% (15)</td>
<td>30% (6)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Owners scoring on a scale from one to 10 of their knowledge about health and safety of the chemical they perceived as the most hazardous they used</td>
<td>Average score</td>
<td>6.8</td>
<td>7</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Table 2 Attitude, perception and knowledge related to hazardous chemicals and health and safety legislation.
ago”, that they received good information and training from the suppliers and furthermore the apple growers mentioned that they used personal protective equipment which should keep them safe.

Around half of the printers and apple growers actually considered the health affects before they took the chemical they considered the most hazardous in use. Few hairdressers did so. In comparison with the owners’ knowledge about the health effects of the same chemicals it is clear that more hairdressers knew about the health effects than the printers and apple growers. This is surprising at first glance. When we looked more deeply into the chemicals identified as the most hazardous we found that most hairdressers mentioned hydrogen peroxide and bleach powder. Both of these chemicals have acute health effects. This contrasts with the printers and apple growers who identified chemicals with long term health effects. This could be an explanation for this difference and seems to have little relation to whether they consider health effects before they use chemicals in practice.

More than half of all the owners had actually considered substitution of the chemical they perceived as the most hazardous. This was more than were aware of an alternative. A third had actually tried an alternative. The owners gave several reasons for still using the most hazardous chemical amongst which better quality and results were the most common. Interestingly, only 12% mentioned cost as a factor. Many of the hairdressers mentioned that the product they used was supplied by their preferred supplier. This indicates that they chose a preferred supplier and then stuck to the products supplied by them.

It is clear that the owners assessed their knowledge about these hazardous chemicals higher than it actually was. There was no relation between the owners ranking of his/her knowledge and the actual knowledge about the chemicals health effects and the protective measures (see table 4) that they were supposed to use. Only a high percentage of the apple growers used the correct protective measures when using the chemicals.

Only a third of all the owners knew what a MSDS was but that figure does not give a real picture. A quite high proportion of the printers knew what a MSDS was. Half of the apple growers knew but none of the hairdressers did.
A high percentage (70%) of owners identified themselves as having the main responsibility for staff health and safety. Fewer hairdressers identified themselves as responsible. Around a third of the hairdressers mentioned a shared responsibility for staff safety between staff and the owner.

Few owners (23%) could mention the main health and safety legislation or the authority responsible for the legislation. This is in line with another study of small business owners’ awareness of health and safety legislation and targeted programmes in New Zealand (Legg et al., 2009) Again fewest amongst the hairdressers (8%) could do so. In contrast, a high percentage of the owners said they were aware of the health and safety legislation. Most of the owners (particularly amongst the hairdressers and the apple growers) mentioned the organisation that inspected or audited their business. The hairdressers mentioned the city council that each year inspected the hairdressing salons to assess compliance with the Health (Hairdressers) Regulation Act. 1980. The apple growers mentioned Euro/Global GAP. Both are certification schemes that include a yearly audit. The printers mentioned that they had to comply with the legislation their industry organisation informed them about. This picture reflects the sources the owners used to keep themselves informed about legislation (see Table 3). A very small percentage used the authorities responsible for the legislation. The hairdressers used the city council and the industry organisation. Around half of the printers used the industry organisation. Half of the apple growers used the certifying body.

<table>
<thead>
<tr>
<th>Sources of information/knowledge</th>
<th>All industries</th>
<th>Hairdressers</th>
<th>Printers</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>City/Regional council</td>
<td>26% (19)</td>
<td>49% (17)</td>
<td>8% (2)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Industry Association</td>
<td>39% (29)</td>
<td>40% (14)</td>
<td>48% (12)</td>
<td>21% (3)</td>
</tr>
<tr>
<td>National regulatory body</td>
<td>3% (2)</td>
<td>0% (0)</td>
<td>8% (2)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>Certifying body</td>
<td>9% (7)</td>
<td>0% (0)</td>
<td>0% (0)</td>
<td>50% (7)</td>
</tr>
<tr>
<td>others</td>
<td>41% (30)</td>
<td>26% (9)</td>
<td>36% (9)</td>
<td>36% (5)</td>
</tr>
</tbody>
</table>

Table 3 sources the owners used to gain information about health and safety legislation.
**Management of hazardous chemicals**

Table 4 presents the results about the owners’ management and practice in relation to hazardous chemicals.

<table>
<thead>
<tr>
<th>Management of hazardous chemicals</th>
<th>All industries</th>
<th>Hairdresser</th>
<th>Printer</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage and (number) of owners that stated they had Material Safety Data Sheet (MSDS) for the hazardous chemicals used</td>
<td>70% (52)</td>
<td>74% (26)</td>
<td>60% (15)</td>
<td>79% (11)</td>
</tr>
<tr>
<td>Percentage and (number) of owners that stated they had an inventory of chemicals used</td>
<td>79% (58)</td>
<td>83% (29)</td>
<td>63% (15)</td>
<td>100% (14)</td>
</tr>
<tr>
<td>Percentage and (number) of owners that stated that the person responsible for chemical management was trained</td>
<td>45% (22)</td>
<td>-</td>
<td>36% (9)</td>
<td>93% (13)</td>
</tr>
<tr>
<td>Percentage and (numbers) of owners where staff used the most hazardous chemical</td>
<td>64% (46)</td>
<td>86% (31)</td>
<td>59% (13)</td>
<td>14% (2)</td>
</tr>
<tr>
<td>Percentage and (numbers) of owners that inform staff specifically about this hazardous product</td>
<td>87% (40)</td>
<td>90% (28)</td>
<td>85% (11)</td>
<td>50% (1)</td>
</tr>
<tr>
<td>Percentage and (numbers) of owners that stated that staff that used this hazardous chemical were trained in safe use</td>
<td>84% (38)</td>
<td>100% (30)</td>
<td>46% (6)</td>
<td>100% (2)</td>
</tr>
<tr>
<td>Percentage and (number) of owners where wrong or too little protective measures were used when using this hazardous chemical.</td>
<td>74% (48)</td>
<td>77% (27)</td>
<td>94% (16)</td>
<td>38% (5)</td>
</tr>
<tr>
<td>Percentage and (number) of owners that had experienced or witnessed an accident</td>
<td>41% (31)</td>
<td>64% (23)</td>
<td>17% (4)</td>
<td>21% (3)</td>
</tr>
<tr>
<td>Percentage and (numbers) of owners that changed the way they dealt with chemicals after experiencing or witnessing an accident/injury involving chemicals</td>
<td>80% (24)</td>
<td>73% (16)</td>
<td>100% (4)</td>
<td>100% (3)</td>
</tr>
</tbody>
</table>

**Owners scoring of their compliance with health and safety regulations**

| Average of owners scoring of their compliance with Health and Safety legislation (scale 1 – 10) | 8.4 | 8.9 | 7.6 | 8.8 |

Table 4 Management of hazardous chemicals.

There is a legal requirement in New Zealand as in other countries, for businesses to provide their employees with easy access to information about hazardous chemicals through access to MSDS and to hold an inventory of the hazardous chemicals (Occupational Safety and Health Service, 1997). From table 4 we can see that around three quarters of the owners stated that
they had MSDS for the hazardous chemicals used in their business. We did not check if this was actually correct for all industries but when visiting the hairdressing salons the hairdressers showed us a manufactures instruction when we explained what a MSDS was. No hairdressers were able to show us a MSDS and the suppliers such as L’Oreal Professional and Wella Professional do not provide salons with MSDS, but prefer to visit the salons to inform and train staff about the use of chemicals (Laird et al., 2009a). A high percentage of the owners also stated that they had an inventory of the hazardous chemicals used. We found that the hairdressers perceived their stock sheet to be an inventory. Their stock sheets did not contain any information about the hazards of the products they contained nor about the products and the amount they had in stock. All apple growers had an inventory which was inspected during the yearly audits. We did not have the chance to check the printers’ inventory.

Only two apple growers had staff that used chemicals and they were all trained in the safe use of the chemicals. All owners, except one, who were responsible for managing the chemicals were trained as approved handlers of agrichemicals through the industry organised training. Only around a third of the persons in charge of chemicals were trained. The hairdressers were not asked this question.

For most of the hairdressers’ staff used the most hazardous chemical. In the cases where they did not, it was because the staff were cleaners or other helpers that did not have a hairdressing education. All of the staff that used the chemicals were trained in the safe use mainly through supplier training. This training did not include the potential health effects but focused on quality and correct use. Staff in the printers used the most hazardous chemical in just more than 50 % of the cases. Most of these staff were informed about the chemicals. This included reading the MSDS and use of personal protective equipment. Less than half were trained. The approved code of practice for handling chemicals (Occupational Safety and Health Service, 1997) requires a much more comprehensive information and training than was observed in this study.

Insufficient training and information of the employees at the hairdressers and printers about health hazards is of concern when we can conclude that a very high percentage of the owners
told us that too little or wrong protective measures were used when using the most hazardous chemical. In all cases the hairdressers did not have sufficient ventilation or local exhaust ventilation. The same was an issue for the printers, where only two printers sought proper ventilation (by using the chemical out door) and one mentioned using a mask. The other printers mentioned that they had an open door or they turned the fan on. All except of two apple growers used masks. None of the apple growers used ventilation.

A high percentage (64%) of the hairdressers had experienced or witnessed an accident caused by chemicals used in hairdressing. The consequences were mainly short term and experienced by clients, but five out of six incidents that affected long-term health were experienced by hairdressers. Most of the hairdressers that had experienced an accident/injury acknowledged that it had influenced the way they dealt with chemicals. Not so many printers or apple growers had experienced an accident/injury involving chemicals. Those that had all changed the way they dealt with chemicals. On one side this shows that a high percentage of the owners react when they experience accidents/injuries. On the other hand, it could also suggest that the owners have reactive instead of proactive OHS management practices in relation to hazardous chemicals. This is supported by their having insufficient training and information about hazardous chemicals and use of too little or wrong protective measures.

*Information and advice about hazardous chemicals*

The results about where the owners seek information about hazardous chemicals and how to use them safely are presented in table 5.
Sources of information/ knowledge

<table>
<thead>
<tr>
<th>All industries</th>
<th>Hairdressers</th>
<th>Printers</th>
<th>Apple growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplier or manufacturer <em>(incl. Spray reps.)</em></td>
<td>91 % (68)</td>
<td>92 % (33)</td>
<td>84 % (21)</td>
</tr>
<tr>
<td>Industry education/training</td>
<td>8 % (6)</td>
<td>14 % (5)</td>
<td>0 % (0)</td>
</tr>
<tr>
<td>Industry association</td>
<td>3 % (2)</td>
<td>0 (0)</td>
<td>8 % (2)</td>
</tr>
<tr>
<td>Other</td>
<td>12 % (9)</td>
<td>6 % (2)</td>
<td>4 % (1)</td>
</tr>
</tbody>
</table>

The percentage of owner/managers that seek information/advice about chemicals and how to use safely form these sources

| Supplier/manufacturer | 57 % (41) | 67 % (24) | 45 % (10) | 50 % (7) |
| Industry education or training | 25 % (18) | 39 % (14) | 9 % (2) | 14 % (2) |
| Experience using Chemical | 19 % (14) | 22 % (8) | 18 % (4) | 14 % (2) |
| Industry peer | 8 % (6) | 0 % (0) | 23 % (5) | 7 % (1) |
| Labels/ instruction on product | 22 % (16) | 14 % (5) | 14 % (3) | 57 % (8) |
| MSDS | 6 % (4) | 0 % (0) | 9 % (2) | 14 % (2) |
| Other | 19 % (14) | 17 % (6) | 18 % (4) | 29 % (4) |

Table 5 Information sources about hazardous chemicals

From Table 5 we can see that most of the owners rely on the supplier when they seek information about the chemicals they use in their business. The hairdressers also rely on the training the apprentices receive during their education. When we asked about where they gained their knowledge about the chemical they perceived as the most hazardous, around 50% across industries mentioned the suppliers. A high proportion of the apple growers gained their knowledge from the labels or instruction that came with the product, whereas the hairdressers used training. The printers used industry peers to gain their knowledge. Not surprisingly only few used MSDS. More surprisingly, 19% said that they gained their knowledge about the chemical through the use of it.
When it comes to identifying the general business advisor that most influenced how work was carried out in the business, the owners identified different sources. Around a third of all owners mentioned the suppliers as the most influential. This is influenced by the fact that half of the hairdressers mentioned the supplier. Just below half of the apple growers mentioned their consultant as the most influential and 22% of the printers mentioned that networking had the greatest influence on the way work was carried out in the business. The industry association and accountants do not seem to be regarded as having the greatest influence on the way work was carried out in the businesses.

**Conclusion**

The majority of the owners were not concerned about dealing with the chemicals used in the industry because less hazardous chemicals had been developed and adopted for use in the industries. A high percentage of the owner managers were still concerned about the health effects of the chemicals used. A considerable proportion of the owners considered substitution of the most hazardous chemicals but kept using them mainly because they felt they achieved better results/quality. It is therefore concluded that there was some interest in reducing the use of hazardous chemicals amongst the owners in this study.

In contrast to what other studies have found the majority of owners in the present study knew that they had the main responsibility for staff health and safety. However in line with these studies only few knew the main health and safety legislation. Fewer hairdressers seemed to be aware of the legislation and their legal responsibility. None of the hairdressers knew what a
MSDS - the main source of information about hazardous chemicals, whereas the apple growers and the printers were more familiar with these sources. The owners’ knowledge about the health effects of, and the control measures for, the most hazardous chemicals was generally poor. In contrast, their self-perceived average score for their own knowledge about health and safety was 6.8 out of 10. This indicates that they were not aware that their knowledge was poor. It is concluded that their knowledge about health and safety related to hazardous chemicals was poor but they were unaware of this. Thus interventions to improve their knowledge would be appropriate.

The apple growers stood out as having the best management of hazardous chemicals in practice. A higher percentage of the apple growers had MSDS and an inventory of hazardous chemicals. Nearly all the persons responsible for hazardous chemicals and staff using the chemicals were trained in their safe use. Furthermore, a higher percentage of the apple growers used correct protective measures when using the hazardous chemicals. The hairdressers did not have the information sources required by the legislation and many did not use sufficient protective measures. All hairdresser staff were trained in the use of chemicals by the suppliers, but the supplier training was insufficient as regards health and safety. A lower proportion of the printers’ employees were trained in safe use of hazardous chemicals but a higher proportion was informed about them. The information supplied to the employees by the owner was the MSDS and information about personal protective equipment. It is hypothesised that there could be a relation between the poor practice amongst the hairdressers and the fact that more hairdressers had experienced or witnessed an accident or injury involving chemicals. Also, fewer of the hairdressers than printers and apple growers that experienced an accident changed the way they dealt with chemicals as a result of the experience.

Organisations that inspect or audit the business in areas related to OSH and management of chemicals seem to be identified as the organisation responsible for regulations and are the most used source for gaining information about legislation. Whether the audit or inspection actually will have an effect on management of hazardous chemicals and OHS seems to depend on the whether there is a focus on OHS and the management of chemicals in the audit or inspection. Here there is a contrast between the apple growers and the hairdressers. The
apple growers have a yearly audit that includes inspection of inventory of chemicals including MSDS and a physical inspection of storage of chemicals by the industry auditing body. In contrast, the hairdressers are inspected yearly by the city council. This inspection focuses on hygiene, particularly in relation to clients. It does not include management of hazardous chemicals. One of the possible explanations for the apple growers’ higher performance in management of hazardous chemicals could be the requirement for training in management of hazardous chemicals and the yearly audit including inspection of chemical storage and inventory of hazardous chemicals by the IFP. The fact that this scheme was developed through growers’ participation and implemented to gain market advantage could be the reason for the high percentage with a high standard for management of hazardous chemicals. Another influencer could be the suppliers of agrichemicals who determine that growers who buy agrichemicals are approved handlers - which means that they are trained in the safe use of the chemicals.

In seeking intermediaries that could be used to implement intervention for better practice and management of hazardous chemicals, the first suggestion that is relevant for all three industries is the suppliers. The owners use the suppliers to obtain information and advice on safe use of chemicals. The hairdressers, in particular, are very dependent on their supplier and many of them tend to build a very close relation ship with a particular supplier. Other industry-specific intermediaries for the hairdressers could be city council inspectors and the industry training organisation. The most obvious intermediary for the printers could be the industry association Print NZ. Further consideration of intervention processes developed from the present study are described in another paper by our research group in the proceedings of this conference (Laird, Olsen, Harris, Legg, & Perry, 2009b).

**Acknowledgement**

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References


Victorial WorkCover Authority.


WS5.2-2 Abstract:

‘Occupational health and safety prevention programmes in the Netherlands’
by Albert Hollander, MsC, PhD, Senior researcher, Fenny Michel, MsC, Senior researcher & Jan Michiel Meeuwsen, MA, Senior consultant and Manager international affairs, TNO Quality of Life, Hoofddorp, The Netherlands

In the Netherlands various occupational health and safety prevention programmes were performed. Two major ones are the VASt programme (2003 – 2007) [Versterking Arbeidsomstandighedenbeleid Stoffen; Dutch for Reinforcing the working conditions policy on hazardous substances], aimed at improvement of working conditions related to hazardous substances, and the RIE [Risk Inventory and Evaluation] SME programme (started in 2003), aimed at developing digital risk assessment instruments. Both were initiated by the Dutch Ministry of Social Affairs and focussed on implementing occupational health and safety regulations in SMEs.

VASt aimed at three levels. At national level a Harzardous Substance Covenant was signed between trade organisations and 5 Ministries. The aim was to improve the communication on hazardous substances at national level and connect VASt with initiatives at European level, for instance REACH. At sector level action plans were developed and implemented. An action plan consisted of tailor made actions on risk assessment, supply chain communication and knowledge infrastructure. Finally, at company level various instruments were developed, like Stoffenmanager, a digital risk assessment tool Version 4.0 of the Stoffenmanager was recently launched and was acknowledged by the Dutch Labour Inspectorate and ECHA [European Chemicals Agency]. There are more than 8,000 users and it has been tailored to the needs of 10 sectors as part of their action plan.

Small business owners were unhappy about the time-consuming obligation of performing a RIE. To make this process easier for entrepreneurs a generic digital RIE for SMEs was developed. Additionally, the digital RIE was tailored to the needs of more than 100 sectors in close collaboration with social partners and OSH services.

The important question is: have these programmes resulted in a significantly higher compliance of working conditions legal obligations amongst SMEs? The evaluation of VASt showed that the number of companies using a sector specific risk assessment tool for hazardous substances increased significantly from 7% till 15% of all interviewed companies and even till 37% for companies of which the sector organisation joined VASt. For the digital RIE on average 5,000 copies are downloaded each month. In some sectors the use of a digital RIE has led to a substantial drop in the administrative burden and an improvement in working conditions. However, despite the fact that instruments were developed, the compliance of legislation on occupational health and safety in very small businesses is still low. More work has to be done to convince these entrepreneurs of the added value of preventive health and safety measures.
Occupational health and safety prevention programmes in the Netherlands: the VASt programme

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Abstract
In the period 2003 – 2007 the Dutch government carried out the ‘VASt programme’. The main aim of the programme was to implement the existing regulations, especially in SMEs. The evaluation showed that 24 action plans were performed, which was much more than the 13 anticipated on. In addition the government supplied the companies with various instruments, like the Stoffenmanager, PIMEX and AWARE. These instruments became widely used during the programme. Most of the sectors (80%) were satisfied with the way they performed their action plan. The aim of the programme was only partially reached. Almost all instruments and measures described in the action plans were realised. However, this was done under great time pressure. Therefore, the implementation of the instruments and measures started only at the end of the programme and is still going on.

Key words
National programme, dangerous substances, Stoffenmanager, evaluation, sector organisations.

Introduction
In the period 2003 – 2007 the Dutch Ministry of Social Affairs and Employment carried out a 4-year programme to assist small and medium-sized enterprises (SMEs) in reinforcing the working conditions policy on hazardous substances, known as the ‘VASt programme’. A
special programme was necessary for various reasons. Firstly, each year in the Netherlands approximately 17,000 people contract an occupational disease and approximately 1,850 people die prematurely as a result of working with hazardous substances (Pal, 2003).

Secondly, 25% of Dutch workers were regularly exposed to hazardous substances, especially in SMEs (Labour Inspectorate, 2002; Ministry of Social Affairs and Employment, 2002). Thirdly, employers and employees in SMEs were mostly unaware of the risks and paid little attention to preventive measures at the source of exposure. Finally, if preventive measures were taken, only half of them were appropriate (Labour Inspectorate, 2002). The Ministry concluded that it was not the occupational health and safety regulations but the implementation of them, especially in SMEs, which needed attention.

The aim of the VASt programme was to encourage and support the self-motivation of employers and employees in order to achieve a structural improvement in conditions when hazardous substances are used. Industry sectors and product chains could obtain financial support for action plans aimed at the implementation of improvements through this programme. Furthermore, a set of projects was carried out to provide industry with effective tools to assess and control exposure to dangerous substances. In its entirety, the VASt programme covered three levels: national, chain/sector and company, and linked them together. The working conditions at the company level had to be structurally improved from the national level via the chain and sector approach. At national level the Hazardous Substance Covenant was initiated. The Confederation of the Dutch Industry and Employers, the Confederation of SMEs and the government signed the covenant. The aim was to improve the communication on risks of working with hazardous substances and to stimulate and support the work performed at sector and company level. In addition, a connection with a fourth level was made in 2005, REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals). This paper describes the evaluation of the VASt programme.
Approach and methods
The main part of the VASt programme was aimed at sectors and product chains, which were challenged to draw up and implement an action plan. The VASt prioritisation study (Nossent, 2003) indicated that there were 25 high-risk sectors. On the basis of this study it was announced that the VASt programme would be a success if more than half of those sectors, i.e. 13 sectors, were to implement an action plan. In order to evaluate the result of the VASt programme, quantitative as well as qualitative methods were used. The final evaluation was performed in the autumn of 2007, four years after the programme officially started, during the European Week for Safety and Health at Work 2003 (‘Dangerous substances, handle with care’).

The qualitative study (Bureau Bartels 2008) consisted of desk research, interviews with 15 key players, 93 persons active in the VASt action plans and 11 interviews with representatives of sectors that did not participate in the VASt programme.

The quantitative study (Vonk, 2005; Visser, 2007) was carried out using a telephone questionnaire among a representative sample of Dutch employers. The sample was taken from prioritised as well as non-prioritised sectors gained from the prioritisation study (Nossent,
The sample was not representative of all Dutch companies, but instead represented companies using hazardous substances in their working processes. The size of the company was also taken into account for the sample. At the end of 2004 the baseline study (Vonk, 2005) was performed among a cross-sectional sample of 5930 companies, resulting in a positive response of 2250 interviews, a response rate of 38%. Of these 2250 companies, 1790 (65%) could be used because they were working with hazardous substances. At the end of 2007 the follow-up study (Visser, 2007) was performed among a cross-sectional sample of 8268 companies, resulting in a positive response of 2245 interviews, a response rate of 27%. In this study the 2004 questionnaire was used, with some minor changes. Of these companies 97% were working with hazardous substances. The questionnaire was completed by the company’s own representative for occupational health.

Results
The data from the interviews showed that VASt was a wide-scale programme working in various ways to improve the policy on working with hazardous substances within companies. At its start the VASt programme was not totally filled in, but evolved along the way. Initially the programme had a budget of 10 million euros. However, due to increased interest in the programme, the budget was increased to 12 million euros.

The major part of the VASt programme consisted of the development and performance of action plans by sector organisations and product chains. In the beginning only high-priority sectors were invited. However, at first the interest of these sectors was low. Therefore, other sectors were also invited to join the programme. In the end 24 action plans for sectors and later another 2 action plans for industrial estates (multiple companies at a local level) were performed. The following sectors were included: hospitals, pharmacists, asbestos removal, distributors of chemicals, industrial cleaning, general cleaning, metal working, ship and yacht building, dental technicians, paint distributors, art restorers and artists, the metallurgical industry, natural stone, shoe repair, agriculture, rubber and plastic, construction (various sub-sectors), the textile and carpet industry and the department of defence.

The potential reach of these action plans was estimated at 184,000 companies, adding up to about two million employees. The sectors had the freedom to develop their action plans according to their own wishes. The only obligation was to deal with ‘substances, exposure and measures’, ‘product chain’ and ‘knowledge infrastructure’. This resulted in action plans.
with a wide variety of activities as well as plans that developed only one specific instrument. The ministry supplied the sectors with various instruments to be used, like the Stoffenmanager, PIMEX (PIcture MIxed EXposure) and AWARE (Adequate Warning and Air REquirement).

Most of the sectors (80%) were satisfied with the way they performed their action plan. Positive points were that useful instruments were developed, that there was a good collaboration between the relevant actors and a willingness to participate on the part of the companies. Additionally, more information on hazardous substances became available within the sectors. Negative points included the time in which the action plan had to be performed. For a lot of sectors it was too short, resulting in less time for the actual implementation of the instruments within the companies. Furthermore, it was often difficult to reach all companies within the sector as well as reaching the suppliers of chemicals as part of supply chain activities.

As part of the VASt programme three major instruments were developed or redeveloped: Stoffenmanager, PIMEX and AWARE. The Stoffenmanager (www.stoffenmanager.nl) is a web-based risk assessment tool and was initially developed to assist SMEs in prioritising and controlling the risks of handling chemical products in the workplace (Marquart, 2008). The Stoffenmanager is open source software and its use is free of charge. The Stoffenmanager matured during the VASt programme, and is now a generic tool for use in all kinds of companies; it is currently available in English and Dutch. As part of the action plans nine sectors developed a sector-specific version of the Stoffenmanager. Meanwhile, the exposure model of the Stoffenmanager was quantified using new and existing exposure data gathered from several sources (Tielemans et al., 2008). The model of the quantified version can also be used in exposure assessments for REACH and is incorporated in the REACH guidances (ECHA, 2008). Furthermore, the Stoffenmanager was acknowledged by the Dutch Labour Inspectorate in 2008, which means the Stoffenmanager could be used for the quantitative evaluation of exposure to chemical agents as part of compulsory risk assessment. The generic version reached 10,000 registered users (September 2009) and can therefore be seen as a success in the Netherlands.

PIMEX is a video exposure monitoring method (Rosen, 2005). As part of the VASt programme PIMEX was further developed for risk communication. More than 50 professional
videos were made with PIMEX as part of 16 of the 24 action plans. PIMEX has been used for training workers in using personal protective equipment and control measurements in the right way, but also to enlarge the knowledge of chemical risks and to motivate workers and management to use safe working procedures or to take measures and to visualise a good practice method (www.arboportaal.nl/stoffencentrum/instrumenten/pimex-1).

AWARE is a coding system for products containing volatile organic compounds (VOC), a tool for product manufacturers to support risk assessment and product innovation. Additionally it can be used for hazard communications with end-users to inform them about the potential health risks of hazardous products. A higher AWARE score does indicate a higher risk.

The quantitative study using a telephone questionnaire showed that 15% of all companies working with hazardous substances were active in some way in the VASt programme or were using its instruments. Six indicators were selected from the questionnaire to describe the existence of a policy on working with hazardous substances within companies (Table 1). Three of these six indicators developed positively during the VASt period. Firstly, the number of companies having a sector-specific risk assessment tool for substances doubled from 7% in 2004 to 15% in 2007. This development was in line with expectations, because most of the action plans addressed this subject. The increase in the use of a sector-specific risk assessment tool was visible among SMEs as well as among large companies; however the smaller companies are still running behind, i.e. 13% for small companies, 19% for medium and 31% for large companies.

Secondly, the number of companies not receiving safety data sheets decreased from 35% in 2004 to 25% in 2007. Thirdly, the number of companies giving their employees instruction or information on working safely with hazardous substances increased from 54% in 2004 to 59% in 2007. This increase was most visible in SMEs, but it still clearly runs behind compared with the larger companies.
Two indicators did not change: firstly, the assistance of the sector organisations on hazardous substances was 55% in 2004 and 53% in 2007. Relevant for this study is that 1 in 6 companies is not a member of a sector organisation, which did not change between 2004 and 2007. Secondly, the number of companies that performed an exposure assessment did not change. This indicator is relevant because it indicates how well risk assessments are being performed as part of their legal obligations.

One indicator even developed in an unexpected direction, i.e. the number of companies which were satisfied about the information received, which decreased from 76% in 2004 to 64% in 2007. This could probably be explained because of the dissatisfaction companies expressed in 2004 that the quality of information was not sufficient, whereas in 2007 they wanted more information, which was not yet sufficiently at hand.

Additionally, 68% of companies who were active in VASSt or had a policy on working with hazardous substances declared that work with these substances was performed more safely during the past three years, due especially to better use of personal protection equipment and better working instructions.

Table 1. The development of the indicators of the policy on working with hazardous substances within companies.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Base line 2004</th>
<th>Final 2007</th>
<th>Significant change (p ≤ 0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of companies using risk assessment tool developed by the sector</td>
<td>7%</td>
<td>15%</td>
<td>Yes</td>
</tr>
<tr>
<td>% of companies having an exposure assessment as part of their risk assessment</td>
<td>24%</td>
<td>22%</td>
<td>No</td>
</tr>
<tr>
<td>% of companies never or almost never receiving a safety data sheet from their supplier</td>
<td>35%</td>
<td>25%</td>
<td>Yes</td>
</tr>
<tr>
<td>% of companies for which the sector organisation is active or helpful concerning hazardous substances</td>
<td>55%</td>
<td>53%</td>
<td>No</td>
</tr>
<tr>
<td>% of companies giving their employees instructions or information on working safely with hazardous substances</td>
<td>54%</td>
<td>59%</td>
<td>Yes</td>
</tr>
<tr>
<td>% of companies which are satisfied concerning information available on the risk of working with hazardous substances</td>
<td>76%</td>
<td>64%</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Conclusion

This paper shows that it is difficult to directly relate the activities performed at the sector level as part of the VASt programme with changes to working conditions at a company level. In particular, the indicator – assessment of exposure – did not change. Additionally, the results showed that there were positive developments among the active as well as the non-active sectors included in VASt. Based on these results it could be concluded that the VASt programme was not successful, because the main aim of the programme was to implement the existing regulations and as a result increase compliance. However, the qualitative study showed that almost all instruments and measures described in the action plans carried out by the sectors were indeed realised. At the same time, the sectors declared that this was done with a great deal of pressure to meet the programme’s deadline. As a result, the implementation of the instruments and measures started only at the end of the programme and is still ongoing, according to the sector organisations. A good example is the still increasing number of users of Stoffenmanager.

It can be concluded that the VASt programme contributed mostly to opening up the available information and knowledge on working safely with hazardous substances, aiming especially at SMEs. According to the sector organisation VASt also increased awareness, however this was predominately apparent in the companies directly involved in executing the action plans. According to the sector organisation the remaining companies will be reached within the near future.

At the same time the larger companies are still performing better compared to SMEs. However, the increase was relatively greater within SMEs, which was to be expected because SMEs were still running significantly behind the larger companies.

Without exception all sectors cited the importance of continuing the process and continuing the implementation, which had just begun. However, this will have to be done without further financial support from the government. Most of the sectors have already made plans to continue the process by making agreements on available manpower and allocating financial means. Equally importantly, the Ministry is continuing the development of instruments such as Stoffenmanager and making all the developed knowledge available through their website, www.arboportaal.nl/stoffencentrum.
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WS5.2-3 Abstract:

‘The Dutch practice of Risk Assessment in Small Enterprises’
by M.J. Meeuwen, MA, Senior consultant and Manager international affairs, TNO Quality of Life, Hoofddorp, The Netherlands

Since 1994 Dutch businesses employing staff have been required to perform a Risk Inventory and Evaluation (RI&E). It is apparent that many small companies (with 5-9 employees) and in particular very small companies (with 1-4 employees) are not fulfilling this obligation: 58% of very small companies and 47% of small companies have no RI&E. The aim of the study presented was to offer insight into how the voluntary compliance of the RI&E obligation by small companies in the Netherlands could be fostered.

The central questions in the presented study focused on the knowledge present in small companies about the RI&E; the costs and benefits of the RI&E as perceived by small businesses; the extent to which the RI&E is accepted and, related to this, the readiness of small businesses to comply with standards; and the informal control exercised by third parties of RI&E performance in small enterprises.

The study involved the following three research activities:
1. data analysis and a literature search;
2. expert meetings;
3. focus groups of business owners.

Dutch government policy concerning the compliance with statutory obligations related to occupational health & safety, including the performance of the RI&E by companies large and small, consists chiefly of encouraging and facilitating (organisations of) social partners in a sector (often trade associations) to reach agreement on the translation of policy to suit the sector and its implementation. This is known as the dominant policy route taken by the government.

The dominant route has been pursued in the past, often but not always with success. When developing any new policy concerning the RI&E obligation on small companies, there are two possibilities:
1. Building the dominant policy route by supporting sector and trade associations and increasing their professionalism. The digital RI&E projects of the Dutch Occupational Health & Safety Platform were one means by which this has been achieved.
2. Developing an alternative policy route via local players in municipalities where small business owners meet one another.

The alternative policy route is, however, labour intensive and not sector specific. The presented study shows that small companies maintain the most contacts at the local level and this level provides, therefore, the best opportunities for fostering voluntary compliance with the RI&E obligation.
The Dutch practice of Risk Assessment in Small Enterprises

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Abstract
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1 A study commissioned by the Ministry of Social Affairs and Employment and carried out by TNO Quality of Life, The Netherlands, 2008
1. Building the dominant policy route by supporting sector and trade associations and increasing their professionalism. The digital RI&E projects of the Dutch Occupational Health & Safety Platform were one means by which this has been achieved.
2. Developing an alternative policy route via local players in municipalities where small business owners meet one another.

The alternative policy route is, however, labour intensive and not sector specific. The presented study shows that small companies maintain the most contacts at the local level and this level provides, therefore, the best opportunities for fostering voluntary compliance with the RI&E obligation.

Key words
Risk assessment, small enterprises, compliance, OSH policy, enforcement

Introduction
Since 1994 Dutch businesses employing staff have been required to perform a Risk Inventory and Evaluation (RI&E). The RI&E should be used to devise a policy for improving the working conditions within the business. This has the additional effect of preventing, eliminating or controlling the identified risks. While many companies in the Netherlands have performed an RI&E, certainly among the large companies, it is apparent that many small companies (with 5-9 employees) and in particular very small companies (with 1-4 employees) are not fulfilling this obligation: 58% of very small companies and 47% of small companies have no RI&E.

The aim of this study is to offer insight into how the voluntary compliance of the RI&E obligation by small companies in the Netherlands can be fostered. This insight is intended to lead to practical building blocks for designing future policy in this area.

The central questions in this study concern the knowledge present in small companies about the RI&E; the costs and benefits of the RI&E as perceived by small businesses; the extent to which the RI&E is accepted and, related to this, the readiness of small businesses to comply with standards; and the informal control exercised by third parties of RI&E performance. The
Health and Safety Inspectorate’s enforcement (i.e. the ‘formal control’) of the obligation to perform an RI&E falls outside the scope of this study.

**Approach and methods**

The study involved the following three research activities:

1. data analysis and a literature search;
2. expert meetings;
3. focus groups of business owners.

The data analysis involved data taken from the Occupational Health & Safety in Action (Arbo in bedrijf) Monitor of the Dutch Health and Safety Inspectorate (hereinafter referred to as the AI-monitor), a large-scale study of a representative sample of Dutch companies carried out by the Health and Safety Inspectorate, and the Employers’ Monitor of Working Conditions (hereinafter referred to as the WEA), a large-scale survey of employers commissioned by the Dutch Ministry of Social Affairs and Employment (SZW).

As well as the above-mentioned sources, use was made of research reports and policy studies (including case studies), evaluation studies of products and services and information taken from websites. Every effort was made to use recent literature (since the year 2000) wherever possible.

In November 2007 two meetings were held with experts who have extensive contact with small businesses. These included representatives of trade associations, employers’ associations, occupational health & safety services (arbodiensten) and the fire brigade.

At the end of November/early December 2007 two evening meetings were held with the owners of small companies, in order to hear from them first-hand how they regard the RI&E obligation.
Results

Actual compliance with the RI&E obligation

Between 2004 and 2006 almost no changes were observed in the level of compliance with the RI&E obligation. According to the AI-monitor, the compliance percentage fluctuated around the 50% throughout the years 2004, 2005 and 2006. In 2006 51% of the companies inspected had an RI&E. The larger the company, the greater the likelihood of its having an RI&E. According to the AI-monitor, 47% of the companies with 1-4 employees and 53% of the companies with 5-9 employees had an RI&E in 2006. Of the companies with 100 or more employees, 97% had an RI&E. Small companies in the agriculture, fisheries and minerals sector, the building and utilities sector and the industry sector have a relatively high level of compliance with the RI&E obligation. The hotel and catering sector and the repair and trade sector have a relatively low level of compliance. Compared with other obligations arising under the Working Conditions Act, such as those relating to company emergency response (BHV), compliance with the RI&E obligation is relatively low. For all obligations, larger companies have a better level of compliance than small companies.

Of the companies with an RI&E, 79% had drawn up a plan of approach in 2006 (AI-monitor). Larger companies, relatively speaking, have drawn up more a plan of approach than smaller companies. Fewer companies in the hotel and catering sector have a plan of approach than companies in any other sector.

Knowledge

What do people in small companies know about RI&E regulations? Are the regulations clear? Do they know more or less about these regulations than they do about other topics in the fields of occupational health & safety or social provisions?

As far as the knowledge of RI&E regulations present in small companies, we conclude the following:

Familiarity with the RI&E obligation
Data from the WEA show that small companies seldom cite of their own volition unfamiliarity with the phenomenon of the RI&E as a reason for not having an RI&E.

Unfamiliarity with occupational health & safety regulations in general is cited by few companies as an obstacle to complying with occupational health & safety regulations. According to the experts with whom we spoke as part of this study, unfamiliarity with the RI&E is more widespread than the above would suggest. Examples from practice show that some business owners have never heard of the RI&E.

In general, small companies are less familiar with occupational health & safety and social regulations than larger companies. This is true, for example, of recent amendments to the Working Conditions Act and the Gatekeeper Improvement Act (WvP). Although it must be said that the WvP is more widely known among small business owners than the RI&E obligation. This may be due to the practical nature of the consequences of insufficient compliance with this Act, which include the risk of having to continue paying a sick employee’s wages for an additional year.

Knowledge of how to perform an RI&E and implement working conditions policy

A lack of knowledge about how to perform an RI&E is cited of their own volition by few companies as a reason for not having an RI&E. This is shown by data from the WEA. In addition, the scope of the working conditions regulations and lack of clarity about their scope form an obstacle to compliance for few small companies.

It is evident from the literature that many small businesses lack the necessary expertise related to providing working conditions care in general. This is related to the lack of a staff role charged with this responsibility in small companies, as well as the fact that small businesses work in a more problem-driven manner and apply a short term perspective to resolving problems, including those related to working conditions. The need for knowledge arises only when something happens. The approach taken is reactive rather than proactive.

Earlier policy initiatives

Initiatives have been taken in the past to provide companies with information about the RI&E and support with its performance. Two important initiatives are the SME
occupational health & safety activity programme and the Dutch Occupational Health & Safety Platform (Arbo Platform Nederland), which also carries out activities. From the evaluations of these initiatives we conclude that, despite them, small companies have consistently been a hard-to-reach target group. Less use is made of the products developed under the initiatives by the small companies (1-9 employees) than by the larger companies. The evaluation in 2004 of the digital RI&E projects of the Occupational Health & Safety Platform took place shortly after the Platform’s introduction. It may be that since then small companies have made more use of them. By contrast, some sectors, including agriculture and fisheries, are managing to reach companies, including small companies

Points for discussion

- The provision of information about the RI&E continues to be advised. The tone of this information must be positive. The content should be easy to understand and applicable in practice (good and best practices appeal).
- The information must be regularly offered anew.
- Channels must be used with which the small business owner often comes into contact (e.g. accounting consultancies and other local players).
- The support post for RI&E instruments can boost the use of digital RI&E instruments among small companies.
- There is no clear information post for business owners who are about to hire staff. This would be an appropriate juncture at which to offer information about the RI&E. Another good starting point at which information could be provided is the point at which business owners should complete a wage tax form.
- Vocational education and training for business owners can play an important role in the advancement of knowledge about the RI&E and working conditions care.

Costs and benefits

What are the costs and benefits of the RI&E for employers running small companies in terms of time, money, effort and intangible costs?

As far as the costs and benefits of an RI&E obligation as perceived by small companies, we conclude the following:
In the WEA small companies mention the high costs of performing the RI&E (time and money) but seldom give this of their own volition as the reason why they have no RI&E. However, from the literature and the meetings with experts and business owners it is evident that business owners regard the RI&E as a cost item, in terms of both money and effort. In particular, the costs charged by the occupational health & safety service for compiling an RI&E and having it tested are felt to be high. Similarly, when deciding whether or not to perform an RI&E, business owners consider the costs, which may be high, of taking measures. It could be that business owners have an antiquated impression and that too little consideration is given to the simplification of legislation and the digitalisation of RI&E instruments.

In particular, making work ‘healthy and safer’ is seen by the companies as the benefit of occupational health & safety policy and as grounds for taking practical measures to counter occupational health & safety risks. This is shown by WEA data. This is more widely reported by larger companies than by the small companies (1-9 employees). WEA figures show that economic motives are seen as grounds for complying with working conditions policy by few companies. Conversely, during the meetings with business owners it was stated that safeguarding against claims made by employees is an important motive for businesses to perform the RI&E.

Business owners experience a heavy administrative burden; and they perceive the RI&E to be an element of this. The government has taken a range of initiatives to reduce both the administrative burden in general and the costs involved in performing and testing an RI&E. Sector-specific (digital) RI&E instruments can reduce the costs involved in performance. The business owners and experts with whom we spoke concur with this. Once an instrument is recognised or has been established in, by or in accordance with a collective labour agreement (collective labour agreement), the RI&E and the plan of approach require only a light test or no further testing at all. Clear oversight such as that provided by the companies’ helpdesk and front offices aims to reduce the burden on businesses and their perception of this burden. The latter can also be said of initiatives intended to reduce the administrative burden.

**Points for discussion**
• An increase in the number of available recognised sector RI&E instruments can reduce the costs of the RI&E for small businesses (25 employees or fewer); the support post for RI&E instruments has an important role to play in this respect.

• A clear relationship between the RI&E and the benefits for the business can encourage business owners to perform the RI&E.

• There would seem to be a role for insurers in encouraging business owners to perform an RI&E. Economic incentives by means of subsidies and investment grants and financing incentives under the tax system could also play a role. Business owners in our study reported, for example, that they felt it would be appropriate to receive a tax concession for having an RI&E. This requires close and complex cooperation between market parties and various national and local government bodies.

• Experts believe that coupling the RI&E obligation to other (municipal) obligations, such as a licence to establish a business or an environmental permit, offers opportunities.

Acceptance and the readiness to comply with standards

To what extent do the owners of small businesses accept the RI&E obligation as reasonable, of itself and compared with other obligations?

To what extent does the 'the readiness to comply with standards' (the willingness, motivated by habit or respect, to do what the government asks) concerning the RI&E differ from the level of this readiness in general?

As far as the extent of acceptance of and the readiness to comply with the RI&E obligation among small companies, we conclude the following:

• The acceptance of the RI&E obligation among companies without an RI&E is low: many of these companies believe it is not necessary to perform an RI&E because the company, in their opinion, is too small, there is little employee ill health and/or few occupational health & safety risks and it is not a priority. This is shown by the WEA.

• The WEA also shows that the majority of the companies with an RI&E believe it is useful to perform an RI&E. In the group of companies with 1-9 employees more than three-quarters is convinced of the benefit.
Small companies comply with occupational health & safety policy primarily because it is a statutory obligation (the readiness to comply with standards). This is evident from the WEA. Of the very small companies (1-4 employees) 48% reported of their own volition that they adhere to working conditions policy because it is a statutory obligation under the Working Conditions Act. Other important motives for occupational health & safety policy for the very small companies are the health of employees (35% of the very small companies stated this of their own volition) and the belief that this is morally right (13% of the very small companies stated this of their own volition).

Possible causes of the low acceptance that emerged from the literature and the meetings with business owners and experts are:

- The regulations are not sufficiently in step with what happens in practice and the business owner’s perception of things.
- The priority of business owners is the day-to-day activities and there is no culture of prevention at small companies.
- According to business owners, the effect of performing an RI&E is often invisible.
- While business owners do appreciate the importance of occupational health & safety and agree that these are part of good employership, they do not always appreciate how the RI&E can actually improve working conditions and reduce absence due to illness. They are of the opinion that these aims can be achieved without an RI&E.
- The experts and business owners with whom we spoke say that the RI&E has a poor image. Performing an RI&E is clearly an activity that is regarded as an obligation. As a consequence, companies have an RI&E performed but then do nothing with the outcomes. Thus, there is a certain degree of readiness to comply with standards, but internal motivation is often lacking.
- It is difficult to state the extent to which the acceptance of other legislation differs from the acceptance of the RI&E obligation. From the evaluation of the Foreign Nationals Employment Act, for example, it is evident that the acceptance level is reasonable but that this has barely any influence on compliance. The factors of overriding importance are evidently the likelihood of inspection, getting caught and the severity of the sanction.

**Points for discussion**
• A positive attitude by organisations with which a company has close contact, for example, colleague companies and trade associations, can raise the acceptance of the RI&E. This can be expected to apply in particular where the relationship with the trade association and/or colleague companies is good.

• While business owners are often aware of risks, they do not appreciate that the RI&E can help when reducing these risks. It is important, therefore, to emphasise the advantages to the business owner rather than the statutory obligation.

• The labelling of the RI&E as positive can raise the performance level among small companies. There lies a task here for the government and intermediary organisations.

• According to the business owners with whom we spoke, RI&E instruments should be designed to fit the business process as far as possible (superfluous questions should be avoided) and to meet the need of business owners for instant solutions wherever possible.

• The way in which companies work affects the acceptance of the RI&E obligation. Companies used to working with protocols accept the RI&E obligation as reasonable because it seems to fit in this framework. We believe that companies not used to this should be offered the RI&E in another way.

• Greater attention to safe and healthy working in vocational education and training for business owners can increase the readiness to comply with standards.

Informal control

What is the ‘informal control’ as far as the RI&E is concerned, as may be exercised by, for example, colleague companies, CAO’s (Dutch acronym for collective labour agreements), trade associations and insurers? What do employers know of this?

As far as the extent of informal control that can be exercised by various players, we conclude the following:

Strong opportunities for fulfilling the informal control role in a social sense:

• Employees: staff in small companies can report poor working conditions directly to the business owner. The lines are short and there is less anonymity. On the other hand, the fear of reprisal may be greater.
Colleague companies: the geographical concentration of small companies in shopping centres can be used to foster informal control. For example, through the Safe Business (Veilig Ondernemen) quality mark\(^2\).

Suppliers: as part of their provision of additional services, suppliers can help identify the risks to which their customers, the small businesses, are exposed. For example, a supplier of car paints can give companies instructions and advice.

National trade associations: provided these develop many activities via which small companies are among those reached. If, however, the emphasis is on the provision of information without obligation, barely any informal control role exists.

Local and regional employers’ organisations: because they are the closest to small companies.

Service providers, including accounting consultancies, which often organise the reporting of employee absence and the contract with the occupational health & safety service on behalf of small companies. They can bring the high costs and scope for making savings to the attention of the small business owners.

\(^2\) This only exists in the Netherlands.

Absence or sector helpdesks: the experts with whom we spoke observed that absence helpdesks or sector helpdesks can also play a role in encouraging companies to comply with the RI&E obligation and in monitoring their compliance.

The following seem to offer strong opportunities for fulfilling the informal control role in a sanctioning sense:

Certification and quality marks: a KIWA\(^4\) quality mark or a VCA\(^5\) certificate conferred on a contractor by an ordering customer provides strong informal control.

Insurers, because they can offer premium variation and occasionally refer to their own provision of occupational health & safety services. In addition, the role of insurers may expand as an effect of the privatisation of the implementation of the Resumption of Work of the Partially Employment Disabled Act (WGA).

Collective Labour Agreements: according to many business owners the collective labour agreement does not play an important role when employment terms and conditions are being set and agreements about the provision of working conditions services are being
made; more collective labour agreement agreements about occupational health & safety matters are expected to be made in the future. By contrast, there are examples of intensive horizontal oversight where collective labour agreement obligations are not being fulfilled.

The following seem to offer fewer opportunities for fulfilling the informal control role:

- Corporate social responsibility: small companies are insufficiently familiar with this concept and do not see its value.
- The Chamber of Commerce: small companies regard this body primarily as the keeper of the Commercial Register.
- Trade Unions: the degree of union membership among employees in small companies is very low and declining further.

3 Absence or sector helpdesks are set up by trade associations for their members to deal with absence issues that arise in connection with a collective contract with an occupational health & safety service provider.

4 KIWA is a notifying body in the Netherlands

5 VCA is Safety Contractors Checklist; a compulsory safety certification for all suppliers to Dutch petrochemical industries.

Finally:

- The informal control role that can be exercised by, for example, municipalities, the fire brigade and the tax authorities should be investigated further. Municipalities and the fire brigade are interesting players at the local level because many small businesses have dealings with them when applying for a licence to establish a business or building permits. Via the tax authorities the RI&E obligation can be coupled to other mandatory company tax returns.
- According to the experts and business owners with whom we spoke, small business owners do not regard the Occupational Health & Safety Service as a genuine advisor. It may be that the liberalisation of the provision of the occupational health & safety service and the updating of the services offered by the occupational health & safety services have not fully registered with small companies. Occupational health & safety services and individual occupational health & safety experts can raise their service level by assisting
the small business owner to fulfil the RI&E obligation, for example, by giving timely warning when the RI&E may soon be out of date.

- Fostering voluntary compliance by means of informal control is one approach. Companies regard the threat of or actual implementation of formal government control as a strong incentive to comply with legislation.

**Points for discussion**

- Promising forms of informal control can be investigated further and developed. This concerns:
  - The scope for better staff training, so that staff can better play an informal control role.
  - The integration of the RI&E with other obligations in one instrument.
  - An investigation whether the mandatory returns made by small companies to tax authorities and/or municipalities, such as an application for a licence to establish a business, can be coupled to the RI&E obligation.
  - An investigation of the role that the fire brigade and the municipality can fulfil in the fostering of compliance with the RI&E obligation.
  - An investigation whether local employers’ organisations, such as shop-owners associations, can be used to encourage small companies to comply.

**Conclusion**

**Dominant and alternative policy routes**

Government policy concerning the compliance with statutory obligations related to occupational health & safety, including the performance of the RI&E by companies large and small, consists chiefly of encouraging and facilitating (organisations of) social partners in a sector (often trade associations) to reach agreement on the translation of policy to suit the sector and its implementation. This is known as the dominant policy route taken by the government and it assumes the presence of a certain self-management ability at the meso-level, i.e. among trade associations, to actually make those agreements. Subsequently, it is
important that these agreements be implemented at the micro-level, i.e. at employee level in businesses. There exists a gap between these levels, known as the meso-micro gap. This is often difficult to bridge, especially where small to very small companies are involved (Veerman et al., 2007). Even where the self-management ability in a sector appears strong, there is no guarantee that the small companies will be reached.

The dominant route has been pursued in the past, often but not always with success. When developing any new policy concerning the RI&E obligation on small companies, it may be sensible to first make an estimate of the sector’s self-management ability, certainly if the sector is characterised by many small companies. If a sector has many varied interests (heterogeneity of interests) and complex risks (such as work pressure, aggression and violence), strong self-management ability is required. The need for this ability is heightened when such a sector has many small companies.

If after such an analysis it is evident that the self-management ability is strong and the meso-micro gap is narrow, the dominant policy route can be pursued. If the self-management ability is weak and the meso-micro gap is large, there are two possibilities:

1. Building the dominant policy route by supporting sector and trade associations and increasing their professionalism. The digital RI&E projects of the Dutch Occupational Health & Safety Platform were one means by which this has been achieved.

2. Developing an alternative policy route via local players in municipalities where small business owners meet one another.


The alternative policy route is, however, labour intensive and not sector specific. In short, this route should be investigated further. This study shows that small companies maintain the most contacts at the local level and this level provides, therefore, the best opportunities for fostering voluntary compliance with the RI&E obligation.

References
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WS6: 'Prevention of accidents and promotion of safety in small enterprises'

Organizers:
Nijs Jan Duijm, DTU Management, Technical University of Denmark
Pete Kines, National Research Centre for the Working Environment, Denmark

Systematic accident prevention and safety promotion are particularly challenging for small enterprises. Serious accidents occur relatively rarely in small enterprises, thereby reducing the motivation to spend resources on accident prevention. Health and safety promotion is primarily dealt in a reactive and informal manner, as opposed to a proactive and systematic approach.

The challenge of preventing accidents and promoting safety in small enterprises is to raise the awareness of risks and commitment to safety, as small enterprises become vulnerable when accidents do occur. Methods for raising risk awareness need to be adapted to the working culture and safety maturity in small enterprises – with tools being easy and straightforward to implement.

This workshop will provide a platform for discussion of methods, approaches and experiences in this field, including how occupational risk assessment methods can be addressed towards small enterprises.
Presentations, WS6: 'Prevention of accidents and promotion of safety in small enterprises'

Chair: Nijs Jan Duijm (with Pete Kines)

Time: Wednesday 21 October, 15.15-16.45
Location: B-10
WS6.1-1 Abstract:

‘An experimental preventive action for SMEs: A Trojan horse for a cross-learning scheme’
by Christophe Martin, Ph.D., assistant professor Master of Engineering ESAIP, Associate Researcher & Franck Guarnieri, Ph.D., Research director, Director of Center of Risks and Crisis, Ecole des Mines de Paris-Paris Tech, France

As regards Occupational Health and Safety (OHS), Small and Medium Sized Enterprises (SMEs) are hard to reach by the health and safety inspection. A recent evolution in the European and French regulations have led to many projects on the preventive actions which have been carried out in order to inform managers-owners of their duties in OHS issues. Among the remarkable actions which have been implemented in France, information meetings made for every branch of industry can be taken as an example. Specific guides for craftsmen could also be mentioned.

All these supports have increased the level of awareness of the OHS issue in SMEs but have also reached their limits in terms of effective assistance and generalization. This paper therefore aims at presenting a collective preventive action which involved a research laboratory, a chamber of commerce, OHS advisors as well as the labour inspectorate. This pilot action designed for managers-owners of small businesses under 50 employees allowed volunteers to assess their level of compliance with OHS regulations thanks to a software tool. This tool was a Trojan horse in order to establish a dialogue between OHS advisors and Small businesses’ managers.

At the end of this action a qualitative survey has been carried out to assess the relevance of this experimentation and to have a better understanding of why managers got involved in this kind of scheme.

First are described the hypotheses and steps of this experimentation. The results are then discussed in terms of reproducibility and a generalization of the action.
An experimental preventive action for SMEs: A Trojan horse for a cross-learning scheme

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Franck Guarnieri, Ph.D., Research director, Director of Center of Risks and Crisis, Ecole des Mines de Paris-Paris Tech, France, franck.guarnieri@crc.ensmp.fr

Abstract
As regards Occupational Health and Safety (OHS), Small and Medium Sized Enterprises (SMEs) are hard to reach by the health and safety inspection. Among the remarkable actions which have been implemented in France, information meetings made for every branch of industry can be taken as an example. All these supports have increased the level of awareness of the OHS issue in SMEs but have also reached their limits in terms of effective assistance and generalization. This paper therefore aims at presenting a collective preventive action which involved a research laboratory, a chamber of commerce, OHS advisors as well as the labour inspectorate. This pilot action designed for managers-owners of small businesses under 50 employees allowed volunteers to assess their level of compliance with OHS regulations thanks to a software tool. At the end of this action a qualitative survey has been carried out to assess the relevance of this experimentation.

Key words:
Small enterprises, occupational risks, compliance, preventive action, risks assessment

Introduction
In France, 55% of the working population is employed in SMEs. The two thirds of manpower working in SMEs are employed in companies of less than 20 employees and create 66% of
the Gross Domestic Product (GDP). The weight it bears on the French economy account for the fact that OHS could not be durably improved without taking into account the specific problem these organizations represent. Although comparisons between large and small companies are difficult to draw on the international level (Sorensen and Hasle, 2007) a high occupational injury rate in small entreprises – more particularly those which count between 20 and 50 employees – can be observed. (ISAST, 2006)

As regards the OHS issue, managers see the professionals of prevention only through their mission of control so that SMEs seem to be an impregnable fortress (Rigby et al., 2001). There is thus a need to set up adapted devices which take account the characteristics of these kinds of enterprises.

Many prevention programs have been highlighted. They all take into account the characteristics of the SMEs and their environment and are all based on the social, economic, lawful, and professional pressure as well as the one borne by trade-unions (Walters, 2003). These prevention programs which have all been assessed by research are addressed most of the time to the managers with the attempt to find out how to go beyond the reservations of the managers to get involves in a risk prevention scheme. under a prevention program of the risks.

Among the remarkable experiments let us quote those founded on of the the theories of unsought goods (TAIT and Walker, 2000), the psychosocial analyze of involvement (Grosjean, 2003) as well as all the international actions of prevention which rest on intermediaries.(Lamm, 1997; Eakin 2000; Hasle, 2000; Rigby et al., 2001; Walters, 2001; European Agency, 2003; Limborg and al, 2004.)

The questions raised by these prevention programs arose in France when the statutory device of risk assessment unfolded under the pressure of European and national policies. Indeed, the year 2001 represents a turning in the labour law with the introduction of the obligation for the employer to assess the occupational risks. Concomitantly to that, the implementation of OHS national and regional schemes involved a strong mobilization of the actors of prevention in favour of small companies.

The collective action plan which is presented in this paper lies within that particular context and aims to reinforce knowledge on the matter.
The objectives of research are as follows:
- As regards statutory compliance, the aim is to constitute a database of the rates of compliance of enterprises independently of their branch of industry.
- To assess this type of device and its reproducibility.
- To validate the determining factors highlighted by international research thanks to the data collected during the interviews.
- To highlight the new factors of the involvement of the managers to this type of action.

After having clarified the device and methodology used, this paper proposes to have the results of the diagnosis of conformity and the interviews carried out with the managers.

**Approach and methods**

The collective action plan falls under a regional context of assistance to risk in SMEs (Martin and Guarnieri, 2008). The starting assumption of the action is that the causes of this delay are primarily related to a bad knowledge of the regulation by the managers of SMEs.

This collective action plan proposes thus to carry out an audit of conformity in SMEs by using a software tool. To reach the managers effectively, the device uses actors relay which are the Chamber of Commerce and of the Industry of the Alpes-Maritimes (CCI) 06 and one Center of Assistance to the Creation of Companies (CACE). The territory concerned is the department of the Alpes-Maritimes and the action is financed by the labour inspectorate, the Research Center on the Risks and the Crisis of the Ecole des Mines de Paris (CRC) and the participating companies which finance the audit partially.

As regards the actors involved in the action plan:
- The CCI as an actor relay has presented the program to its members assuring them of the data confidentiality and their independence of the mission from the labour inspectorate. This point was a fundamental one within the context of the strengthening of the control related to the implementation of the new regulation. The CCI constituted here the adviser traditionally used by the contractors. The CACE played the same role with its members.
- **OHS advisors but without particular competence as regards SMEs.**

As regards the tool which has been used is a software platform of assistance to the risk management which was co-developed by a young company (the Preventeo company) prize winner of a competition of innovating technology and the CRC. Its main customers are the
large national companies in different branches of industry (air transports, chemistry, electronics, aeronautical engineering…), but it also tries to create innovating solutions adapted to SMEs.

It allows:
- to control applicable texts and statutory requirements;
- to identify nonconformities with the regulation;
- to analyze and assess occupational hazards;
- to define actions and priority preventive measures.

This software package which rests on a basis of knowledge of more than 1.000 questions indeed makes it possible to identify the statutory texts applicable to an entity and to check conformity with more than 1.600 regulation requirements.

The selected companies (tables n°1 and 2) were recruited by way of press and mass mailing. Involvement in the program was perfectly free for the participating companies. The size of the companies was one of the criterion of selection. The objective of the research was to study companies whose manpower was lower than 50 employees in various branches of industry. Five companies of bigger sizes were selected for the existence of an OHS Committee.

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Table 1. Companies involved in the collective action scheme CCI

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<td>17</td>
<td>Plasters and decoration of interior</td>
<td>11</td>
<td>no</td>
</tr>
<tr>
<td>18</td>
<td>Frames and construction of houses out of wooden</td>
<td>23</td>
<td>no</td>
</tr>
<tr>
<td>19</td>
<td>Management of joint ownerships</td>
<td>6</td>
<td>no</td>
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<tr>
<td>20</td>
<td>Installation of garden and sale</td>
<td>11</td>
<td>no</td>
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<tr>
<td>21</td>
<td>restoration and hotel trade</td>
<td>25</td>
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<td>electronics</td>
<td>3</td>
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<td>23</td>
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<td>24</td>
<td>Restoration and depollution after disaster.</td>
<td>24</td>
<td>no</td>
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<tr>
<td>25</td>
<td>Sorting of waste</td>
<td>25</td>
<td>no</td>
</tr>
<tr>
<td>26</td>
<td>Pose travelling shutters</td>
<td>3</td>
<td>no</td>
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</table>

Table 2. Companies involved in the collective action scheme CACE

The companies were audited according to the following outline:

- Phone call to make an appointment for an average of half a day audit.
- Once the audit has been carried out an analysis of the results by the technical adviser.
- A phase of restitution of the results.
- At the end of the restitution and after a work group session (Labour inspectorate, CCI, OHS Advisors, CRC), the representatives of the companies have been surveyed. The survey took the shape of a half-guided interview and concerned three main issues: the general state of the practices of risk prevention, an appraisal of the mission, the contributions of technology. The interviews have been analyzed according to the method of the conceptualizing categories (Paillé, 2004) adapted of Grounded Theorie.(Glaser and Strauss, 1967).

The audits were carried out between September 2005 and January 2007. The interviews have been carried out between February 2007 and May 2007. The interviews which have lasted an average of an hour have been carried out face to face after the appointment had been made. They took place either with the manager or the people in charge of the audit. They were either recorded or notes have been taken. In 15 of the companies, complementary interviews as well as phases of observation in the workshops have been made possible and have allowed for some conditions of production to become clearer.

Results

The audits for compliance with OHS regulation of the companies were all carried out with the Preventeo software package. In this section of the paper will be presented first the methodology of the tool and then the results of the companies which have been audited.

Results of the audit

The audit follows several stages:
- Stage 1: Formalization of the organization of the company on several levels (establishment/Work unit).
- Stage 2: Identification of the issues and the statutory requirements which applies to the selected entity.
- Stage 3: Unfolding of the questionnaire of the audit to identify the conformities or non conformities with the requirements to be applied. The questions are closed questions.
- Stage 4: Identification of measures in accordance with the regulations.
- Stage 5: Edition of a statutory report of consolidated audit.
The audit is composed of 89 statutory issues distributed according to 14 families of dangers (chemical, biological, travels, environment of the workstation, electric, fire or explosion, handling, mechanics, radiations, human factor, work in height, situations with visual constraints, organization).

The first work of the auditor and the person in charge of the establishment is thus to identify the statutory issues to be applied to the company according to its size, its activity and the material which is being used.

For each issue which has been identified, a questionnaire is proposed. This latter one rests on the specific texts in relation to the selected issue.

Each statutory requirement which is not respected or for which one cannot bring the proof of its respect involves a nonconformity.

The percentage of statutory compliance of the company is thus the number of statutory conformities divided by the number of requirements to be applied to the company.

Each nonconformity is subjected to a recommendation chosen according to 11 means of prevention which are: piloting, analysis, design and the fitting out of the workplace, checking and periodic control, documentary control, the means of intervention and help, medical supervision of the personnel, the concept of collective protection and the individual protections.

The distribution of the statutory compliance as far as occupational heath and safety is concerned of the action which have been carried out with the chamber of commerce and industry reveals percentages of statutory compliance ranging between 35% and 63% according to the companies. The results of the second action show percentages ranging between 49% and 67%. The average of the nonconformities for all the companies is of 43% for a median percentage of 49%.

The companies which obtained the highest percentage of compliance are the companies which have a health and safety committee and/or which have a safety expert in-house.

The results of the entreprises’ compliance according to the families of dangers present important variations (table3).
Table 3. Results by family of dangers for all the enterprises which have been audited.

By sharpening the analysis of every family of danger, it can be noted that the points for which the percentage of compliance is the highest are those for which there is a topicality in terms of prevention.

Indeed, the highest rates are reached for the mechanical field, for the human factor management and the electric fields as well as for travels. However, within these families strong disparities can be observed.

Concerning the dangers of the mechanical family, for the use of elevators and boilers, the rates of compliance are of 50% for the all the companies, they are only of 33% for the use of work equipment. For the handling, statutory compliance related to the lifting gear are filled to 35% but to 0% for manual loads handling.

As regards chemical risks, the statutory requirements which concern asbestos are filled to 44% but they are only of 8% concerning substances or dangerous preparation (except agents Carcinogenic Mutagen and Reprotoxic agents (CMR)) and of 9% concerning the exposure to the CMR agents.

As regards the human factor, on eight statutory issues, four have rates of conformity of 0%. They concern night shifts, alcohol at work, the presence of smokers on the work place and the formation when an outside firm utilizes its personnel in a user company. The obligations concerning the intervention of the personnel in outside firms and the recruiting of the personnel are between 33% and 50% and have striking disparities. Indeed, whereas the
percentage of compliance concerning the personnel engaged in the form of permanent contract is of 50%, it is only of 38% concerning temporary work and 33% concerning the presence of personnel engaged under fixed-term contract.

Eventually, the family of dangers related to the safety management reveals that among all the companies which have been audited only seven had carried out/filled set up their OHS risk assessment form. It concerns the largest companies of the sample. The results by means of prevention have shown a tendency to privilege the individual protective equipment to the detriment of the collective protection. Indeed, whereas the regulations concerning the provision of individual protective equipment is respected to 63%, compliance with the regulations concerning workstations is nonexistent, and compliance concerning the collective protection is usually only filled to 25%.

All these data confirm what is observed in companies of this size. Concerning the individual protective equipment, there is a tendency to consider that the employees are at the core of the problem and that they must ensure their safety.

In terms of training and information of the personnel. The companies which have an OHS committee show they are more compliant, which confirms the results of the SUMER survey (DARES, 2008), namely that training and information provided to the employees are related to the existence of a workers’ representation.

There is thus in the whole sample great disparities between the companies with a tendency to higher compliance for the companies of more than 50 people and which have a staff representation.

If statutory compliance meets a certain number of limits to assess the level of prevention of a company, it is nevertheless an interesting indicator since it both allows to take stock of the situation and to reveal the points on which there is a certain homogeneity in terms of compliance or nonconformity. It should be noted that it is difficult to reveal differences according to the branches of industry.

**Results of the interviews**

As a whole, the mission fulfilled its objective. Beyond a simple mission of information and meeting on exchanges of practices, it has allowed the companies to become aware of the statutory frame of reference and to take some time to ponder over these issues. Most of them have kept the control over which priorities they should deal with first, although it has been agreed that a certain number of questions could be treated at the same time.
The managers’ position however splits into two different opinions:

- The first considers that the regulations provide the main themes towards improvement. There is in that case a spreading of the results and a work in collaboration with the organizations of prevention.

- The second considers on the contrary that the spreading of the results represents a threat for the company (family business and of smaller size with an absence of staff representation). In that case the information are confined to the managerial level.

- Interview of the managers/owners : Validation of the international invariants

The objectives of the semi-directed interviews carried out at the close of the restitution of the diagnoses were to validate in France a certain number of international invariants highlighted by the literature and to reveal some categories which would explain and highlight the determinants of the managers’ involvement into this type of action.

The analysis of the interviews was done according to the method of the conceptualizing categories, the categories which corresponded to those highlighted by the various studies were retained and are presented below. Five main categories were considered: the attitude of the manager, his perception of the role of the institutionals of prevention, his/her membership to a professional network, the evolution of occupational risk management according to the life cycle and the relationships between the OHS advisors and the managers.

- **The attitude of the manager**

What the results of the survey carried out with the entreprises involved in the collective action programme have revealed is that no managers have shown a lack of interest in OHS matters. The free participation in the programme may have skewed the results insofar as it may be considered that all the entreprises involved in the programme were concerned with the issue. During the interviews, when asked questions about the level of information at their disposal as regards OHS regulations, 62% of the managers answered they consider being quite well informed. This statement needs nonetheless to be qualified as some of the participants do indeed consider being rather well informed whereas some others consider to have an acceptable level of information. A more detailed description of the means of information at their disposal allows to sharpen their answers and to distinguish between:

- The managers well informed about the means of information at their disposal, going regularly on institutional sites and quoting them spontaneously. It usually concerns the companies employing staff representatives.
- The managers who are part of a trade-union network and who consider themselves rather well informed. As the managers of the first group they are aware of the extent of the regulations.

- The third and last group includes managers whose fragmented information is lavished by the advisers of the company, accountants, lawyers, safety advisers. For these latter ones, many gaps as well as contradictions could have been observed during the interviews showing their lack of knowledge of the matter.

The most widespread attitude is that described by Eakin (1992). Hazards are left to the employees’ judgement – they are either considered as a professionals who know their trade or as immature employees one cannot watch all the time.

“The guys have been mounting frames for 20 years, it’s when I tell them to tie themselves up or tell them to do things they are not used to that I put their life at risk. Same for the shoes, if I make them wear safety shoes, they just can’t, they are used to their climbing boots, they are more flexible”. Carpentry manager, 20 employees.

The profile of the manager distinguishing himself/herself by his/her non conformity is the incompetent manager as described by Lamm (2001). He/she is described as having few competences in human resources management but his/her nonconformity is due more to the ignorance of the rules than to his/her deliberate failure to comply with them.

- The level of proximity with the institutionals of prevention

A second determining level of prevention is the degree of proximity with the institutionals of prevention. During the interviews, the relations with the institutionals of prevention were approached on various occasions. For most of the managers, the relationships with the social insurance inspectorate and the labour inspectorate were badly thought of.

“I do not willingly appeal to the labour inspectorate. They are people who wrongly or rightly are from the point of view of the employers badly thought of.” Production manager, perfume industry.

These organizations are always associated with a mission of control and sanction.

“When one works with the occupational medicine and the factory inspectorate, there are always the two aspects of help and control” Production manager, perfume industry.

The managers often feel as if a particular hazard was emphasized at a particular period of time and as if all the rest was disregarded and overlooked. “If I had to define the social insurance inspectorate I would say that all they do is to look for problems (...). I think that from time to
time they are called to order. They have very specific ideas about how things must be done.”
Production manager, cosmetic.

A lack of comprehensive view and technical training of the professional cultures on behalf of organizations of the prevention are frequently underlined.

There has nonetheless been an evolution for the companies in which there is a Health and Safety Comittee. In this case, even if limits in terms of competences on behalf of these organizations are highlighted, the relations are more open.

Throughout the interviews there still is a difficulty to establish a contact between small companies typical of a family firm and the organizations of prevention. This result confirms the Swedish studies presented by Walters (2001), in which 47% of the small companies have never been contacted the labour inspectorate whereas they only represent 18% in the large companies.

- The importance of the employer’s social network

As regards the integration of the managers in the trade-union networks, the interviews have shown that those who work with a profesional organization have taken part to more training session on this issue. However the level of compliance to the regulations is not higher than in other companies.

- Prevention and life cycle of the company

The state of prevention follows the life cycle of the company. It is the conclusion of the investigation of Favaro (1999) who considers that the developmen t of a small company involves a certain number of internal and external changes at the origin of a modification by the managers of the perception of OHS problemes. Although it is not easy to set with accuracy the life cycle of a company, 10 managers out of 26 were able to define the stage in the evolution of their company whether it be in technological terms, in terms of turnover or manpower. On several occasions the question of OHS was related to the environement and a global process of certification and setting to the standards.

” The action has come at the right moment for lots of reasons. I did not have time to deal with that before. The department had been structured and we have employees doing what I was doing before. Three years ago, we were 4, today we are 22. When you set up your business, the main point is to live, to exist, not to disappear. You have to develop a product and convince the customers. I am not telling this is not the case today but we can say that we’ve been through that and what we have to do now is to perpetuate our activity and safety is a way
to do that. We can’t miss that out but it’s not you start with when you set up your business”
humidication/cold enterprise manager
The action thus has both provided information on the regulation which applies to companies
but corresponds also to a will to implement tools and develop a methodology.

- OHS advisors-managers relationships
The relationships between the advisors and the managers are described in the north-European
literature (Hasle, 2000; Limborg, 2004). This research work underlines the difficulties of
making cohabit the two cultures and the necessary training of the advisors to OHS problems
in SMEs. The advisors have indeed a strong tendency to asses the level of compliance of the
small companies by comparison to the large ones. All the advisors involved in the action have
met for the groundwork sessions as well as for the analysis of the results. One of the main
interest of the advisors concerning their involvement in the research project was that of a
better knowledge of the running and the attitude of small firms facing OHS issues.
Two outstanding facts were raised by the advisors:

- The first is that of the difficulty of making an appointment with the managers or the
  representative delegated to the audit. The action was planned on a whole year. It was
delayed for nine months with great intervals between the audits and their restitution.
  That time lapse will be greatly refered to by the managers as it will be seen in the next
  section.
- The second is concerned with the pedagogical feature of the audit; especially during
  the restitution when the manager seeks to validate his/her level of compliance. The
  audit becomes a pretext for an exchange of information which seem basic for the
  advisor.

The survey has thus allowed to find in France most of the the invariants highlighted by
international research. There indeed is a size effect which allows to distinguish similar
approaches in the companies with less than 50 employees whatever the branch of industry.
Independently of the risks met and the professional cultures, the level of prevention depends
largely on the attitude of the manager.

- The deciding factors to the involvement to a collective action
The analysis of the interviews has furthermore allowed to reveal a number of categories
which have provided a better understanding of the deciding factors leading to an involvement
of the companies to this kind of collective action. This part presents and connects them. The
managers’ motivations related to the way they conceive time and an underlying concern accounting for the involvement to the action will be the subject of the first two paragraphs. The trust and the existence of a tool as a support of the audit are the requirements of the involvement in this scheme will be treated in the following paragraphs. The appropriation of the data of the audit and the operationalization of prevention are the objectives to be reached for the managers and will be described in the last paragraphs.

- The efficiency of the action

A first observation relates to the time devoted to safety. Time must be productive. Through the interviews it appears that the decision to get involved within the program is strongly related on the duration of intervention which was proposed and to the supervision of the program by an expert. The time that the managers of SMEs can devote to an action of this type is short compared to what may think the advisors. “It was very long, we have spent maybe four hours on the software part” Responsible perfumery production.

The actions under consideration in other countries spreading over several meetings would not have been easily conceivable in the SMEs of the sample. “It was very long, the fact that it was supervised was quite interesting because the person who was there gave us the impulse, but it was long anyway, I think it lasted the whole afternoon”. Production manager, cosmetic.

Besides, the financial check is more related to the effectiveness of time which has been spent than to the cost of the action in itself. “The cost of all these trading standards and these regulations is incredible, I mean, in terms of productivity. It takes time, it’s very expensive and we’ve often got the feeling it’s not worthwhile” Manager, Agroalimentary

Time is thus an important component in the decision whether the manager will get involved in the collective action. It must be in coherence with the production constraints of the company. The smaller the company is, the more the versality of the manager must be and more it weights on the time spent for safety matters. The financial aspect becomes then crucial (Walker and TAIT, 2004). It is not really the cost of the action which is determining but the cost of the time spent related to the competences of the advisor.
“I think we’ve all benefited from that experience, in terms of tools, quickness of his answers to our questions and the questions he asked us. We have spent two whole days with him but in terms of results it was very good” Human ressources manager, pharmaceutic sector.

- The manager’s concern

The interviews reveal a concern about the explicit or underlying regulations applied to the entreprises. The involvement to the programme itself reveals that endemic doubt. When the action was proposed, one of the unknown factors was the degree of participation of the companies. In the two actions, the reaction times were very short and the number of voluntary companies has allowed to select a sample of companies corresponding to the needs for the survey.

Concern is initially in relation to an absence of knowledge of the regulation as a whole.

“There are new regulations coming up all the time. I wonder whether anyone have heard of them all. What is surprising with the audits is that every year or every two years we call upon somebody to have an outsider’s viewpoint on the level of safety and every time something new shows up so the job’s never completed.” Production manager of a company of road signs.

In a second phase, the managers who have been interviewed have expressed a concern and helplessness facing the regulations and some difficulties of establishing a regulation alert system.

“I think that we endure things more than we are informed. There’s a lack of information. As far as we’re concerned, did we knock at the good door? As a general rule I think there’s an excess in standardization. But when we look at it there’s always something positive about it – to make the company improve and go forward but it’s always presented in such a way that we rather feel overwhelmed with all these regulations instead of trying to find positive solutions.” Manager electronic company.

That doubt and that feeling of helplessness accounts for the recourse to an expert. The expression which is most often uttered is ‘to win each other’s trust.’

“The advisor’s is impartial in his analysis and helps on what is necessary to do and what is made elsewhere” Technical manager, packing industry.

The managers need to be guided. The fact of being able to rely on a tool as well as a methodology gives credibility to the procedure and meets the needs for method. The support of the software tool allows to minimize the doubt SMEs have to overcome. The statutory approach requires an expertise to highlight the texts which apply to the company. It allows an
comprehensive approach guided by the consultant. “We could have answered the software questions without the assistance of a consultant, the problem is rather to ask the good questions” Technical manager, road signs company.

The software tool becomes an artefact which provides a context in which knowledge is shared. The software tool becomes a central support for the contribution of knowledge but becomes also a training tool to statutory compliance. The direction of a text can be explained throughout the questionnaire. The audit is not confined to the binary aspect ‘conforms and does not conforms’ but takes an important pedagogical dimension for the implementation of the preventive device in the company. Indeed, the manager must have interiorized the finality of the rule to conform to. The preventive action becomes then a formative one.

The explanatory role of the adviser is then reassuring and answers the concern of the manager.

“It gave us the impulse and certain explanations of why and how. We need explanations but also to know where we stand compared to the other companies. It was important he was there not to be panic-stricken” Manager, bodyshop

Beyond general statutory knowledge, the adviser brings an external and global glance on the company.

“You cannot be a judge and part of your company. Insofar as he (the advisor) has made an analysis in which there are things you know but he sees them from an external point of view. They have the value that you grant them, but nevertheless even if it is not your vision, it has a value because it comes from someone else”. Manager of a company of electronic.

Here are expressed both a need to look at things in a new light as well as a comprehensive understanding of the enterprises. When the synthesis appears severe for a good number of companies the adviser helps the company to place itself in relation to the requirements and correct nonconformities.

- The appropriation of the results by the companies

The spreading of the results within the company after the advisor’s restitution presents some contrasts according to the companies.

Although this is not systematic, the results of the audit have known a wider spreading within the companies which have a health and safety committee. Compliance to the standards is in this case seen as a dynamic process.
“The restitution was important because that allowed us to identify the most important working tracks, what were the gaps we had in terms of safety compared to the employment regulations and try to find a solution to bridge them. (…) the results are what they are but we didn’t know how to express them. We are not ashamed because we’re working on it, we improve and get better” Human ressources manager, pharmacy.

The companies without staff representatives have a more confidential vision of the results which goes through a phase of reappropriation of the audit and an organization of the priorities. The audit remains confined on the level of the manager and of a his/her close assistants.

As a whole the companies reacted quickly to the results of the audit.

“Well, our priority now is to implement all the recommendatons. I’ve already made about ten corrective notes since the advisor’s restitution, simple little things we have set up. We are now well aware of these recommendations and the thing is to implement them all. Well, sometimes there are things which are...er, where the annotation is a little bit restrictive because points of minor interest are dealt with the same way as are important matters...we have to sort through them.” Manager agroalimentary sector.

- Operationalization of prevention

Another issue which is raised is the one of the operationalization of prevention, i.e. how to go from statutory compliance to the implementation of preventive measures.

The bigger the size of the enterprise is, the more the manager admits that compliance with the regulation is a means to improve health and safety. This approach is different for the small companies which highlight the difficulty in applying a regulation which does not take into account their specificities in terms of size and financial resources.

Whatever the attitude, the question raised is that of the perpetuation of prevention as well as the human resources assigned to it.

Concerning the perpetuation of prevention it is related on the one hand to the frequency the company will be diagnosed and on the other hand to the passage from statutory compliance to practical experience..

As for the competences required for the operatinalization of prevention program which have been defined, the answers the managers have brought along are certainly diverse but all highlight the importance of the share of competences within the enterprise between the humain ressources, the production department and maintenace.
It is thus not rare to see the manager and the person in charge of maintenance or the site foreman and the administrative assistant to collaborate at the time of the realization of the audit. This collaboration during the audit can precede a possible system of actors for the operationalization of prevention. It however differs according to the companies particularly concerning practical experience.

Some of the interviews reveal that the managers have a very hierarchical vision of the person who must be associated with the prevention of the risks. The department managers are sometimes mentioned although this level of responsibility does not suit the function (Berthelette and Planchet, 1994).

The great majority of the companies presents this profile. OHS matters are delegated most of the time to the assistant the manager has entrusted with the job because of his/her technical competences. Only the family companies are marked by a more important presence of the manager on the matter.

The qualitative analysis of this interviews was thus at the origin of the emergence of new categories which explain the determining factors which made the enterprises get involved in a collective preventive action scheme.

The first motivation is a concern, a fear of a weakening of the company at a stage which is generally a crisis period of change or metamorphosis of the company according to the analysis that is given (Couteret, 1996; Torres, 1999).

The effectiveness of the action is a crucial point. It is measured through the time spent in a logic of optimization of the cost (time) which excludes the formats which exceed half a day.

The existence of an actor relay is all the more fundamental as this actor is not dependant on a branch of industry. The chambers of commerce are for this reason neutral actors from the managers’ point of view of the leaders. The involvement of an actor relay is however insufficient. The actor relay guarantees the competences of the expert in the implementation of a methodology which allows the managers benefit from an external point of view on the company.

This external point of view is a triggering event which prompts a training to an overall statutory compliance and adaptable to the company.

The knowledge generated by the audit must be appropriable by the leader. This latter one is free to decide of the spreading or not of the results, to set up a plan for action or improve
compliance according to a priorisation of the actions fixed during the board of directors and with the help of their assistant.

Finally, the results of the action must be made use of. This last point meet he perenniality of the preventive actions which according to the managers must lead to the operationnalisation of the prevention.

**Conclusion**

The implementation of a device of this type rests on the assumption that the collective action was the most adapted action to reach effectively SMEs but also on the assumption that the statutory pressure is a fundamental element of the performance of the companies in OHS matters. Necessary although not suffisant condition to improve the level of prevention. It is a non suffisant condition since the fear of the sanction is not significant enough to make the manager aware of the issue and prompt him/her to undertake preventive actions. This is the reason why the device should have therefore relied on a relationship of trust between the OHS advisors and the managers. The software tool ensured thus the impartiality of the advisor who concentrated his/her efforts on a pedagogical approach adapted to the audited manager.

The assessment of the study shows an interest for the various partners of the collective action. For the companies the opportunity of having a global approach of their OHS regulation compliance. For the institutional of prevention a better knowledge of the state of compliance of the small companies. For the OHS advisors a possibility of a better knowledge and understanding of the culture of these companies thanks to the relationship they have established with the managers.

On the whole, what is revealed is that this pilot project allowed to reach the companies and to provide them tools and methods.

The reproductibility of the action is nevertheless hampered by a great number of limits. The first one is the financing. The participation requested from the companies was low considering the real cost of the action. According to the OHS advisors, had the market price be applied to the cost of the action scheme, it would have represented a hindrance to the involvement of the enterprises to the plan.

The program rested on the existence of an actor relay, which supposes that this latter one is ready to carry out regularly programmes of this type. However the OHS issue raises the problem of the responsability of the actor relay in the event of an accident. Providing this type
of diagnosis in the long term may represent a risk factor for the organization which carries out
the action.
Eventually is raised the question of the passage to the statutory compliance in itself. Is an
action based on an audit about OHS regulation compliance sufficient to implement long
lasting risk preventive action within the company?
The analysis of the interviews have revealed new relations between a real concern of the
managers and the decision to get involved into the preventive action scheme. Far from
deliberately not acting in compliance with the regulations and taking risks to answer a logic of
profit, the managers seem rather anxious and resourceless vis-à-vis the offer of prevention
whether institutional or private.
Finally as it has been highlighted in the international surveys, the perenniality of the
preventive action is an essential point. Preventive action cannot be sufficient in itself and must
take form of a prevention plan allowing the company on the matter to evolve. The main issue
is therefore the operationalization of prevention taking into account the characteristics of
SMEs.

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WS6.1-2 Abstract:

‘How to prevent something, we don’t know will happen? Risk evaluation and calculation for accidents in SME’s’
by Kirsten Joergensen, Associate professor & Nijs J.Duijm, Senior researcher, Technical University Denmark DTU, Denmark
Hanne Troen, Safety Consultant, Kemirisk, Denmark

Problem: After the accident has happened, everyone thinks to know what should have been done to prevent it, but beforehand it is an incredible difficult task.

Goal: Over the last 5 years, a Dutch project has developed a risk assessment model of occupational accidents, based on an analysis of over 10,000 serious accidents in the Netherlands, together with a comprehensive assessment of exposures. In Denmark we performed a project in which we developed a method to observe and document the activities and risk in small enterprises, on the basis of the Dutch study.

Method: The co-operation between the Dutch and Danish projects has resulted in a very useful web-based risk assessment tool, which towards June 2009 will be accessible in Dutch, English and Danish. The method has been tested in the Danish project in a series of small enterprises covering observations of about 120 man-days. These observations made clear, that keeping up barriers against accidents only partly can be managed by the employer. Especially in enterprises with employees normally working outside the establishment, the daily safety assessment need to be assigned to the individual employee, and he/she has to perform this safety assessment ad hoc, responding to frequent changes in his/her working conditions.

Results: The results of the Danish project is an application of the Dutch findings to describe what risks and safety barriers are most important for small enterprises in some industry sectors and jobs. Based on this knowledge, we can formulate requirements for, 1) what can and should the employer take care of; 2) what essential instructions and training should the employees receive; and 3) which specific considerations should the employee always have before starting on a task.

Discussion: Even though this project provides the opportunity to calculate the real occupational accident risk and to identify the most relevant safety barriers, it is questionable whether this will change anything at all for a single person. The question is how to disseminate this new knowledge, how to arrive at an understanding, and how to get it applied in real life. This challenge is still open.
PREVENTION OF ACCIDENTS IN SME’S

How do you prevent something you don’t know will happen?

Kirsten Jørgensen¹, Nijs Jan Duijm², Hanne Troen³

Abstract

When the accident has happened, everyone seems to know what should have been done to prevent it, but knowing how to prevent it beforehand is an incredible difficult task. During the past 5 years, a Dutch project has developed a risk assessment model for occupational accidents, based on an analysis of more than 10,000 serious accidents in the Netherlands, along with a comprehensive assessment of exposures. For the exposure assessment, data was collected on how often and how long workers perform certain actions and how the way they did it could be linked to the accident analysis. This for the first time ever makes it possible to determine the real risk of ordinary occupational accidents with respect to fatality, permanent and serious injury. This can be done at the level of industry sectors and type of job, as well as for any kind of job or activity. In Denmark we created a project in which we developed a method to observe and document the activities and risks in small enterprises, on the basis of the Dutch study. The co-operation between the Dutch and Danish projects has resulted in a very useful web-based risk assessment tool, which towards June 2009 will be accessible in Dutch, English and Danish. This tool can be used to obtain information, for both industry sectors as well as individual jobs, on real occupational risks divided into 64 categories, along with those safety barriers that are most effective to prevent accidents. The method has been tested in the Danish project in a series of small enterprises covering observations of about 120 man-days. These observations demonstrated that maintaining barriers against accidents can only partly be managed by the employer. Especially in enterprises with employees normally working outside the establishment, the daily safety assessment needs to be assigned to the individual employee, and he/she has to do this safety assessment ad hoc, responding to frequent changes in his/her working conditions.

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This is especially the case for jobs in building and construction, but also in many other enterprises with service or sales activities. The results of the Danish project is an application of the Dutch findings to describe what risks and safety barriers are most important for small enterprises in some industry sectors and jobs. Based on this knowledge, we can formulate requirements for, 1) what can and should the employer take care of; 2) what essential instructions and training should the employees receive; and 3) which specific considerations should the employee always have before starting an assignment. Even though this project provides the opportunity to calculate the real occupational accident risk and to identify the most relevant safety barriers, it is questionable whether this will change anything at all for a single person. There will probably be very few people from SMEs that will perform calculations or will look for this information. The question is how to disseminate this new knowledge, how to arrive at an understanding, and how to get apply it to real life. This challenge persists.

**Background**

About 178,000 enterprises with employees are registered in Denmark, as well as 121,000 one-man enterprises. Amongst those enterprises with employees, 85% have less than 20 employees, 10% have between 20 and 50 employees, 3% have between 50 and 100 employees, and only 2% have more than 100 employees\(^4\). This means that the safety efforts aimed at general risks should be targeted at small enterprises. Small enterprises often have, considering their operations, a large potential for action and a good ability to adapt to changes in the conditions of daily life (Hasle & Limborg, 2004), which also is the advantage that makes them able to be very flexible in their management of tasks and thus warrants their existence in the labour market. The owner/manager in many cases is also the founder and “father” of the product as well as the structure of the enterprise. That is why his conception of product quality, precision, tempo, order and norms are the basis of the safety culture of the entire enterprise (Hasle & Limborg, 2004). Therefore, it is still the case that safety begins from the manager and whether he decides that safety should be an important parameter in his enterprise, regardless of whether the enterprise is big or small. Safety initiatives in small enterprises based on participants have been successful in several Asian countries, which on the face of it seem to be of a general nature (Kogi, 2006). Other initiatives that are supported are for example the German

\(^4\) Danmarks Statistikbank, "Erhversstatistikken for 2007"
“Employer Model” (Eichendorf, 2001) and the Danish project “Control of Order and Safety” (Hasle & Limborg, 2004). The first problem one encounters with regards to enhancing safety in small enterprises is the difficulty to create an understanding and insight in smaller employers that they should prioritise safety, because their own experiences are that accidents do not occur and that it is going well (Walters 2001). But when and if the manager decides that safety should be a priority he needs access to easily available information on what risks he should focus on and how he should act accordingly (Kogi, 2006, Halse et al, 2009). He generally has no energy, knowledge or base of experience for seeking knowledge in several locations and has no resources or people to help him within the framework of the enterprise to manage a safety function. At the same time, he needs his employees to be able function independently, i.e. that they during their basic training have gained an insight on how to work safely, as well as knowing how to plan their work (Vickers et al, 2003, Eakin et al, 1998). Surveys show in this context that many smaller employers find it difficult to convince their employees that safety is crucial and that they must observe risk and act reasonably in regards to safety (Vickers et al, 2003). They consider it too difficult to supervise, because they cannot be where their employees work all the time. This is especially the case in the trades where the work tasks are done away from a home address, such as construction and contracting, transportation and agriculture. It can be helpful for both parties to have a tool for seeing risks and observing barriers, as well as being aware of necessary provisions and measures. It must be easily available as there are few resources for considering anything but the task at hand. The goal should be to achieve skills in the employees that make the way in which he/she considers how a task is done fully integrated with doing it safely. This demands a general understanding of tasks and the job. In the many tasks and jobs that take place away from the home address of an enterprise, meaning geographical locations other than where the employer has an office, there are distinct requirements for the employees to each day consider new surroundings and new work conditions (Jørgensen et al, 2008). In the small enterprises the worksite can change on a daily basis and possibly even several times each day. It is not physically possible for an employer to visit all such worksites and assess the safety there. In such cases he must be able to trust that the employee is able to do this himself, while also attending to customer commitments. The independence and self-management with regards to work safety therefore becomes particularly necessary for employees in many small enterprises. It demands of both
the employer and employee that they have considered the safety standards and how the employee should act, that the basis from the home enterprise is acceptable with regards to equipment, tools, instruction, time and work preparation and that the employee has been told how to act, what to be aware of and what his general behaviour should be like.

**Theory**
The analysis of accidents is an analysis in hindsight as it is done after the accident has happened. The accident analysis can show several direct and indirect causes where to a large extent it is the fact that the causes occur simultaneously that makes the accident happen, rather than the presence of one single cause (Rasmussen, 1997, Jørgensen, 2002). But exactly the fact that a single cause not necessarily leads to an accident, but only when other causes occur at the same time, makes it difficult to point to the actual “culprit” and makes it hard to perceive causes, which in one situation mean nothing and are crucial for a different accident to happen.

Perhaps that is the reason why man’s actions and choices come under scrutiny when an accident has to be explained and the “cause” located. There has been focused a lot on human errors and mistakes, where a differentiation is made between conscious mistakes and unconscious, as well as between errors in the workmanship, errors in the memory, wrong choice of method, misunderstandings and lack of knowledge (Rasmussen, 1987, Reason, 1977) This perception of the different ways in which humans are mistaken and act erroneously have been seen in a framework of explanations and conditions for why people make mistakes due to the situation and context (Reason 1997). Organisation, decisions and work conditions affect partly what risks are present, but also if the necessary barriers to prevent risks leading to accidents are present (Reason 1997).

This brings us to consider the risk understanding and risk perception as important elements for man’s possibility of acknowledging risks and knowing what dangers they hold and what consequences an accident can have. Basically, man is not particularly good at, or has the possibility of, assessing his own risk (Lin et al, 2007). Some risks are assessed too high and some too low, and it seems that many other factors in our lives and surroundings affect what we understand and acknowledge. This occasionally has the effect of us misunderstanding a situation or simply being mistaken with regards to an accident as a consequence (Lin et al, 2007). It is crucial to gain an understanding and acceptance of the paradox that one does not understand an accident and its causes till after the accident has happened, but that it must be
prevented before it happens. Quite often, accident preventive initiatives in enterprises are to investigate the accidents that happen, and to then act on the concrete causes as evidenced by the investigation. But this kind of reaction has turned out to have a limited effect and over time practically none at all (Krause, 1995). A far better preventive effort is achieved when management makes a decision of wanting a higher degree of safety and a more specifically targeted effect of the safety efforts. It is even better if the management is able to create a culture within the enterprise of having the employees participate in creating a continuous improvement of safety (Krause, 1995, Glendon et al, 2007, Flin and Yule, 2004).

The knowledge about risks and causes of accidents needed in such a process must be gathered from surveys and analyses of the many accidents, but in a way in which you can gather from it the generically fundamental causes of the accidents happening, as well as generic provisions, i.e. barriers that can prevent risks from becoming accidents. But the usage of that generic knowledge is crucial for the desired results to be achieved (Krause, 1995, Hollnagel, 1999, Hale & Guldenmund, 2003).

The risks commonly focused on specifically are those that could result in very serious consequences if they develop into an accident. Especially the spectacular risks of many people simultaneously being exposed to risks have been focused on and of course for good reason (Lin et al, 2007). But the fact is also that the so-called banal though more normal types of accidents are very frequent and can have serious consequences for the individual person (Jørgensen, 2008). Far more people die because of such common risks than do because of what is often characterized as “high-risk” areas. This is a great challenge with regards to doing something about these common risks, rather than neglecting the risks focused on presently (Jørgensen, 2008).

Three types of instruments management can use in a proactive prevention strategy will be highlighted in the following: 1) The technical and organizational barriers designated to prevent accidents from happening. 2) The situation-specific awareness to be created in people, giving them the possibility of making the correct choice. 3) A method of gathering and spreading knowledge about risks and their barriers through so-called “message maps.”

With regards to the barriers, a differentiation can be made between active and passive barriers, where active ones demand an active action from people to function, while the passive ones function by their presence alone. The barriers can be further split up into those that seem preventive, those that protect and those that reduce the damage. The preventive barriers
ensure that no incidents that can lead to accidents will occur, while the protective barriers ensure that no harm will be done, even if an incident occurs and the limiting barriers contribute to minimizing damage (Hollnagel, 1999). Furthermore, it can be useful to divide barriers up into technical barriers, behaviour-influencing barriers and combinations of these (Hale & Guldenmund, 2003).

The situation-specific awareness can be defined as: “the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of their status in the near future” (Endsley, 2000). If you do not understand what the objective of the individual person is in a given situation, the information in the environment will carry no meaning. Added to this is that presupposition and expectation influence the situation-specific awareness (Endsley, 2000). Actually, people must rather act from whatever holds the direct information in the situation. They must be able to combine information and imagine incidents that affect what their experiences are based on. They must be proactive, not merely reactive. They must act from objectives and be able to do so with a certain automatic and knowledgeable behaviour (Endsley, 2000).

A tool for creating an overview of barriers as well as risks and appropriate actions, and thus heightening the situation-specific awareness, is the development of message maps (Flin et al, 2006). Message maps have been developed to create an overview of which users of information need what information, which then enables the individual persons to take decisions by themselves and act according to their own needs. Furthermore, message maps can be used as a mean for creating a situation-specific awareness, in a decision-making process as well as in communication and cooperation, including establishing in what way managers can support this process (Lin & Petersen, 2007, Flin et al, 2006).

These tools can be used in connection with proactive accident prevention by those small enterprises if they are targeted at the accident risks that are tangibly present. There are methods for creating greater likelihood of the situation-specific awareness being correct and that there will be acted appropriately, such as knowing what observations to be aware of, what barriers need to be present for everything to progress properly and what actions are required if the conditions are not as they should be. This is not meant to remove the proactive prevention from managerial responsibility, but on the contrary to support the managerial responsibility with concrete tools, especially useful for small enterprises.
Methods

In 2003, a big Dutch project called WORM was initiated by the Dutch Ministry of Social Affairs and Employment. WORM is an abbreviation of Workgroup on the Occupational Risk Model and was meant to develop a basis for calculating the risk of work accidents in any task within the world of work. The background of the project was the work with “I-RISK – A quantified integrated technical and management risk control and monitoring methodology,” which was the result of a European research project concluded in 2000 (European Commission, 2000). The I-Risk methodology was created for use in high-risk areas and based on assessing risks from dangerous chemicals in processing plants. The objective was to be able to prevent big accidents involving dangerous chemicals and to limit the consequences, should such an accident occur. The WORM project had a similar objective for work accidents, namely to develop a method and an electronic program to support a management in the decision making process towards preventing work accidents (Ale B., 2006, WORM Metamorphosis Consortium, 2008).

The basic model for WORM is a bowtie model (butterfly model), which is a model combined of fault tree analysis and a cause-and-effect analysis, see Figure 7. The bowtie model is build around a center event. The choice of center event is critical to the analysis as any unwanted incident can be a center event, where the analyses of causes as well as consequences start from. Actually, different types of unwanted incidents can be perceived as being either causes or effects, entirely dependent on where the center event is placed. However, as soon as you have established the center event the description of causes and effects will solely have to do with the center event in question.

![The bowtie model](image)

Figure 7 - General lay-out of a Bowtie description
A bowtie analysis is in principle only a description of event chains leading up to the center event in question, and illustrates the possible effects of that particular center event. By combining the analyses with traditional fault tree analyses and cause-and-effect analyses one can identify barriers that have been missing or not working for each and every link in the event chains.

Prevention of accidents is in principle about avoiding or minimizing the effects of center events, but to achieve this goal, preventive action must be aimed at making sure the barriers are present and functional. This means that a management prioritization starts from the far right hand side of the model and has its room for action in the far left hand side of the model. What the butterfly model does is to create the image and coherence between these poles. The philosophy of the WORM project is that as soon as an image of these contexts has been created it will be possible to calculate the risk and determine what preventive initiatives would be most appropriate to do in order to lower the risk.

The WORM project developed 64 butterflies based on analyses of more than 9,000 accidents with either serious or fatal consequences. The analyses have been made through a “storybuilder” method, which will be described in section 4.2. The butterfly model thus creates coherence between the occurrence of certain causes and the likelihood of certain consequences. In the WORM project three types of final consequences have been calculated with: 1) Death; 2) Invalidities; 3) Serious, but curable injuries. The utilized data concerns work accidents that have led to hospitalization. The right hand side of the butterfly analysis then comprises the consequential process, which the given center event lead to, including the conditions that could contribute to increasing or limiting the seriousness of the injury. The safety barriers found on the right hand side are the so-called protective barriers that prevent or minimize the injury of a given central event. The left hand side of the butterfly analyses comprises all cause chains that influence the occurrence of the central event. The safety barriers here are the preventive barriers meant to prevent the central event from happening. In WORM an understanding has evolved of the fact that both primary safety barriers (PSB) and supportive safety barriers (SSB) exist. What is more, all these safety barriers can be tied to information (PUMMs) on them about whether they are: 1) Provided, 2) Used, 3) Maintained or 4) Monitored. The safety barriers can be examined further for how the organisation deals with the barriers in relation to procedures/rules, equipment/tools, availability, qualifications/training, communication/knowledge, motivation/commitment and conflict resolution.
A crucial element of the analyses in “storybuilds” and subsequent bowties is what safety barriers have failed and hence has caused accidents. In some cases the safety barriers are easy to assess while they in other cases need more detailed information. Furthermore, it is necessary not merely to identify the safety barriers, but to also examine what qualities they have and what factors affect this. The factors that affect the quality of the safety barriers and thus influence the likelihood of an accident occurring has been termed Probability Influencing Entities (PIEs) meaning factors that can influence the likelihood of failure of a safety barrier. The idea is that if PIEs are entirely in order then the safety barriers will be as well and the risk of an accident happening is therefore low, while if the PIEs are lacking, not in order or present, the safety barrier will be bad and the risk of an accident happening will be high. Part of the Danish project has been to develop an easy-to-use tool for helping an enterprise register what activities the different tasks are comprised of, including what risks are innate to the tasks, as well as what condition necessary barriers are in during the execution of the activities. The tool is a program installed on a PDA which means that you simultaneously can register time usage, activities, risks and barriers. This knowledge can later be entered into the Dutch WORM program for calculating the real risks of respectively death, invalidity and other serious injuries.

The objective of the Danish project, however, is to make it easy for small enterprises to gain control of safety. A combination of activities in a trade of how the tasks are being done and a use of the Dutch data, including the knowledge of barriers and PIEs for concrete risks, makes up a good basis for creating objective-specific message maps for concrete trades. Thus, an opportunity is created for being very specific on what is important for the small enterprises to focus on, what the employees should learn and know, namely how to assess risks in their daily, often very diverse, work process.

Results

Classification of activities

The first result of the DanWorm project came when we were planning observations at the small enterprises. As we attempted to make registration simple, we discovered that it is possible to classify the 64 hazardous activities into three levels. The “zero” level consists of 4 groups as a main entry to all kinds of hazardous activity. Table 1 shows this essential entry to hazardous activities.
Table 11 “Zero” level of classification of activities to be registered.

<table>
<thead>
<tr>
<th>Level 0</th>
<th>Level 1</th>
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<tbody>
<tr>
<td>A. The surface on which you move/work - concerns the risk of falling</td>
<td>Placement ladder 01.1.1.1</td>
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<tr>
<td>B. Conditions at the work place - concerns your surroundings where there is a risk of being hit or hitting something, being hit by collapsing or falling objects, flying objects or similar</td>
<td>Fixed ladder 01.1.1.2</td>
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<td>Step ladder or steps 01.1.1.3</td>
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<td></td>
<td>Rope ladder 01.1.1.4</td>
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<td>Mobile scaffold 01.1.2.1</td>
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<td>Fixed scaffold 01.1.2.2</td>
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<td>(De)-installing scaffold 01.1.2.3</td>
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<td>Roof 01.1.3.1</td>
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<td>Floor with different levels 01.1.3.2</td>
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<td>Fixed platform 01.1.3.3</td>
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<td>Mobile platform 01.1.5.1</td>
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<td>Non-moving vehicle 01.1.5.2</td>
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<td>Other 01.1.5.3</td>
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<td>C. What you are working with – concerns the risk of being cut (sharp edges), jammed, crushed, injured by moving tools or chemicals etc.</td>
<td>Working near hole in ground 01.1.4</td>
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<td>Walking on floor, 01.2</td>
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<td>Walking on stairs 01.3</td>
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<td>Walking and overloading 25.2</td>
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<td>D. Special dangers - concerns very specific and infrequent high risks like fire, explosion, drowning, poisoning etc.</td>
<td>Cranes and loads 3.1</td>
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<td>Mechanical lifting 3.2</td>
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<td>Loadings on vehicle 3.3</td>
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<td>Manual handling 3.4</td>
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<td>Other ex stored objects 3.5</td>
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Each of these main classifications have 2 – 5 subgroups, which then again have 2- 8 specific “hazardous activities” closely related to the specific 64 bowties in the ORM system (WORM Metamorphosis Consortium, 2008).

Table 12 Full classification of the hazardous activities in order to structure the observation and registration of these activities.

<table>
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<th>Level 0</th>
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<tr>
<td>A. The surface on which you move/work</td>
<td>Placement ladder 01.1.1.1</td>
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<td>Walking and overloading 25.2</td>
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<td>3. Working where objects can fall down</td>
<td>Cranes and loads 3.1</td>
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<td>Mechanical lifting 3.2</td>
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<td>4. Working where objects can be flying around you</td>
<td>Flying objects from machine or hand tool 4.1</td>
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<td>Level 0</td>
<td>Level 1</td>
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</tbody>
</table>

Table 12 shows the full classification system of the 64 hazardous activities. For each hazardous activity, the safety barriers are identified as primary and support barriers. Furthermore the PIEs are identified for each barrier. An assessment of the risk thus is connected to an assessment of the conditions describing how good the barriers are for the activity in question.

Table 13 provides an example of the safety barriers to “fall from height – placement ladder” and their PIE questions.

### Table 13 Example of the assessment of the criteria that affect the probability of accidents, in this case working/standing/climbing on a placement ladder (WORM Metamorphosis Consortium, 2008).

<table>
<thead>
<tr>
<th>Activity hazardous</th>
<th>Primary safety barriers</th>
<th>Support safety barriers</th>
<th>Evaluation criteria – PIE’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work at placement ladders/ Risk of falling</td>
<td>1. The ladder strength</td>
<td>1. The type of ladder and the strength</td>
<td>Conditions of ladder steps</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inspection of ladder capacity and length</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Maintenance and storage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cleaning</td>
</tr>
<tr>
<td></td>
<td>2. The ladder stability</td>
<td>2. The placement and protection of the ladder</td>
<td>Placement on the ground</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Placement at the top, angle</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Protection against traffic</td>
</tr>
<tr>
<td></td>
<td>3. The user stability</td>
<td>3. The ability of the user to stay on the ladder</td>
<td>Position on the ladder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Personal condition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Use of both hands to hold onto the ladder</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>External forces influence</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Appropriate movements</td>
</tr>
</tbody>
</table>

The DanWORM project developed a tool for doing the observations in real life activities with the purpose of making it easy for the enterprise to collect the necessary information about the jobs, activities, safety barriers and PIEs. This tool was created as a program to be used on a PDA with a step-by-step procedure to lead the observer through the decisions that must be
made. Figure 8 shows one example of the screen on the PDA, for the evaluation of the barriers.

![Figure 8 Example of the PDA interface selecting an activity to be recorded and afterward when selecting the status of the Probability Influencing Entities (PIEs)](image)

The first screen of Figure 8 shows in an example of the PDA interface when selecting an activity to be recorded. The selected activity “working on roof” belongs to group A (Surface on which you walk/work), Subgroup 1 (Working at height/fall). Within this subgroup there are eight possible actions. The second screen of Figure 8 shows in an example of the PDA interface selecting an activity to be recorded and afterwards when selecting the status of the Probability Influencing Entities (PIEs) that affect the quality of the Secondary Support Barrier (SBB): “Capacity to keep balance” for the activity “working on roof” (cf. Table 13). There are eight PIEs for this barrier. Each of the PIEs can be given the status “correct” or “faulty” for each recording of an activity.

The PDA application transpired to be very easy to use for a person accustomed to IT. It has been easy to record the observations even when the activities and barriers change quickly for shorter or longer periods. The next step will be to let new untrained persons use the tool and then to receive their feedback.

We note that, though it is not difficult to use the tool or to make the observations, it is difficult to fully understand what to look for and to gain an overview of the many details. We conclude therefore, that the observations still require certain knowledge of safety and health issues. The observations must cover the entire work day and also include those activities that are not normally considered to be especially hazardous.

We must also realize that it is time-consuming to follow people around for several work days. One could of course ask people what they do and how, as was done in the Dutch survey to
find data on the exposure. But our experience is that the observed persons do not really know themselves. They find that they do many different things which change all the time. Even when we ask them how much time they spend on the main tasks in a year, their answers can be very vague.

One set of observations was carried out for carpenters engaged in construction and maintenance of small residential buildings. The other set was carried out for real estate caretakers. The occupations were chosen on account of their generally high rate of injury. We found that these jobs are characterized by the fact that the work situations and work conditions change from day to day and hence are unpredictable. The attitudes towards safety and health in the enterprises involved in this project are very similar to what we gathered from other research results. The employees do not recognize the risks they are exposed to; doing the job is their first priority; and the employer expects them to look after themselves. On the other hand, the enterprises that actually agree to participate show an interest in safety issues and want to learn how to prevent injury. They ask questions about safety and health issues and are willing to take good advice.

Workplace assessments
A second result of the observations and the interviews can be illustrated by the workplace assessment of the carpenter enterprise. Because the work varies a great deal it makes sense to divide the workplace assessment into two parts: a general part that covers general risks and preventive actions where the employer has to initiate accident prevention; and a second part that covers the risks which the employee has to be aware of before he starts on a new task. It is impossible for an employer of such a small enterprise to make a full risk assessment of every single one of the new task his employees have to do. Of course he can make demands and give instructions, as well as provide the tools and equipment that the employees need to work safely, and he can inspect and control the work that has to be done.

The first general risk assessment for a small carpenter enterprise contains a proposal for a plan for safety and health, and recommends procedures and equipment for:

1. Cleaning tools, machines, vehicles, workplaces
2. Hoisting of materials
3. Placement of electrical wire
4. Placement of handheld tools, when not used, in storage or under transport
5. Maintenance of tools and machines
6. Safety equipment for limiting exposure to dust
7. Safety gardening on machines
8. Working with windows or glass materials
9. The availability of personal safety equipment
10. The use of mobile telephones during transport

The second risk assessment targets the employees and contains a one-page and 10-point risk-awareness program to be ticked off. This takes just a couple of minutes when the employee begins a new task. The 10 points are the following:

1. Safety at scaffolding: check the railing, the floor, the cleaning, the distance between the scaffolding and the house, the manhole and evaluate the risk of falling in relation to your own well-being.
2. Safety at ladders: check the maintenance, the stability, the strength, the length, the firmness of the ladder’s footing and evaluate the risk of falling in relation to your own well-being.
3. Safety when working on a roof or at heights: check the railings, the floor, fall resistance, the surface strength and evaluate the risk of falling in relation to your own well-being.
4. Safety at tools and machines: check the safety guards, maintenance, the placement of materials, and the placement of electrical wire.
5. Personal safety protection: evaluate the needs and the availabilities.
6. Safety in manual handling: check for heavy lifting, the need for hoisting equipment, the right lifting technique, the use of equipment such as a platform or small stepladder to ensure a good working position,
7. Safety wherever you are walking: check the cleaning, the maintenance of the main road, the placement of materials, waste, wires, tools etc.
8. Safety in handling waste and waste removal: check the need for personal safety equipment.
9. Safety in transport both at the site and in the traffic: check the traffic behavior, the maintenance and cleaning of the vehicle.
10. Be conscious of acute risks in the working situation such as:
    - Sharp equipment, risks of being crushed or jammed, risks of being hit or being hit by something, fire risks, chemicals risks, dust risks, explosion risks, risks
of materials collapse or fall, risks of slipping or irregular surfaces, risks of falls in general, risks from other road users.

This list seems to be long, but with some training and everyday use the risk evaluation done by the employee in the concrete work situation becomes practicable and will not take long for the professional carpenter. Most professional carpenters would probably say that they do this all the time. In such cases, the list reminds them to be systematic in their evaluation. For the young carpenter with less experience the list can be a kind of checklist.

The need for both a risk assessment for the enterprise and the employer (as the legislation requires) and a list for the employee’s own daily risk assessment has been very apparent in our observations. It is necessary to train the employees to handle their daily risk situation in a professional way. This does not equal divesting the employer of responsibility, but rather supporting the collaboration between the employer and his employees as well as qualifying the dialogue about working conditions. All risks of accidents can never be eliminated, but one can learn to handle the risk situations in a way that prevents the risks from leading to accidents.

Message maps

The third part of the results is a consequence of the theoretical work and the results mentioned above. The idea was to develop message maps for different risks as a basis for education and training using the information from the safety barriers and PIEs for each hazardous activity. These message maps should be focused on both what the employer should be aware of and what the employee should be aware of.

An example of such message maps is illustrated in Figure 9. It illustrates what a message map for the risk of "being hit by a movable object" could be like.
**Hazard:** Being hit by a movable object.

**Barrier:** Controlling movable objects in the area

<table>
<thead>
<tr>
<th>Gather information</th>
<th>Understand the information</th>
<th>Predict and react</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where are the movable objects in the area?</td>
<td>Assess whether the movements could possibly hit you</td>
<td>Secure movable objects and their movement path</td>
</tr>
<tr>
<td>How do they move?</td>
<td>Assess whether the movements are varied and whether they should be adjusted</td>
<td>Adjust, signal, flag, communicate with your surroundings</td>
</tr>
<tr>
<td>Can their movement become uncontrollable?</td>
<td>Assess what could make the movements uncontrollable</td>
<td>Check the security devices and information to the surroundings</td>
</tr>
<tr>
<td>Can I be in the object’s movement path?</td>
<td>Assess how I should act to not be caught in the object’s movement path</td>
<td>Adjust your own behaviour</td>
</tr>
</tbody>
</table>

*Figure 9 Example of a message map.*

The simplest way for a small enterprise would be to start from its jobs’ specifications of what risks are important and then at least secure against these dangers. The individual enterprise, though, can also make its own assessments that can be either the simplest one, namely asking the employees, or the more complicated one of having a proper analysis done.

**Risk profiles**

During the observations of the carpenters, we recorded what tasks were performed by the carpenters. Those tasks were defined in collaboration with the carpenters so that the tasks were representative and in line with the carpenters’ own perception of their job. The outcome is presented in Figure 10. Using the PDA tool as described above the distribution of hazardous activities within these tasks was described, and by applying the results of the Dutch WORM tool, a typical risk profile for a carpenter (with the tasks as in Figure 10) can be estimated, which is presented in Figure 11. Though risk factors (PIEs) were recorded during the observations, this information is not included in Figure 11 – here it is assumed that the risk factors are similar as those based on the outcomes of the questionnaire investigations of the Dutch work force, which is referred to as the “Dutch National Average”.

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**Figure 10** Allocation of work time to job-specific task for the observed carpenters (hours per week).

**Risk profile of carpenters with observed task distribution**

<table>
<thead>
<tr>
<th>Risk per year</th>
<th>Fatality</th>
<th>Permanent Injury</th>
<th>Recoverable Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>1E-08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1E-07</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1E-06</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1E-05</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1E-04</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1E-03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Risk profile**
- Fall from height - Roof
- Fall from height - Working on mobile scaffold
- Fall from height - Working on fixed scaffold
- In or on moving vehicle with loss of control
- Fall from height - Placement ladder
- Fall from height - Floor
- Fall from height - Moveable platform
- Fall from height - Step ladder or steps
- Struck by moving vehicle
- Fall on same level
- Contact Moving Parts Machine - Clearing
- Fall from height - Hole in ground
- Contact falling object - Crane or load
- Fall down stairs or ramp
- Fall from height - (de-)installing Scaffold
- Fall from height - Fixed ladder
- Contact falling object - Other
- Contact Moving Parts Machine - Operating
- Trapped between
- Fall from height - Other
- Fall from height - Non-moving vehicle
- Contact object carried or used by other person - NOT...
- Contact Moving Parts Machine - Cleaning
- Contact with electricity - Electrical work
- Contact flying object - Blown by wind
- Exposure to hazardous substance without loss of containment
- Contact handheld tool by self
- Contact Moving Parts Machine - Maintaining
- Moving into Object
- Release of hazardous substance out of open containment
- Fall from height - Fixed Platform
- Extreme muscular exertion - moving around
- Extreme muscular exertion - handling objects
- Contact object carried or used by other person - handheld tool
- Contact hot or cold surface or open flame
- Buried by bulk mass
- Contact falling object - Manual Handling

**Figure 11** Risk for carpenters, assuming risk factors (PIEs) to correspond to Dutch National Average.
Summary of results

Figure 12 illustrates the final concept of the DanWORM project. It shows schematically the previously mentioned results. The top half shows the theoretical elements, background knowledge and tools, while the practical results can be summarised to be:

- What questions to ask when assessing the risks of accidents in enterprises
- What the employer must do to enhance the safety standard
- What instructions must be given to the employee
- What the employees must do to enhance the safety standard

Discussion

In the Dutch WORM project and the Danish DanWORM project, respectively, basic data for knowledge about risk of accidents in work sites and for assessments of this have been collected and investigated. The material, however, is still difficult to assess and difficult to put to practicable use. Therefore more development of methods to utilize this comprehensive data is needed. The Danish project has ensured that all tools and data are available in Danish and it has contributed to the possibility of making it accessible in other languages.
Furthermore, a simple three-step-level-classification has been found, cf. Table 11, which has turned out to be exceptionally suitable for risk observations and analyses. It has also been obvious in the Danish observation that it is necessary to separate: what is to be expected of an employer to handle; what should be ensured have been taught and instructed; and finally what the individual employee himself must take care of to achieve a higher level of safety. This is supported by several other research results that indicate that it is not until safety is prioritized and created in cooperation between both employer and employee that a low risk of accidents is achieved continually.

The proactive prevention can then be assisted by tools such as message maps that can be part of the empirical data, which must be the centre of the proactive prevention. How to transfer these results to both small and large enterprises afterwards is still not determined. This leaves a key question not answered by this project. In the small enterprises especially, there is not much awareness or interest in the safety problem, and they themselves declare that they are doing fine, and actually do not have time to do other tasks than those provided to them by their clients. The ensuing implementation therefore relies on communication.

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Hale A. & Guldenmund, 2003, ”Barriers and Delivery Systems”, Worm paper,


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WS6.1-3 Abstract:

‘OH&S certification as a tool for managing the effort in small enterprises’
by Kaare Hendriksen, Master of Environmental Management (MEM), Department of Management Engineering, Technical University of Denmark

It is well accepted that different OH&S management systems as e.g. OHSAS 18001 can be helpful to manage the OH&S effort and thereby increase the performance, but it is a general perception that this systems are too complex, costly and complicated for medium sizes and especially small enterprises. However OHSAS 18001 and similar systems can be helpful tools – also for small enterprises. It will be exemplified how a simple and effective system can be structured based on OHSAS 18001 and discussed under which conditions it can contribute to increase the performance.

It is at widespread expectation that an OHSAS 18001 certification ensure a high level of OH&S performance and as minimum compliance with the national OH&S legislation, and the Danish legislation exempt certified enterprises from inspections from the Danish Working Environment Authority except in case of accidents etc. Based on the project Certification of occupational health and safety as tool and strategy in labor inspection, funded by the Nordic Council of Ministers, it will be illustrated that a certification does not ensure a high performance or compliance with legislation.

Whereas the certification bodies during the certification process and yearly audits has focus on the system and evaluate the degree of its implementation based on random samplings, the internal process and involvement of employees can improve the OH&S performance. It will be discussed how it is possible for small enterprises to optimize the internal process and thereby the value of the OH&S management system rather than focusing on the certificate itself.

In a Nordic context where the OH&S legislation is characterized by detailed regulation it can be questioned whether an integration of OH&S management systems in legislation can led to deregulation. The correlation and interaction between OHSAS 18001 and the national legislation will be visualized and problematized furthermore will the preconditions for a positive interaction between legislation and certification be discussed.
Presentations, session WS6.2:
Chair: Nijs Jan Duijm (with Pete Kines)

Time: Wednesday 21 October, 17.15-18.45:
Location: B-10
Abstract:
‘Estimating the risk of work injury among employees of small workplaces in Ontario, Canada’
by Peter Smith, PhD. Scientist, Institute for Work & Health, Toronto, ON, Canada

Small businesses are an important part of the Canadian labour market. In Ontario, Canada’s largest province, 17% of workers are employed in companies with less than 20 employees, with another 18% employed in workplaces with between 20 and 99 employees. Employees in small workplaces may be at increased risk of work injury due to fewer formal occupational health and safety (OH&S) practices, lack of knowledge about OH&S rules, or regulations that are not tailored for the unique environment within small workplaces.

We examined the rate of claims submitted to the Workplace Safety and Insurance Board (WSIB), which covers 65% of the labour force in Ontario, over a nine year period (1998 to 2006), across workplaces of different sizes. Claims can be submitted to the WSIB as either no-lost-time (no time is lost from work other than the day of the injury) or lost-time. Although total claim rates (lost-time and no-lost-time) were similar across workplace sizes, the percentage of claims that required time of work were much higher in small workplaces compared to larger workplaces (37% of claims in workplaces with less than 20 employees compared to approximately 25 – 27% in workplaces with 20 to 99 employees, 100 to 500 employees and 500+ employees).

This resulted in smaller workplaces having a lost-time claim rate over 2.5 times higher than workplaces with 500 or more employees. These differences in the percentage of claims that require time off work may reflect differences in the severity of injuries in small workplaces and/or the ability for smaller workplaces to accommodate injured workers. Due to possible differences in claim reporting practices across firms in this presentation we will also compare these results with data on self-reported absences from work of seven or more days from alternative, non-compensation based, data sources.
WS6.2-2 Abstract:

‘Fishermen’s underestimation of risk’
by Fabienne Knudsen, senior researcher & Sisse Groen, Master of Arts, PhD., Center of Maritime Health and Safety (CMHS), Institute of Public Health, University of Southern Denmark

Background: In order to understand the effect of footwear and flooring on slips, trips and falls, 1st author visited 4 fishing boats. An important spinoff of the study was to get an in situ insight in the way, fishermen perceive risk.

Objectives: The presentation will analyse fishermen’s risk perception, its causes and consequences.

Methods: The first author participated in 3 voyages at sea on fishing vessels (from 1 to 10 days each and from 2 to 4 crewmembers) where interviews and participant observation was undertaken. A 4th fishing boat was visited on dock and the crew interviewed. Based on notes, diary, interviews and photo/video documentation, records related to the fishermen’s risk perception were compiled, and then analysed by means of theories of risk perception.

Results: Fishermen tend partly to underrate the risks they are running, partly to stress the positive potential of risk. This can be explained by several, interrelated factors such as the nature of fishing, it-self a risk-based enterprise; a life-form promoting independency and identification with the enterprise’s pecuniary priorities; working conditions upholding a feeling of exceptionalism and scepticism towards measures and regulations initiated from the outside. Moreover, out of ten factors affecting risk perception, according to D. Ropeik and P. Slovic (e.g. is the risk natural or not, is it new or not, is it outweighted by benefits, is it self-imposed), the majority showed to be highly relevant to the fishermen’s underestimation of risk.

Discussion: To professionals such as fishermen, risk is obviously not only considered as negative, but also as an opportunity. As formulated by sociologist Anthony Giddens, “there can be no question of merely taking a negative attitude towards risk. Risk always needs to be disciplined, but active risk-taking is a core element of a dynamic economy and an innovative society.” The difficult challenge is to contribute to a better environment in fishery by ‘disciplining’ risk in ways that make sense to fishermen and do not contradict their experience. This is not an easy task and the presentation raises more questions than answers, and therefore opens up to discussion.
Paper

Fishermen’s risk perception: underestimation of risk or coping strategies?

Knudsen, F and Grøn, S
Center for Maritime Health and Safety, University of Southern Denmark

As this paper still is under preparation, some sections are incomplete.

1 Introduction

“\textit{I was making coffee in the galley when Paul and Peter came down from the deck. Peter began to tell, short of breath and hectic, that they had just ‘felt they were alive’. Something with a casing and nearly squeezed fingers. ‘What happened exactly? Try to tell more calmly, I asked. But Peter was stopped immediately by Paul: ‘No, no, don’t tell her! Then she ’ll write it all in her computer and there will be lots of troubles out of it!’ I never got more to know about what had happened}” (First author’s fieldwork notes)

This article originates from an immediate puzzlement under and after some voyages at sea on board fishing vessels. Even though the aim of these voyages was limited to study the fishermen’s view on the effects of footwear and flooring on slips, trips and falls, a spinoff of the study was to get an \textit{in situ} insight in the way, fishermen perceived their work and the risks related to it, as well as in the way they perceived a ‘tourist’--the terminology used, at least in Denmark, for anyone on board who is not a fisherman.

It is broadly recognised that “sea fishing is the world’s most dangerous occupation”\cite{1} and nearly every article quoted in this article begin with an enumeration of studies showing the high rate of accidents occurring in the profession. A majority of them also states that danger is an accepted part of the activity of fishing \cite{2,3} or that risk is somewhat neglected and undercommunicated \cite{4} According to Power \cite{5}, it is “largely accepted that certain bodily injury is ‘normal’ and part of the job” (p. 576). At the same time, it seems that implementation of safety measures in fishery is low and difficult to achieve \cite{6,7}. As the introducing quotation testifies, our own experience confirms that risk is not only accepted, but may also be positively connoted (“feeling one is alive”) and that mistrust to outsiders is considerable (“don’t tell her”) - even though the ‘tourist’ in question had been on board the vessel in one
week and felt quite well integrated in the crew, and even though she had no authority or power to take any action.

In this article, we will reflect upon possible reasons for the acceptability of risk in sea fishing theoretically as well as empirically, and the implications it may have for safety actions and interventions. This is no easy task and we do not intend to find definitive answers – we may even raises more questions, and thereby open up to new discussion.

After a brief section on method, we will focus on three salient characteristics of the setting of sea fishing, which we believe are crucial for the fishermen risk perception and attitude to interventions, that is: the risky nature of fishing, the life-mode of small enterprise and the fishermen’s sceptical attitude to outsiders. We will then present our approach to risk perception.

2. Method
In order to understand the effect of footwear and flooring on slips, trips and falls (8) four fishing boats were visited. The first author participated in 3 voyages at sea on fishing vessels where interviews and participant observation was undertaken: a ten 10 days trip on an industry trawler fishing sand eel with a four men crew; a two days trip on a beam trawler fishing shrimps and a one day trip on a set gillnets (trawl) fishing edible fish. These two ships had a two men crew. A fourth fishing boat, a trawler with a three men crew, was visited on dock and the crew interviewed. Based on notes, diary, interviews and photo/video documentation, records related to the fishermen’s risk perception were compiled. Analysing fieldwork notes and diaries, it became obvious that much of it was related not only to the risk of slips, trips and falls, but also to the fishermens’ overall risk perception. Even though the empirical base of this presentation is small, it is noticable that only a few works on fishermen are based on fieldwork, which gives a valuable in situ insight. The empirical findings were then analysed by means of theories of risk perception confronted with empirically based research articles on fishermen’s risk perception and working conditions in countries comparable to Denmark (industrialised countries).
3. Theory

We are inspired by Eric Hollnagel and his colleagues work with resilient engineering, which is a systemic approach to safety research. Morel & Amalberti has written an article about the resilience of fisher skippers, that has been very informing (1). In a mathematical-dialectic perspective we use life-mode analysis, as described by Højrup (11), to describe the specificality of fishermen as compared to other ways of organising daily life. In addition we build our understanding of a fishing vessel as a social setting in which the notions of risk and safety is entangled on the work of Douglas & Wildawsky (9).

4. Three clusters of factors affecting risk – a categorisation of the empirical findings

Ropeik and Slovic argue that there are some factors affecting risk perception which, although being subjective and specific for modernity, seems to be very widespread (10). We use their short article as a frame for the presentation and analysis of the empirical findings despite the fact that it is not theoretically well-grounded, but from the pragmatic viewpoint that the value of a theory is not given a priori, but is determined by its usefulness (11). Many of the 10 items mentioned by Ropeik and Slovic, seem immediately meaningful, applied to the fishermen’s context as described above. We have chosen to retain six of the factors listed and group them in three clusters of related factors.

Man-made or natural risk, old and new risks: the manageability of risk

Ropeik and Sloveik state that we are more aware of man-made risks than of natural ones: “Anthropogenic sources of radiation like nuclear power, mobile phones, or electrical and magnetic fields frequently evoke greater concern than radiation from the sun, which is a vastly greater risk (...) but less worrisome to many because it is natural.” (10) As seen previously the roughness of the sea is an important risk factor at sea. It is not only natural, but also as old as the world, which brings us to the next factor: New risks are more frightening than old ones (ibid.) – here Ropeik and Sloveik mention SARS, a risk which today is outdated by A- influenza. The two factors, old/natural, new/man-made are related by the fact that most natural risks are old, but also because old risks and natural risks obviously look difficult to change, and what you cannot change, you have to accept. To the fishermen, many of the risks encountered as classified as natural, thereby inevitable. Then what may seem as
underreporting of accidents may in some case be due to another conception of what should be classified as accident. ‘Yes, I am all for safety and, knock on wood, I have never experienced an accident, neither has my crew’. So said a skipper on board his vessel. Half a day later, he told about the time where he fell into the water. Later again he told me how he got his fingers squeezed for a long time ago while operating the anchor, and showed me his two deformed fingers. Another one, deckhand, said: “Compared to how dangerous it is, I don’t think there are many accidents”.

Control, choice and trust
Ropeik and Sloveik give the following example of how being in control minimise risk awareness: “Having the wheel in your hand gives you the feeling that you can control what happens. But switch to the passenger seat and you’re a little more nervous because you are no longer in control.” (ibid.) as for choice, “a risk we choose seems less risky than if that risk is imposed on us” (ibid.) control and choice can be considered as two sides of same coin - (the chosen dangers are usually more under control than the imposed ones). The reluctance of the fishermen over external constraints (e.g. regulations) may be explained by a feeling of losing control – a feeling which seems to be justified in some cases: Less than a week after one of the voyage at sea, we got to know through a notice in a fishery periodical that, within a few hours notice, the authorities stopped all sand eel fishing for the season. The ships still at sea had to go back, and the ones ready to leave had to stay home. The life mode of the fishermen and their ideals of independence also explains their stress on being on control

Trust is also important according to Ropeik and Sloveik: the more we trust a person, the less concern we feel about possible risks (ibid.). Trust can be considered ad a transfer of control. What we experienced on board was an enormous trust in one's colleagues – which meant that cooperation often was tacit: “No, we never use walkie-talkie. We use body language “ as a deckhand said, and a mistrust in experts of all kinds was salient.

The Risk-Benefit tradeoff
Risk taking and risk prevention is always the result of a trade off (afvejning) and often a compromise.

Several episodes from our field work show that the trade-off of the fishermen had to do with their economic situation in the final analysis. In one of the ship, new antislapping underlay was laid at the cost of the project. The crew and the skipper was very satisfied, so we asked
the skipper if he would invest in a anti-slippping underlay, if he should pay for it. 'Yes!', he answered without hesitation. But after a pause, he added: If it is required by the authorities ...” One could nearly hear him weigh the pro and contra of this expense. On a shrimp fishing vessel, we got to know that all vessels of this sort had a voluntary agreement about not exceeding a certain kvota and not fishing in the weekend. It sounded as safe principles, but we got to know later on that the reason for this decision was economic: the price of the shrimp would fall if the stores were too full (private conversation)

Even though economy pays a huge role, which is confirmed by other studies, it would be too simple to reduce the ‘benefit’ side of the trade off to it.

Time is also important. One has to be ready to catch fish at any time, as we learnt on board – which means that the speed of the meals was very fast, even if we could sit for hours drinking coffee in the mess after lunch.

Social inclusion (sense of belonging) seems to be crucial too: In the four men trawler, the of the crewmembers often stressed how they shared profit and saw each other more than they saw their own family. The ‘newest’ member of the crew had been working there for 11 years. Bye & Lamvik (4) mention a fisherman who was teased and called ‘dog’ when he used a safety line. Obviously in this case, the safety line is considered as a metaphor for dependency, and the use of it is might result in exclusion from the community.

5. Analysis: Three characteristics of the profession of fishermen

1) Sea fishing, a risky venture

By its very nature, fishing is unpredictable. There are, at least, two kinds of risks which have to be run in the acticity of sea fishing: economical and environmental risk.

Each tour at sea tour is an economically risky venture, and, as the sea fishing system is economically fragile (1;7), fishermen are highly preoccupied by the risk-benefit trade-off. In a highly interesting study based on simulation observation, Morel et al. shows how production goals were decisive in the fishermen’s decision-making: “From the time they left the harbor, the fishermen never gave up on fishing, even in extreme conditions, and regardless of whether or not the catch was good.”(1). When the condition of the sea was very rough, only one
fisherman out of 34, decided to return to port – but it was not because of the weather, but to optimize the sale of his catch, as he figured out that there would be few vessels at the auction (ibid.:10).

The hostile environment of the sea and its unpredictability also contribute to the riskiness of sea fishing – especially when it is combined with a fragile economy, as seen above. Acheson interviewed with 12 fishermen and asked them about which causes they attributed to accidents. Their answers were complex, but the most mentioned category was economic pressure, mentioned by 10. Weather conditions was mentioned by 6, only ‘fate scoring higher (12). Moreover some physical conditions are not easy to controle or improve. For example, the danger of being entangled in gear and rope is difficult to reduce because of the small size of the deck (5).

This unpredictability – of the sea, of the profit, seems to entail some accept of risk (3) Kaplan found that 2/3 of the 22 fishermen he interviewed stated that they were comfortable with the level of risk in their lives (2). Power states that ‘Harvesters in this study largely accepted that certain bodily injury is ‘normal’ and part of the job’(5) :576.

Murray shows that there is more in risk taking than purely economic calculation. In an interview study framed by narrative theory, he shows how most of the fishermen enjoyed their work despite of the dangers (13). “Indeed the very excitement due to theses dangers could be said to contribute to this high level of job satisfaction” (ibid:248) The fisherman’s life, according to Murray, “is one of challenge and independence rather than one of routine and dependence” (ibid.: 249).

2) Small enterprises and a strong self-employed life form

Life-mode theory is a way of analysing differences within a state or society by use of a socio-matherial and dialectic perspective that mainly draws on the work of the philosophers Hegel and Althusser and the linguist Hjemslev. The theory has mainly been advocated by ethnologist Thomas Højrup (14). Højrup argues that within a monocultural state as Denmark several life-modes exist with a fundamentally different way of living and working, each with a set of institutions and organisations promoting their interests. The dominating life-modes are that of salary workers, where life is split between work and leisure time and the career worker, where leisure time is subordinate to work. A life-mode under preassure is that of the
self-employed where work is embodied in life in general, meaning that there is no clear distinction between work and leisure time. When the rules and regulations that governs the work life of a self-employed life-mode such as fishermen originates from a salary worker understanding of life, the regulations tend to counteract with the profound understanding of how life should be for a proper fisherman which mean that the regulations fail to make sense. Most fishermen today are paid workers, maintaining a strong self-employed life-mode. The flexibility of employment forms, modes of organisation and dividing the profit are in fact a way of retaining the core value, which is the freedom and individuality of the self employed life-mode.

3) Experience-based scepticism toward measures initiated from the outside, gap between expert–knowledge and lay–knowledge

In our approach to risk theories, risk perception is context dependent and socially constructed, and therfore one can expect that it is conceived of in different ways for researchers and fishermen. Risk perception can be considered as a form of knowledge (5), and as such it is hard to imagine bigger gap than between expert scientific knowledge, theoretical, explicit, reproducible, and the lay knowledge, practical, experience-based, embodied and tacit (15-17) – which very much applies for fishermen. As pointed by Power, expert knowledge tends to be hegemonic(5); even if the researcher acknowledges the subjectivity of risk, this hegemony may work at a latent level. Lay perception is then seen as misperception(15), making the risk perceived by experts appearing more ‘real’ than lay perception. There may be no wonder then, if fishermen are sceptical to safety solutions proposed or imposed by ‘hegemonic’ experts. There is little doubt that this scepticism is reinforced by the flood of regulations inflicted on them lately. There is no place here to address the relation between safety and regulation, but there seems to be basically the same problem with regulations of all kinds including safety interventions, that they have to be meaningful and compatible with everyday practice to be accepted by the practitioners (2;18;19). Another factor which may affect the perception of outsiders is the strong ties between fishermen, deriving from their particular life-mode as described above. In the name of social acceptability, thus, norms being valid within the community such as freedom or independency may prevale over norms and
regulations externally imposed. The fishermen’s sense of belonging may influence the trade off risk – benefit too.

6. Discussion
Fishing is paradoxically a complex system. Though the procedure of catching a fish is simple at its core, the context is very complex in its net of actors, regulations, organisational forms and historical practices.

We draw on the following to form an understanding of fishermens risk perception.
. From the tradition of safety research, where the approach mainly has been technical and problem-solving in its focus, stems the concept of resilience which especially Hollnagel has contributed to (20). The concept originated from the physical abilities of a body to restore itself, then psychologists adopted the concept to describe a personal quality. In safety science is describes the quality of a system to imagine, manage and survive risks and their possible consequences. An article by Morel & Amalberti investigates resilience by use of an experiment with fisher skippers because they are believed to be experts in resilience due to their their dangerous and unpredictable task (1). Morel & Amalberti state that ‘The activities and professions most frequently exposed to unexpected, critical unbalancing situations are those in which the greatest risks are taken.’ This finding is equivalent to our initial puzzlement. The concept of resilience and especially Morel and Amalbertis results on fisher skippers indicate that the risk perception of fishermen is an integrated part of their expertise. The authors also discuss weather fishermens occupational accidents can be prevented through implementation of more ‘constrained safety’ measures, such as safety regulations, which is the most often used strategy to improve safety. Morel & Amalberti argue that constrained safety measures, could only be implemented at the cost of ‘managed safety’ or in other words resilience. Several studies have reported this dilemma between regulations and local expertise (4;6;16;18;21). The dilemma point to an angle that we miss when applying the concept of resilience to the risk perception of fishermen. Namely the socio cultural context of the fishermens work practice. Since resilience describes the safety system of an organisation or a quality of an individual such as a fisher skipper, it does not account for the social context of the fishermens work situation.
Reference List


Ref Type: Internet Communication


WS6.2-3 Abstract:

‘Paradoxes of the risks assessment in the branch of artisanal bakery’
by Bernard Dugué & Johann Petit, Ergonomists, Département d’Ergonomie – IdC Université de Bordeaux, France

In the very small companies of the craft industry, employees and employers carry out, at least partly, the same tasks, in the same workplaces, according to the same organisational constraints. They are thus exposed with the same working conditions, with identical potential consequences on their health. In these companies, the prevention of the occupational hazards and its structuring, is in to a large extent linked with the representation that the employer has of the risks to which he/she is him/herself exposed.

The proximity of factual experience between the employees and their employer can thus facilitate the comprehension of the difficulties which these employees encounter in the realization of their work, and may thus be an engine of the prevention. However, in the sector of artisanal bakery, the social system establishes a difference in the mode of recognition of the occupational diseases according to whether one is craftsman or employee, while being less favourable for the employers. Then, not surprising is the difficulty of building a shared representation of the risks, which is essential for an effective preventive action.

To go beyond this contradiction, we developed an approach of the prevention of the occupational hazards at the level of the branch of activity. By articulating the concrete reality of the companies and the possibilities of action at the level of the branch, it was possible to support:

- the mobilization of all professional actors, representatives of the employers and representatives of employees;
- the valorisation of positive initiatives which could be taken in some companies;
- a more balanced exchange with the providers and the hardware manufacturers;
- the dialogue with the training firms to include the prevention of the risks in the programs;
- progress in the taking into account of professional pathologies by the social welfare system;
- the installation of real prevention dynamics in the companies of this branch.
Abstract
In the very small companies in the bakery-pastry making sector, risk assessment and prevention must meet contradictory expectations. Employees and employers carry out, at least in part, the same tasks, in the same workplace, and with the same organisational constraints. They are thus exposed to the same working conditions, with identical potential consequences for their health. However, in these companies, occupational hazard prevention and the way it is structured is, to a large extent, linked with the time that the employers are prepared to devote to this task, and with their representation of the risks to which they themselves are exposed.
To examine these contradictions further, we developed an approach to occupational hazard prevention at the level of the branch of activity. At the same time we consider production issues and the existence of occupational hazards, looking at the concrete reality for companies and the possibilities for action at national level.

Key words
Risk assessment, small enterprises, bakery-pastry making, prevention, ergonomics

Introduction
All French businesses, of whatever size, are obliged to carry out an assessment of the occupational risks to which employees are exposed and put preventive measures in place. In the very small businesses in the artisanal sector, a significant feature of this compulsory assessment is the proximity of employers and their employees, who often carry out, in part at
least, the same tasks, in the same workplace, and according to the same organisational constraints. This proximity of experience could therefore facilitate their understanding of the difficulties encountered by employees as they carry out their work, and could thus be a possible a driving force to ensure prevention.

Moreover, businesses in this sector face two major challenges: complying with health standards which are becoming more and more restrictive, and the recruitment of qualified staff. Many artisans describe the considerable difficulties they have in attracting young people and ensuring that they work well in the bakery-pastry making sector. If some work were carried out on risk prevention and on improving working conditions, this could help make this profession more attractive to young people, who are not necessarily disposed to accept the same social constraints as those that existed twenty or thirty years ago.

However, in the artisanal bakery-pastry making sector, all the signs indicate that only one artisan in two (53% according to a study carried out by a department dealing with health and safety in the workplace) carries out this assessment procedure. Whenever a risk assessment document was produced, it was usually very formal and did not contain a true analysis of the work carried out and the conditions of exposure to hazards, and therefore provided little scope for effective prevention.

Confronted with this situation, the social actors in this branch of activity (employers’ representatives and representatives from employee trade unions) agreed that a study was needed to understand what obstacles there were to carrying out risk assessment and then to draw up some concrete proposals and tools to be used by artisan employers in the bakery-pastry making sector. This study\(^1\) was financed by a company foundation for research into prevention in the food sector. A national pilot committee was set up made up of representatives from employers’ and employees’ organisations and they determined the major directions of the study.

**Approach and methods**

Our working brief\(^2\) was based on a double requirement. First, to establish the context of our research at branch level\(^3\) mobilising all the key actors, and second to start from a thorough
understanding of the work really carried out by bakers-pastry makers before moving on to the question of the actual occupational risks involved. Our working hypothesis was as follows: any obstacles to risk assessment and prevention were in fact linked to constraints associated with the working activities of artisan bakers-pastry cooks. The research covers a three-year period (2008-2010), with the first year devoted to learning about the reality of the workplace, mainly by carrying out a diagnostic assessment in several establishments in this sector.

Our task was not to carry out a detailed study of the occupational risks involved (many studies exist on this subject), but rather to focus on the obstacles to implementing prevention procedures in the workplace, in order to suggest a structuring of activities at the level of the professional sector itself. Several working methods were put in place:

- documentary work, consisting of compiling a comprehensive list of studies already carried out, especially by the national social security department for risk prevention regarding accidents at work (CNAMTS) and the National Institute for Research into Occupational Health and Safety (INRS): manual handling, asthma in bakers, accidents at work, equipment, etc.

- observations of work in eight bakeries which were very different with regard to size, location, degree of mechanisation, type of oven used.

- interviews with the artisan bakers and with their employees: bakers, pastry cooks, sales assistants. Among these employees, different categories were taken into consideration: permanent employees, occasional workers (temporary, fixed-term contracts), apprentices. In all, 25 interviews were carried out. Using these interviews, we were able to define, validate and correct our earlier observations.

- interviews with different actors in this branch of activity: prevention advisers, occupational health officers, equipment manufacturers, heads of professional training bodies. These encounters enabled us to understand what aspects of the diagnostics carried out in the eight bakeries could be applied more generally and to incorporate these diagnoses into a multi-professional approach for the branch of activity.

On this basis, an overall synthesis was prepared and the main directions for the study were put before the pilot committee. As this work is not yet complete, the results that we present here relate to the first part of our research, i.e. the issues to be considered in an occupational risk assessment process in a sector of activity where businesses are particularly noted for being
very small (the majority employ between two and ten workers) and for their very scattered, sometimes even isolated locations.

Results

Contradictory expectations to be considered

During interviews, depending on their position, the various interviewees expressed expectations and mentioned issues which were in part contradictory. It seemed essential that we address these contradictions if the tools that we intended to offer businesses to carry out occupational risk assessment and prevention were to be effective, or even used. These are the main points mentioned:

- risk assessment cannot be reduced to a simple list of existing risks and dangers, it must try to understand how these may come about based on an analysis of the actual work carried out by people in specific situations, however the procedure must be simple and quick to put in place;
- the diversity of bakery-pastry making must be taken into account, and we must not apply a reality that in some cases is totally unfamiliar, however we must produce a common tool which is as operational as possible;
- it will be useful to consider the assessment method just as much as the results, however we must ensure that users will be able to quickly grasp the essentials of the procedure, without discouraging them with a long presentation of the assessment method;
- we should avoid simply transferring solutions that have been produced elsewhere, and we should give the idea that there are possibilities and encourage reflection on the various courses of action;
- it is important to link the possibility of risks with the other factors that determine the activity, but assessment sheets should be proposed that can be used directly in the workplace;
- it must be understood that risks are not just technical or just organisational, but that they are the result of many factors that combine together in working situations, however they still need to be classified into types of area of action so that they can be more easily defined and decisions taken.
Two major points emerged in our study: the first, clearly expressed by all our interviewees, concerned the lack of time that they said they had to consider risk assessment; the second concerned the paradox of the proximity of employees and employers and the effect of this on the employers’ representation of the risks incurred.

*The question of time, and yet…*

It must of course be recognised that artisan bakers-pastry cooks have very long working hours (especially bakers, whose working day starts very early). As well as the time spent in production, there is a heavy administrative burden of work which is done mainly in the evenings or on rest days. However, if we consider the matter more closely, we see that a considerable amount of time is spent by the employer on managing problems caused by their workers: worker absenteeism, accidents at work, recruiting staff, training new staff, minor incidents during production, etc.

Statistics for accidents at work and occupational illnesses provide us with some elements that give a better understanding of this situation (CNAMTS, 2007 statistics). Although the frequency rate for occupational accidents which involve lost time is not very high in the bakery-pastry making sector (about 30‰ on average in recent years, compared with 39‰ on average nationally in all sectors combined), we nevertheless note a large number of accidents among apprentices\(^5\). The main material factors involved here are:

- Manipulation and handling, with 26% of accidents in bakery-pastry making activities, 32% in bakery activities alone, and 24% in artisanal pastry-making.
- Same-level slips and falls, with 27% of accidents in bakery-pastry making activities, 32% in bakery activities alone, and 29% in artisanal pastry-making.
- Falls from a height, with 11% of accidents in bakery-pastry making activities, 12% in bakery activities alone, and 15% in artisanal pastry-making.

Among the large number of occupational illnesses, we note in particular peri-articular disorders and respiratory disorders caused by allergic mechanisms which represent more than 90% of all occupational illnesses across all bakery or pastry-making activities. Also, many illnesses are not declared as occupational illnesses. It must be remembered that declaring an occupational illness is on the initiative of the employee, and that very few employees in very small businesses complete this formality. Often, the only response given when a declaration
of occupational illness is made is to advise the employee to change careers, something which in most cases they do not want to do.

This assessment of working conditions clearly has consequences for the image portrayed of this career and hence of its attractiveness, and this was mentioned by the instructors that we questioned and the young apprentices that we met. This also explains in part the high turnover among employees. Although we have no quantitative data to evaluate the workload that this situation represents, all the artisan bakers and pastry chefs confirmed that they spent a considerable amount of their working hours on this. The question of available time which could be spent on an assessment and risk prevention procedure should therefore be set against the time that could be saved in terms of easier staff management.

The representation of risk
Occupational risk prevention and the way it is structured are not unrelated to the representation that the employers have of the risks to which they themselves are exposed. This representation is marked both by the similarity of the employers’ own experience to that of their employees, but also by the way in which their own risks are recognised and dealt with by the social security system (employee vs self-employed persons).

Employers and employees are certainly exposed to the same working conditions, with exactly the same potential consequences for their health. However, in the bakery-pastry making sector, the social security system differentiates in the way it deals with occupational illnesses, depending on whether one is an artisan employer or a salaried employee, and is less favourable for the employers. The risk that is entitled “Industrial Accident/Occupational Illness” (AT/MP in French) is only recognised by the public health insurance system for salaried workers. This cover presupposes that a correlation has been established between the illness or the occurrence of the accident and the characteristics of the work carried out by that individual. This in turn leads to a certain number of advantages for employees, including better financial conditions (no waiting period, 100% reimbursement of medical expenses). Cover is through a particular branch of the health insurance scheme, called “AT/MP”, and financed only through contributions from employers. For self-employed persons (e.g. artisan bakers, pastry-cooks), this cover cannot be offered under the conditions relating to
occupational risks but only under the general health scheme, which is less advantageous. Another consequence of the non-recognition of the “AT/MP” risk for artisan employers is that, while they do not have the contributions to pay, nor do they have the benefit of being monitored by an occupational health service. Whereas it is compulsory for employees to be checked medically (once every two years for the general scheme, once a year for occupations that require “enhanced medical supervision”), there is no such obligation for those who are not salaried. And yet, these consultations with the occupational health doctors provide an excellent opportunity to carry out screening tests, to ensure that workers are aware of the risks they may be running, and also to provide information about the principles of prevention.

Moreover, the professional artisans, mainly because they have not been alerted to the importance of these problems, often tend to minimise the hazards to which they are exposed, generally considering them to be “the risks of the job”. For them, knowing how to cope with these hazards is to some extent part and parcel of learning the profession. As we observed in the interviews, they can sometimes be quite critical of young employees, justifying this by saying that “they are less resistant”, which explains their frequent health problems. The artisan employer has a different attitude when he himself falls victim to an occupational accident or an occupations illness, like asthma, for example, or a musculoskeletal disorder.

All these factors contribute to making it more difficult to construct a common representation of the hazards, yet this is nevertheless an essential condition for effective preventive action. It seems clear that professional sector organisations could help bring about progress in this area through their dealings both with businesses in their sector and with the public authorities.

**Conclusion**

In the context of this study, an essential factor, in our opinion, is being able to link together risk prevention and production issues, especially in terms of health and staff management. For example, risk assessment could be considered as a kind of “project review” covering all the aspects that would need improving if a refurbishment of the bakery or the preparation room were to be carried out. We have started to compile such a list of generic questions which employers could think about in association with work space design: limit carrying loads around, facilitate the use of trolleys, avoid restricting postures when taking cakes out of a refrigerated display in the shop, facilitate access to the machines, especially for cleaning,
improve organisation in the refrigerators to avoid too much handling and protect the cold chain, etc.

By developing this kind of approach to occupational risk prevention at the level of the branch of activity it will be possible to link up the business reality with actions that are possible at this level. We will then be able to encourage, as we have already begun to do:

- mobilisation of all social partners, employers’ representatives and employee trade union representatives;
- recognition of positive initiatives that already exist in some establishments;
- a more balanced exchange with suppliers and equipment manufacturers who play an important part in technical and organisational decisions taken by artisan employers;
- dialogue with the training bodies, to ensure that they include risk prevention in teaching programmes;
- improvements in dealing with occupational illnesses on the part of the social security and health bodies;
- establishment of a real dynamic force in companies in this sector.

This work with the different actors will continue as this research-action progresses, and ultimately we will produce proposals for concrete actions in this branch of activity (training, guides, recognition of initiatives in the field).

Notes

1 It would be more accurate here to talk about research-action, since the intention set out in the research protocol is to transform existing situations by producing tools to be used by actors in the branch of activity.
2 This work was carried out for the most part by Eloïse Galioot, European Ergonomist.
3 In 2002 we carried out a study on the prevention of professional risks in the meat for human consumption sector and this work highlighted the importance of such an approach both in terms of understanding the problems to be dealt with and in mobilising the necessary resources.
5 There are more than 20,000 apprentices in the bakery-pastry making sector. They alternate a period of training in school with a period of practical experience with a baker-pastry chef.
References
CNAMTS, Statistiques 2007, CTN D, Boulangerie-pâtisserie,
WS6.2-4 Abstract:

‘Ergonomics and Work-related Musculoskeletal Disorders in Small and Medium-sized Enterprises’
by Ignacio Castellucci, Lic., Researcher, A. Sergio Miguel, Ph.D., Invited Full Professor, Pedro Arezes, Ph.D., Associate Professor, University of Minho, Guimaraes, Portugal Miguel Acevedo, MD, Universidad Mayor, Santiago, Chile (presenter possibly absent)

The Small and Medium-sized Enterprises (SMEs) are the key source of employment in Europe and South America. However, it seems that, due to several reasons, their workers may be exposed to less favourable working conditions, particularly in what concerns the risk of developing work-related musculoskeletal disorders (WMSDs). WMSDs is one of the biggest occupational health problem and, thus one of the major concerns for ergonomics. The objective of this study was to analyse and characterise working conditions, with special focus in ergonomics and WMSDs, of a group of Portuguese and Chilean companies. The method has consisted in the application of an online survey to enterprises of 4 different databases, both from Chile and Portugal.

After gathered more than 630 surveys answers, the result of this research shows, among other things, that 90% of the answers came from SMEs and 43.6% of the surveys were answered by the enterprises’ owners. The survey’s results have also shown that only 23.5% of enterprises had a register for WMSDs occurrence. Nevertheless, 27% of the respondents have reported that, in the 2 last years, they had some lost working days due to WMSDs. Finally, 75% of the respondents, either managers or workers, from enterprises have reported that they were available to spend some of their time to implement an ergonomic strategy to deal with WMSDs.

In conclusion, the percentage of reported WMSDs is not particularly high, but this low value may be underestimated as most of the companies did not have a reliable control and register of the WMSDs. Moreover, this situation seems to be associated with an inadequate organisation structure and knowledge and therefore it is essential that this can be improved using a SMEs-oriented ergonomic strategy.

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Abstract
The Small and Medium-sized Enterprises (SMEs) are the key source of employment in Europe and South America. However, their workers may be exposed to less favourable working conditions. The objective of this study was to analyse and characterise working conditions, with a special focus on ergonomics and work-related musculoskeletal disorders (WMSDs), of a group of Portuguese and Chilean enterprises. The method consisted in the application of an online survey in a range of enterprises. The result of this research shows, among other things, that a great number of differences exist between SMEs and large enterprises in what working conditions concerns. However, this situation does not exist between the two considered countries. In conclusion, those results corroborate the idea that SMEs have disadvantages, moreover, will be more difficult to implement actions to correct and improve these situations. Therefore it is essential that this can be implemented using a SMEs-oriented ergonomic strategy.

Key words
SMEs, Ergonomics, Work-related musculoskeletal disorders, Portugal, Chile.
Introduction
Micro, small and medium-sized enterprises (SMEs) are the engine of the European economy. They are an essential source of jobs, create entrepreneurial spirit and innovation in the EU and are thus crucial for fostering competitiveness and employment (European Commission, 2005). Also, it is possible to argue strongly that almost all South American countries give great importance to SMEs, in terms of developing their economies (Hiba, 1997). Table 1 shows an example of this, despite the differences between Portugal and Chile in terms of SMEs classification, which is verified mainly in the annual turnover criterion.

<table>
<thead>
<tr>
<th>Country</th>
<th>SMEs</th>
<th>% of total enterprises</th>
<th>% of Employment</th>
<th>% Gross Domestic Product (GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>99.0</td>
<td>80.0</td>
<td>21.7</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>99.6</td>
<td>75.1</td>
<td>56.8</td>
<td></td>
</tr>
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</table>

Table 1 – Resume of the situation of the SMEs in Chile and Portugal (Governo do Chile, 2003; IAPMEI, 2009)

Despite this economical importance, it seems that for several reasons workers in SMEs may be exposed to less favourable working conditions, therefore are subject to higher risk than the workers in large enterprises (Hasle & Limborg, 2006; Hiba, 1997; Malchaire, 2006; Sørensen et al., 2007).

The WMSDs are the single largest category of work-related illness, representing a third or more of all registered occupational diseases in the United States, the Nordic countries, and Japan (Punnett & Wegman, 2004).

The total cost of WMSDs for the economy and society is estimated at 0.5–2 % of GDP every year (Caffier et al., 2007), due to the large amount of direct and indirect costs related to the fall in production, administrative overhead, overtime pay, training and replacement of personnel, replacement of injured workers, and compromise in the quality of the product (Alexander & Albin, 1999; Oxenburgh et al., 2004). Indirect costs may be several times greater than direct costs and are often not measured by enterprises (Hagberg et al., 1995), which may lead them to underestimate the scope of the problem.
The main objective of this study was to analyse and characterise working conditions in SMEs, with a special focus in ergonomics and WMSDs, from a group of Portuguese and Chilean enterprises.

**Approach and methods**

**Characteristics of the survey**

Associated with the difficulty of applying the survey in two countries, for practical reasons and treatment of responses, it was decided that two web platforms should be developed, thus allowing collecting answers online through a specific website for each one of the countries separately.

In order to encourage the response to the survey, it was decided that the survey should be as simple and short as possible. These characteristics allowed an estimated response time between 6 and 8 minutes.

Before applying the survey, a preliminary study with a group of about 25 people in each country was conducted. The group was formed by workers, entrepreneurs and other people with different basic backgrounds such as Ergonomics, Engineering, Law, Occupational Safety and Health (OSH), and others. This test intended to check their understanding of the language used, to obtain an estimate of the time that would take to respond, the suitability of the questions and evaluate the functioning of the automatic data collection system.

Figure 1 shows the structure adopted in the developed survey, based on the 4 areas that are intended to be addressed: the characterisation of the enterprise, the quantification of the problem of WMSDs, existent knowledge of ergonomics and, finally, how enterprises had approached the working conditions in relation to ergonomics.

In the last part of the survey, it was referred the possibility to receive additional information on overall results of the survey. Thus, by indicating the e-mail, enterprises could ask the sending back of information about the final results of the survey, the final report of the project, or both. This option was included considering that there is a frequent request for answer electronic surveys and therefore, giving feedback is, or intends to be, an element of motivation to fill in the survey.
The sample

Given the objective of the study, the sample tried to represent the largest amount of enterprises in Chile and Portugal. It should be noted that this was a sample of convenience obtained from 2 electronic databases for each reported country. It is important to mention the use of a exclusion criterion, which was to have deliberately not made contact with the enterprise through OSH Practitioner, this forced the exclusion of the databases of the Laboratory of Ergonomics, at the University of Minho, which has the contacts of 5515 OSH Practitioners in Portugal.

In Chile, one of the used databases correspond to the PRO Chile (2009), an agency that belongs to the Directorate General for International Economic Relations of the Ministry of Foreign Affairs of Chile. The data base of about 5800 enterprises that account for exports made in the year 2007, of which 4395 (75.8%) have e-mail contact. At this respect, it is important to mention that, according to the Government of Chile (2003), 64.7% of the exporting enterprises are SMEs.
The other used database was the website for SMEs Chile (Pymes de Chile, 2004), which serves as an online guide on a diverse group of topics such as: management, productivity, business opportunities, human resources, etc.

One of the used databases in Portugal was a database enterprises belonging to the University of Minho, from 2005 and with a total of 1401 e-mails from enterprises. However, to reach a greater number of enterprises, the database of the Agency for Investment and Foreign Trade of Portugal was also used (AICEP Portugal Global, 2009). This database contains a total of 7764 exporting enterprises, of which 5387 have e-mail.

The selection of these databases meant that the responses corresponded to enterprises with size and sector of activity quite different, where it was possible to be sampling micro, small, medium and large enterprises in several sectors of activity such as manufacturing, construction, education, accommodation, catering and similar services, financial activities and insurance, among others. The inclusion of large enterprises in the sample was done in order to compare and check the differences between them and SMEs.

As presented in Table 2, the used databases contained 11372 e-mails addresses. However, this number should be withdrawn by the number of error messages received, which totalised a value of 1817 and those messages that were not delivered to the recipient (for incorrect/outdated addresses, full e-mail boxes, etc.). Thus, the message had the potential to reach 9555 possible answers.

In conclusion, considering the number of responses received, 639, we can estimate the response rate in about 6.7% (639 responses in 9555 possible). However, the real value of this rate can be slightly higher as some respondents, while filling the survey, reported by e-mail some situations of message filtering by their own anti-spam filters.

Finally, it is important to notice that the difference in the amount of answers submitted between the 2 countries (Table 2) may have been influenced by the number of possible answers, since the Portuguese sample had more than 48% of the Chilean sample and the double of the response rate. It is difficult to justify the latter situation, but there may be a group of possibilities, such as period used for sending the e-mails (December-April), which was the season of summer holidays in Chile, and the greater knowledge of the University of Minho by the respondents in Portugal.
Table 2 – Characterisation of the survey used data.

<table>
<thead>
<tr>
<th>Country</th>
<th>Database</th>
<th>E-mails</th>
<th>Possible Answers</th>
<th>Answers</th>
<th>Answer Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>PRO Chile</td>
<td>4395</td>
<td>3670</td>
<td>149</td>
<td>4.1%</td>
</tr>
<tr>
<td></td>
<td>Pymes de Chile</td>
<td>189</td>
<td>179</td>
<td>12</td>
<td>6.7%</td>
</tr>
<tr>
<td>Portugal</td>
<td>U. Minho</td>
<td>1401</td>
<td>828</td>
<td>51</td>
<td>6.2%</td>
</tr>
<tr>
<td></td>
<td>Aicep</td>
<td>5387</td>
<td>4878</td>
<td>427</td>
<td>8.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>4</td>
<td>11372</td>
<td>9555</td>
<td>639</td>
</tr>
</tbody>
</table>

Statistical analysis

All data were entered into Microsoft Office Excel 2007 and analysed using SPSS v16.0. Categorical data were summarised using percentages and analysed using the chi-square test (cross table) with 95 % confidence interval, which was performed for testing the independence between the variables and the enterprises size.

Results and Discussion

Characterisation of the enterprises

Based on 639 responses from the 2 countries, figure 2 shows the distribution of enterprises according to their size. Comparing the sample with the economical reality of these 2 countries, mentioned above and described in table 1, it can be stated that the sample is considered to be biased. However, there is a difference in the "gap" between both countries, being more pronounced in the case of Chile, while the Portuguese sample is more representative of reality. This situation may have been caused by the fact that the Portuguese sample (478 responses) is considerably higher than the Chilean sample (161 responses).
Considering the variable “person who answers” and “the size of the enterprise”, figure 3 shows 3 situations that would be, in some way, expected. The first one is related with the large number of owners of the enterprise that answered the survey in micro enterprises, which decreases as long as the size of the enterprise increases. The other 2 cases are the increase of responses of "OSH Practitioner" and "other worker responsible for SH" as long as the size of the enterprise increases.

These trends, previously noted, were tested for statistical significance and the obtained result ($X^2 = 1.044; p < 0.05$) has shown that these 2 variables are statistical dependent.
From the analysis of the data in figure 4 it is possible to see an increasing number of enterprises with workers commission, as the size of the enterprise increases, with a significant "jump" in the categories with different requirements in the Chilean law. This condition suggests that the law can be an important factor of influence. This situation was also found during the implementation of the Workplace Assessment (WPA), where complying with legislative demands was the basic motive of management to initiate the process (Jensen et al., 2001).

![Figure 4 - Characterisation of the Chilean sample according to the existence of “workers commission” and the size of the enterprise.](image)

<table>
<thead>
<tr>
<th></th>
<th>Micro</th>
<th>Small</th>
<th>Small with legislative demands</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t answer</td>
<td>2.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Have</td>
<td>2.0%</td>
<td>6.0%</td>
<td>53.0%</td>
<td>85.0%</td>
<td>96.0%</td>
</tr>
<tr>
<td>Don’t have</td>
<td>96.0%</td>
<td>94.0%</td>
<td>47.0%</td>
<td>11.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

In what regards Portugal use data, in figure 5, even if there is an increase of “workers commission” in relation to the enterprise size, it is not possible to see a clear "jump. However, as in the Chilean sample, these variables are dependent and this dependency is statistically significant ($X^2 = 36.371; p < 0.05$).

Considering those situations it is possible to conclude that the presence of “workers commission” is not simply influenced by legal requirements, but also by the size of the enterprise.

![Figure 5 - Characterisation of the Portuguese sample according to the existence of “workers commission” and the size of the enterprise.](image)
**Quantifying the problem of WMSDs**

Before any analysis between the considered variables of this area and the size of the enterprises, it is important to mention that only 23.5% of enterprises had a register of WMSDs occurrence. Nevertheless, 27% of the respondents have reported that they had some lost working days due to WMSDs.

Regarding to the variables “size of the enterprise” and “register of WMSDs occurrence”, represented in figure 6, it is possible to determine a statistical significant association between them ($X^2 = 59.543; p <0.05$), which may be caused by the low number of responses in micro enterprises. As already stated, there is an increase on the WMSDs registry as the size of the enterprise increases.

![Figure 6 - Characterisation of the sample according the register of WMSDs occurrence and the size of the enterprise.](image)

Figure 7 shows a directly proportional relationship between the variables “existence of lost working days due to WMSDs” and the size of the enterprise, which is more obvious in large enterprises. This relationship shows significant differences, determining that the variables are dependent ($X^2 = 77.747; p <0.05$).
Figure 7 - Characterisation of the sample according to the existence of lost working days due to WMSDs and the size of the enterprise.

In conclusion, it is possible that the low value of reported WMSDs (figure 6) may be underestimated, as the majority of enterprises, in particular SMEs, did not have a reliable and systematical WMSDs control and register. Moreover, this situation seems to be associated with an inadequate organization structure and knowledge.

**Knowledge of ergonomics**

Considering the variables “existence of worker with training in ergonomics” and the size of the enterprise” (Figure 8), it is not possible to detect any particular influence of the size of the enterprise in the workers’ training between the micro and small enterprises. However, this influence can be somehow observed in other categories, which present a greater number of workers with training. The application of a statistical test shows that these variables are statistically dependent ($X^2 = 57.387, p <0.05$).

This result is in accordance with previous studies (Lehtinen, 2006; Stuart-Buttle, 1999), in which was referred that the workers in small enterprises have low level of educational and vocational training and that their knowledge about occupational safety and health is practically inexistent.
Figure 8 - Characterisation of the sample according to the existence of worker with training in ergonomics and the size of the enterprise.

From the carried out statistical analysis, it is possible to verify that there is a statistically significance dependency between the variables "person who answer" and "knowledge of the legislation of WMSDS" ($X^2 = 84.449; p < 0.05$). Figure 9 shows, as would be expected, less knowledge of the legislation by the owners of enterprises and superior knowledge in the categories of "another worker responsible for the OSH”. This value is even greater in the OSH Practitioner category.

Figure 9 - Characterisation of the sample according to the knowledge of the legislation of WMSDS and the person who answer.

If one considers a number of factors, such as the legislation regarding the obligation of the existence of OSH Practitioner, the enterprise's employees with low training in Ergonomics
and the fact that the owners have little knowledge of the legislation regarding WMSDs, it can be concluded that SMEs are at a disadvantage when addressing the problems associated with working conditions in general and those of ergonomics in particular.

**Ergonomics interventions**

Considering the obtained results of the variables “size of the enterprise” and “the total number of implemented improvements” (Figure 10), it is possible to determine an increased number of improvements implemented as the size of the enterprise increases. The obtained results show that there is a dependence between these 2 variables ($X^2 = 1.311; p < 0.05$). This situation can be associated with the lack of time and economical resources in the smaller enterprises (Jensen, 2001).

![Figure 10](image_url)

**Figure 10 - Characterisation of the sample according to the total number of implemented improvements and the size of the enterprise.**

Finally, the respondents were asked whether they will to participate in the implementation of an ergonomic strategy, with the aim of improving working conditions. The results (Figure 11) show a large number of enterprises that are willing to participate in an ergonomic strategy. Despite the greater number of positive responses in the Chilean sample, the difference between the two countries is not statistically significant ($X^2 = 1.339; p > 0.05$).
Conclusion

This study intended to generically analyse and characterise the working conditions, with a special focus in Ergonomics and WMSDs, of a group of Portuguese and Chilean enterprises, based in online survey sent to 9555 enterprises.

According to the obtained data, it can be concluded that there are not great differences between the 2 countries. However, between SMEs and large enterprises, it was possible to observe a significant number of differences. These results corroborate the idea that SMEs are at a disadvantage regarding to the working conditions and, moreover, the implementation of actions to correct and improve inadequate work situations will be more difficult.

Nevertheless, there are a greater number of large enterprises with lost days due to WMSDs when compared with other categories, but it is important to notice, that without a real quantification of them, the number of WMSDs in SMEs may be underestimated.

A final result that needs to be highlighted is the fact that 75.3% of the respondents expressed willingness to dedicate some of their time in the implementation of an ergonomic strategy to improve working conditions. Considering all the information, it is important to apply an Ergonomic Strategy that keeps the control of WMSDs, using simple procedures, and adequate external support. It is also important to execute specific training programmes and give information with low cost ideas to improve SMEs working conditions.
Acknowledgments

This research was funded by Alban Program scholarship Nº E07M402137CL.

References


WS7a: 'OSH regulation and intervention – internal and external challenges'

Chairs:
Peter Hasle, National Research Centre for the Working Environment, Denmark
Per Langaa Jensen, Technical University of Denmark

It is difficult to combine the regulation of occupational health and safety with the needs of small enterprises. This workshop will from different perspectives address this issue.

The first part of the workshop will present analysis of regulation and the relevance for the small enterprises.

The second part will look at examples seen from the perspective of the small enterprises: How do they understand the concept of occupational health and safety and how do they react to regulation efforts from the authorities?
Presentations, session WS7a.1
Chair: Peter Hasle

Time: Thursday 22 October, 11.15-12.45:
Location: B-10
Abstract:

‘Health and safety in small workplaces: Refocusing Upstream’
by Joan M. Eakin, Ph.D. Dalla Lana School of Public Health, University of Toronto, Ontario, Canada
Danièle Champoux, M.A., Institut de recherche Robert-Sauvé en santé et en securité du travail, Québec, Canada
Ellen MacEachen, Ph.D. Institute for Work & Health, Toronto, Ontario, Canada

Objectives: Small workplaces have particular injury risks and are enduringly difficult for the occupational health and safety (OHS) system to reach. This paper puts forward an ‘upstream’ perspective on OHS in small workplaces that moves beyond the attributes of the workplace and those who work there.

Methods: The paper synthesizes ideas and findings from two qualitative studies of regulation, policy and practice in Québec and Ontario (Canadian provinces), and an international systematic review of literature on OHS in small workplaces.

Results: ‘Upstream’ structures and processes (regulations, policies, services, interventions, professional practices) are often misaligned with the conditions of work and social relations of small workplaces. Key ‘upstream’ factors include regulatory exemption, sub-contracting, unionization levels, the changing character of small enterprise, joint management, service and inspection constraints, competing institutional accountabilities, institutional orientation to large business, and inappropriate service and policy.

Conclusion: Misalignment of the OHS system with the nature and practical realities of small workplaces can undermine prevention and the management of ill-health and injury. To address such misalignments the paper calls for: 1) restructuring of data collection and consultation processes to increase the visibility, voice and credibility of SBs; 2) ‘audits’ of OHS-related legislation, policy and interventions to assess and address implications for small workplaces; 3) reflection on current concepts of ‘small business’ that render workers invisible and ill-capture the essence and (increasing) diversity of these workplaces; and 4) extension of the ‘upstream’ gaze to the global level.
WS7a.1-2 Abstract

‘The marginalized occupational health and safety management in small firms’
by Yu-Feng Wong, Ph. D., Center for Society, Technology, and Medicine, College of Medicine, National Cheng Kung University

Compared to large and medium firms, small firms are usually paid less attention to occupational health and safety (OHS) management affairs under OHS regulations. This paper attempts to analyse OHS regulation structure to indicate how OHS management affairs of small firms are marginalized.

This study employed the contents of Labaour Occupational Safety and Health Law (LOSHL) and its bylaws as analysed materials to structurlise OHS management affairs in terms of small firms.

The main findings are as follows: 1. the coverage of LOSHL does include all scales of firm; 2. the Occupational Safety and Health Management Unit and Self Inspection Regulation, one of LOSHL bylaws, excludes small firms from setting up an OHS management administration with no other assist system from the government; 3. Worker’s Health Protection Regulation only requires large firms to set up occupational health staffs that leads workers who are working at small firms can not have adequate occupational health surveillance.
The marginalized occupational health and safety management and occupational health services in small and medium firms

YU-FENG WONG\textsuperscript{1} Dr. Assistant Professor
Centre for Society, Technology, and Medicine,
National Cheng Kung University, Taiwan. E-mail: wongyfuk@gmail.com.tw

Abstract

Compared to large firms, small and medium enterprises (SMEs) are usually paid less attention to occupational health and safety (OHS) management affairs and occupational health (OH) services under OHS regulations. This paper attempts to analyse OHS regulation structure to indicate how OHS management affairs of SMEs are marginalized and proposed possible solutions to confront the challenges.

This study employed the contents of Labor Safety and Health Law (LSHL) and its bylaws as analysis materials to structuralize OHS management and OH affairs in terms of SMEs.

The main findings are as follows: 1. the coverage of LSHL does include all scales of firm; 2. the Occupational Safety and Health Management Unit and Self Inspection Regulation , one of LSHL bylaws, excludes SMEs from setting up an OHS management administration with little assistant system from the government; 3. Worker’s Health Protection Regulation only requires large firms to set up occupational health staffs that leads workers who are working at small firms can not have adequate occupational health surveillance.

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A. Introduction

There has been much literature arguing occupational health and safety (OHS) issues in terms of small and medium enterprises (SMEs) in the global social economic context, neoliberalism, in super-state perspective, in terms of intermediary, or at local level framework of occupational health (OH) services (Quinlan et al., 2001; Westerholm and Walters, 2007; Muto, 2000; 2007).

Recently, the most attention paid to is OH services in the book of Supporting Health at Work: International Perspectives on Occupational Health Services, edited by Perter Westerholm and David Walters (Westerholm and Walters, 2007).

The high proportion of SMEs, manufacture in particular, actually is not new phenomenon in the western countries or Taiwan (Xue and Hu, 1999: 6). The proportion of SMEs in Taiwan has been remaining as high as 90% or more since 1975, and even higher at 97.64% of all industry by 2008. Lebralization of economy and economy restructuring since the 1980s under the banner of neoliberalism does shape the employment style from permanent to precarious works and increases occupational risk for the employees working in SMEs (Quinlan et al., 2001). An adequate OH services has been called for by researchers worldwide.

Taking on the surge of requesting proper OH services for SMEs workers, this paper will present the frame of OHS system and its entailed OH services in Taiwan, by reviewing the OHS legal system, including the Labor Safety and Health Law and its ordinances. By referring international and Taiwanese literature related to OH services and legal framework, including structure, staffing, finance, and regulation, I am trying to pint out the position of the SMEs in the current OHS management and OH services system, the challenges and its possible future for improving preventive OH services for employees in the SMEs.

B. Approach/methods

This research is based on literature review and three in-depth interviews, carried out on 28 Aug and 1 Sep 2009. The reviewed literature included the LSHL, and its 12 ordinances, Industrial Health and Safety Law 1972 in Japan, Occupational Safety and Health Act 2002 in Finland, researches associated with OH services and its results, occupational diseases, government archives and statistics of economy, OHS policies and documents. The interviews are conducted by Mr. Chung, Han-Shu, the research assistant of this project and me to probe
the operational mechanism of the OH services in practice and its future development. By framing the OHS system, OH service structure and its practical outcomes, and citing international literature, possible solutions to the challenges of OH service system in Taiwan are pointed out.

The structure of Occupational Health and Safety Services for Enterprises

Management system

Despite of its effectiveness, occupational health and safety management system (OHSMS) has been employed by both public regulators and commercial standardize organizations as one of tools for reducing occupational hazards in terms of health and safety. The types of OHSMS are varied according to their occupational and safety philosophy. Liberalism and state-interventionism is a popular dichotomy in discussing issues related to occupational health and safety (OHS) with respect to political spectrums (Needleman, 2000). Such concept is useful to analyze the characteristics of OHSMS in Taiwan, the differences between large and small-medium enterprises in particular.

The OHSMS is a mandated duty under the article 14 of LSHL in general for any enterprises in Taiwan. However, the requirements, through the Labor Safety and Health Management Organization and Self-Inspection Ordinance (LSHMOSO), regulated by the administrative agency, Council of Labour Affairs (CLA), are partially different regarding to scale of firms. Hence, the organizational structure and personnel of OHSMS is depended on to the scale of the firm.

In terms of organizational structure, three categories are assigned according to risk level of enterprises specified in the most updated LSHMOSO, article 2. Overall, there are 32 main industries covered in the three risk levels with 107 sub-industries. Amongst the 32 main industries, there are only 6 industries belonging to low risk, Level One, and the rest of them are situated at medium to high risk category (see Appendix 1). With respect to scale of firms, the organizational structure of OHSMS under the LSHMOSO is categorized to four to six different sub-categories. This dimension compounds the dimension of risk level into two different of OHS organizational structures (Table 1). In other words, only those Level One industries with one hundred or more employees or those Level Two industries with three hundred workers or more are compulsorily to have an official OHS organization for planning and operating an OHSMS.
Table 1: Type of OHS Organizational Structure

<table>
<thead>
<tr>
<th>Employees</th>
<th>Level One</th>
<th>Level Two</th>
<th>Level Three</th>
</tr>
</thead>
<tbody>
<tr>
<td>≧ 100</td>
<td>A (1)</td>
<td>N (2)</td>
<td>N</td>
</tr>
<tr>
<td>≧ 300</td>
<td>A</td>
<td>A</td>
<td>N</td>
</tr>
</tbody>
</table>

Source: IOSH (Institution of Occupational Safety and Health), 2009

OHS personnel are equipped to each OHS organizational structure in accordance with its type. Although part of small and medium enterprises or establishments is not required to build up a top OHS management organization, it is necessary to deploy OHS personnel with required qualification. Although there has been no exact consistent definition about SMEs throughout the world, number of employees is used as one of the criteria and the upper frequent cut-point seems to be 250 employees despite 500 employees are also applied (Hillary, 2000, 12-13; Smith, 2000: 26; Ayyagari et al., 2007: 416; Hallberg, 2000: 1; Buckley, 2004: 67).

Furthermore, definition of small enterprises is more inconsistency in comparing to small and medium enterprises. In terms of employed number, less than 10 in Pakistan, between 6 to 20 in International Labour Organisation (ILO), below 50 in Hungary, between 50 to 100 or less than 300 in some other countries, and it is even changeable in accordance with industrial categories (Kontorovich, 1999; White, 2004: 8; ITC, 1996: 3; Ahmed, and Shabbir: 2; Hallberg, 2000: 1). The definition of SMEs is intersected by both number of employees and industrial categories.

In Taiwan, employment is also one of important conditions in defining SMEs. However, the cutting point for upper number of employees is not constant. Rather, it is varying according to industrial categories regulated by the Ministry of Economy (Small and Medium Enterprise Administration, 2005), and literature related to SMEs researches seems to be agreed without doubt or discussion over its variation of number employed (Yei and Chen, 2007: C-24; Yeh, 2005: 7). It seems to me that higher risk industries with less than 200 workers are seen as small enterprises, and lower risk is less than 50. The scale of SMEs looks a little smaller than other territories described above. With respect to small enterprises, the definition is mainly depended on number employed less than 5 workers no matter what industry the employees working for. It is also smaller than the territories mentioned above in cutting point of employees.
Since definition of SMEs is so varied from country to country, the better way to discuss OHS management of SMEs is focusing on local legal contexts and looks for their conjunction. In the conjunction of OHS management structure under the LSHL and the definition of SMEs under the Small and Medium Enterprises Definition Standards, I prefer to define SMEs as firms or establishments with less than 300 employees. This definition also fits to the enterprises that are responsible for paying worker’s compensation premiums for their employees under the Labor Insurance Act (LIA).

Accordingly, whatever hazards that workers may confront during their labour process in those SMEs, there is not necessary for them to build up any essential OHS management system. This is absolutely different from large firms, and the qualification and deployment of OHS personnel are also significantly different.

**OHS Personnel and their duties in the SEs**

Although the SMEs are not required to establish their own OHS management system legally, they are still responsible for providing OHS personnel to plan, practice, and supervise over OHS affairs in order to prevent and eliminate occupational injuries and diseases. In general, each SME must have Grade 3 OHS manager (3) who can be an employee or the employer her/himself after a three compulsory OHS training modules with at least 14 to 16 courses. Regardless of risk levels for SME, there is no extra OHS employee required by the LSHMOSO. In other words, employers can decide to have their own OHS personnel or not.

The main jobs that those OHS managers have to do are OHS management planning, supervising, and promoting OHS affairs at workplace. Main categories of planning, supervising and promoting include identifying, evaluating, and controlling hazards at workplaces and labor processes. Hazardous contents must be taken into account under the managing categories are at least machines, equipments, toxic/dangerous substances, management regulations, self-inspection, training/education, health services, information communication, investigation and statistics of OHS incidence, and OHS management review. However, the part of planning can be compromised by records or documents of SMEs practices as a replacement for practical reasons (CLA, 2008).

In terms of large scale enterprises, over 300 employees, their OHS personnel are consist of a manager and at least one OHS specialist. OHS managers have to carry out planning, supervising and promoting maters as what the SMEs do under the LSHMOSO. The OHS
A manager must be a full-time employee with OHS background, qualified as an OHS specialist. There are two levels of OHS specialist, the lower level is OHS operator, and the higher is industrial hygienist or safety technician. However, the enterprises at Grade 2 risk group with employees less than 300 or at Grade 3 less than 3000 workers are not required to have any OHS specialists but managers only.

Risk managed

Despite the difference of OHS management system between SMEs and large enterprises in terms of official organization, personnel, and its qualifications, risks that must be managed are exactly the same regardless whatever scale of an enterprise is. The sorts of risky hazards that have to be managed include chemical, physical, machinery operational standards and monitoring procedure. As occupational health (OH) services have been paid little attention by social sciences in comparison with European counterparts, I will focus on standards or procedures that OH matters are involved in particular. Through showing what hazards are required to be dealt with by OHS specialties, the deficits of the OH services under the current frame of OHS management system will be pointed out with the global context.

It has been evident that many occupational health problems occurred at workplace because workers were exposed to particular or unidentified hazards, including chemical, physical and psychosocial ones (Case, 1966; Markowitz et al., 2007; Cannon et al., 1978; Chan-Yeung, 1986; Palmer et al., 2002; Lam and Yau, 1992; Kindwall et al., 1982; Kompier, 1996; Miyamoto et al., 2000; Schwarze et al., 1998; Tse et al., 2005; Tuchsen et al., 2006; Nishiyama and Johnson, 1997; Aschengrau and Seage, 2003; Turner, 2004; ). There has been at least 17 OHS ordinances related to manage these hazards under the LSHL since 1984. Among which, nine are chemical associated, eight are physical related, and none is for psychosocial exposures.

What should be measured regularly is density of hazards specified in Standards of Allowed Hazardous Concentration at The Workplace (SAHCW) and Working Environment Measurement Ordinance (WEMO). Enterprises have to employ measurement technicians or contract environmental measurement to measuring institutions in order to monitor exposure status of particular hazardous chemicals used or produced during the course of production. All measured samples involved with chemicals must be sent to laboratories recognized by the CLA for further test and analysis. It is required that results of measurement must go with those analyzed reports from the recognized laboratories.
These results measured must be kept by employers and the measuring institutions. For the employers’ part, they have to hold those records and plans of measurement. The plans of measurement have to be kept for 3 years. The measured records are required to be remained for 3 to 30 years depending on hazards identified under the WEMO.

With respect to the measuring institutions, they are obligate to submit the results measured to the central authority, Council of Labor Affairs, for reference. In order to monitor the practice of measuring institutions, the CLA can penalize those institutions who are breach of their legal duties, such as fraud of measured results, application of measuring methods unrecognized by the CLA, or submitting measured results irregularly. However, there is a lack of such surveillance mechanism to control their quality of environmental measurement.

In terms of psychosocial hazards, stress, over work, job-related exhaustion, fatigue, depression, and post-traumatic stress disorder (PTSD) have become serious problems at workplace throughout the world. Taiwan is not exceptional. In the past 20 years, Japanese Reorganizing Standards of Karoshi (death from overwork) have been imitated twice in 1996 and 2003 (Wong, 2009). Recently, the CLA also invited a Japanese occupational health physician, who has involved in creating recognizing standards of occupational mental disorders in Japan, to share the experience of compensable principles. For eliminating karoshi, Japanese government has required workers whose working hours over the karoshi standard to see physicians for health guidance (Muto, 2007: 174). On contrary, the CLA see overwork as employees’ self-problem and produce guidance to tell them to a couple of ways to avoid consequences of overwork, such as having a rest, seeing a psychologist, going for a massage, working regularly etc. (IOSH, 2008). These suggestions are almost nothing to do with providing OH services to prevent metal or biological problems related work.

For further preventive OH purpose, it could be very hard to plan good preventive measures without medical professionals to analyze the exposure records measured by employers themselves or the measuring institutions. The Occupational Health Regulation is the legal framework for such aim by requiring employers to establish their own health service units, create joint health service units with other employers, or contract the services to health organizations.

In principle, only enterprises less than 300 employees or hazardous enterprises with less than 100 workers are exempted from establishing occupational health service organization. These health providers, either in-house clinics or contracted public or private health institutes,
must employ physicians or occupational physicians, and occupational nurses according to scale of the enterprises they serve. OH nurses are definitely fulltime; however, physicians could be part-time with employees between 300 and less than 3000, and fulltime physicians are required only for the enterprises over 3000 employees. It is clear enough that SMEs are excluded from the official OH services framework by setting some kinds of OH organizations. For employees of SMEs, their OH providers can be health organizations with or without occupational physicians and nurses.

For large firms with in-house or contracted OH providers, the compulsory OH service items include health examination, special health examination, health management, health promotion, helping to carry out prevention of occupational diseases and improvement of working environment, curative and first-aid for occupational and non-occupational injuries or diseases, vaccination, recommendation of health follow-up etc.. Nevertheless, other than health management for dust related works, the required service items are dramatically decreased to three, which are health examination, special health examination, and recommendation of health follow-up for SMEs without OH in-house or contracted OH providers.

The OH services, including working environment measurement and health cares, described above are provided through three different professionals, measurement technicians, OH/non-OH physicians, and OH nurses.

The information, such as coverage number of enterprises, employees, covered number of scale of firms, related to working environment measurement is basically unknown after a brief interview with the authority, CLA, on 27 August 2009. The interviewee responded that all enterprises have to actively apply for working environment measurement since the authority is unable to know what hazards exist in any enterprises. Accordingly, it is also very difficult to know what proportions of enterprises different scales are being served although there are 88 registered measurement technicians working at 29 environmental measurement institutes throughout this country. Therefore, it is hard to give the national profile in this respect although the ex-chief officer of OHS Division had recognized the importance of environment measurement in terms of its purposes, preventing and tracing occupational problems/incidences (Lin, 2002).

In terms of physicians, there were 86 in-house physicians, and 193 OH physicians according to a report of Department of Health, the national health authority (Ger, 2003). The figure of occupational and non-occupational physicians for OH services cold be larger than
that described above since those physicians who are eligible doing health examinations are not entirely included. Only those in-house physicians are serving at fulltime basis, many of the rest may be part-time if they are hired under employers’ request. Part-time OH physicians are required to carry out their duties for between two to nine hours per week (4) depending on scales of the enterprises they serve to. In general, employers and employees in SMEs’ can only use OH services provided by the occupational physicians and non-occupational physicians entitled to do health examinations, and there is no minimum service time for the physicians to do further site visits at all since the enterprise are not required to hire or contract any part-time physicians on a daily basis. The only chance for the physicians, occupational physicians in particular, is when employees of the SMEs come to the centers for occupational injury and disease diagnosis and treatment, supported by the CLA with significant budgets since 2003.

Regarding to OH nurses, there were 292 serving as in-house medical professional at enterprises, and the number had increased to at least 401 although its official number is not available (Ger, 2003; Shiao, 2005). Their duties are exactly the same as fulltime in-house physicians excluding medical treatment if they work for the enterprises with part-time physicians. The OH nurses are required at a daily basis with fulltime employment. Each enterprise with 300 or more employees must hire one OH nurse without exception. That is, again, SMEs do not need to employ OH nurses for providing OH services.

**The challenges of the OHS management system in the field of OH services**

As can be seen in the previous description, the OHS management system has two layers in terms of OH prevention deployed within and between enterprises themselves and the OH services providers if applicable. The top layer is a compulsory OHS management organization established by a mandatory firm with an OHS manager and specialist(s). Such management organization has to plan/decide preventive measures according to OHS regulations as well as current health conditions of its employees and exposure situation of the workplace, and supervise its employees to carry out the measures planned. The secondary layer is hazardous/health data collection providing from measurement institutes and health professionals employed by the firm or from outside recognized health organizations through contract. The measurement institutes are playing a role of internal control by checking with measurement proposals planned by employers. By the way, there is another external layer,
labour inspection, for securing the mandatory preventive duties of enterprises to be carried out, working environment measurement and health examinations and management (Figure 1).

Figure 1 The structure of OH services and its control

For SMEs, there are several challenges are confronted within such OHS management system in delivering OH services. It includes restricted coverage of establishing OHS management organization as well as medical unit, deficit of finance, unrealistic practice, weak tie of surveillance, edict regulation. These factors compound the marginalization of SMEs OHS management.

Restricted coverage

In the globalized context, increasing workers are working at SMEs. Whether they are contract workers, permanent workers or contingent workers, all have been recognized as higher vulnerable group than those who work at large corporations. The traditional OHS management system designed in the past legal framework has been out of date since many jobs with higher hazards, physically or psychologically, have been outsourcing, or subcontracted to SMEs most of which are unable to afford OHS management costs (Matti et al., 2004; Mayhew and Quinlan, 1999; Reinert et al., 2007; Benjamin and White, 2003: 12 & 31; Mizoue, et al., 1999: 116). This may intensify the difficulty of OH prevention for employees and employers of SMEs in Taiwan since international trading is a major part of Taiwanese economic activity.

Unfortunately, SEMs are excluded from establishing any kinds of OHS management system according to the LSHMOSO. By 2008 all categorized industries of SMEs, over one million with 97.64% of all scaled enterprises, are covered under the LSHL. Its labor force is at 76.58% of industry as a whole with almost eight million employees. These workers are
working at firms without official OHS management system to take care of day to day OHS
preventions. Although an OHS manager is required for each firm under the LSHOMSO, such
part-time based OHS managers, often are employers, may not do job in an efficient way since
they are probably also producers. This could lead the SMEs to ignore or avoid provide well
organized OHS plan, environment control trough measuring density of hazards the workers
have been exposed to, and adequate preventive health cares.

It is understandable that requiring an OHS management organization to be established in
an SME is a sort of idealist thought without standing point based on employees and
employers’ social economic context, who is going to pay the cost for maintaining their
businesses and employment.

The better way to deal with organizational problem, in my point of view, is to look for
OHS management resources from outside instead of inside the SMEs because of financial
weakness, 76.58% of total employment only produce 28.75% of total sales in 2008. The state
must play a significant role in raising outside resources for the employees working in SMEs
by reframing the required management organization.

There have been such similar experiences in some countries, such as Finland, Japan, and
Korea (Mizoue et al., 1999; Lee, 1999; Muto et al., 2000). They have developed different
models to provide OH services and alternative OHS management system for SMEs
respectively. Such models are highly depending on state intervention in terms of finance, full
or partial subsidies, at least in order to provide more comprehensive preventive plan with
adequate measures developed from analysis of health examination, and work environment
measurement (Wong, 2005). One of the significant examples is recommendation compliance
of employers in Japan, physicians may replace the role of OHS managers in SMEs without
OH professionals as soon as employers receives health recommendations on employees from
industrial physicians (JICOSH, 2008).

**Difficulties of OH services**

As discussed above, there is neither requirement to nor possible for establishing OHS
organizations in the SMEs, and assistance from outside resources is needed. The current
available adequate candidates for providing such resources have to be involved in this reform
to resolve the difficulties existing within the present OH services structure, practices and
personnel problems.
Since the SMEs have been excluded from establishing their own medical unit with occupational physicians/non-occupational physicians and occupational nurses, some necessary preventive OH services for workers’ health required to the large firm are absence in the SMEs, such as helping the employer to carry out prevention of occupational diseases and improving work environment in particular.

Integration of working environment measurement and preventive occupational medical services has been specifically emphasized in many countries like Japan and Finland (Mizou et al., 1999: 120; JICOSH, 2008). For example, there is a corresponding relationship between occupational physician, occupational nurse, technician of working environment measurement (measurement expert in Japan, occupational hygienist in Finland), ergonomist, and psychologist (Mizou et al., 1999:117-118). On the contrary, there is a gap between the services provided by the measurement institute and by the occupational medical care because neither a requirement from the Workers’ Health Protection Rule nor a habit of cooperation between both OH providers is formed formally for making sure how risk the employees are exposed to. Whether in legal or practical aspect, ergonomist, and psychologist rarely participate in OH services if there is any.

There are legal requirements of qualification for all personnel in OH services except physician. As mentioned previously, any physician, occupational or non-occupational one, can serve the employer like an enterprise doctor in the SME. This has caused huge problems of risk assessment, health examination, and measures for occupational health prevention all together. The manifest case could be health examination for workers. The Pre-employment and Employment Health Examination Institute Appointment and Enforcement Ordinance allows a health provider without occupational physician to apply for an appointed general health examination institute for pre-employment and employment. It is difficult for the physician in the appointed health organization to assess the results of examination without occupational medicine training although reading of examination results is required by the Physician's Manual on Health Examination for Workers (Guo et al., 1999; Chung et al., 2009: 160-161; Fu, 2008: 26-27). The revised statutory requirement of applicant for appointed health provider to hire physicians trained with the knowledge of occupational medicine has been passed in 2008. The effect on quality of health examination needs to be evaluated in the near feature.

However, even non-physician trained in occupational health under a requirement of the Pre-employment and Employment Health Examination Institute Appointment and
Enforcement Ordinance (PEHEIAEO), they are no specific role in helping employers to carry out prevention of occupational diseases and improving working environment according to the Labor Health Protection Regulation (LHPR). It means that there is a shortage of personnel in OH physician. Only about 151 OH physicians serve 7.9 million workers in the SMEs. That is, per OH physician has to serve nearly 53 thousand workers, which is more than 50 times of that OH physicians serve in Finland (5).

In terms of occupational nurses, their role has been dramatically ignored in the field of SMEs since only specified firms, usually large ones, are required to employ OH nurses. Even if OH nurse were required as necessary for SMEs, the coming up problem will be the same as what OH physicians facing to, lack of training and staffing. The new revised requirement of OH nurse training is the same as OH physician described above. As to staffing, the registered OH nurses are about 1500. However, the number of active OH nurses is unknown excluding the 305 OH nurses serving at enterprises as fulltime employment. Even if the rest of registered OH nurses were serving for the SMEs, the employees served by an OH nurse at the SMEs are equivalent to the number served by an OH physician, 5,326 workers per OH nurse. This is about 5 folds higher than the workload of Finish OH nurse in 2005 (6).

As to measurement technicians of working environment, it is criticized not because of training but of quality of their measurement. For the purpose of preventing workers from being exposed to OHS hazards, the measurement technician is required to carry out planning measurement, sampling, and analyzing the samples, and report analyzed results to the employer. Ideally, the technician must plan/design his/her measurement, including substance(s) of sampling, size of sampling, methods of sampling (time, frequency, and volume etc.) after site visit, and analyze the samples with the methods suggested by the CLA, explain the results measured , and give recommendations for further improvements (Lin, 2002: 15-16). Nevertheless, the measurements carried out by the technicians did not often comply with the procedure (Lin, 2002: 17-19). There are at least three aspects of problems involved in this practice of working environment measurement, training, regulating, and cost burden. Lin Jin-Ji, the former Director of the Department of Labor Safety and Health (DDLH), CLA, has reveled training and regulating issues by saying that “to enhance training for increasing measurement technician’s abilities of recognizing environmental hazards, assessing results of measurement, and improving working environment” and “to enhance
auditing, managing, and inspecting the measurement institutes, their measurement technicians, and the recognized laboratories” (Lin, 2002: 21).

For the part of auditing and inspecting, the Department of Labor Safety and Health has not fulfilled their promise. First of all, the DDLH has not known how many enterprises are hazardous firms because it is subject to employers’ report. What they have is the hazardous firms that are reported themselves to, and the firms found out during the course of labour inspection implemented by the CLA. Secondly, there is no statistics related to scales of enterprises that have to carry out working environment measurement. As a result, it is difficult to know how hazardous industries are clustered, SMEs in particular, since they are more vulnerable than the large firms. Thirdly, the CLA replaces its authority of inspection by entrusting the non-government organization, Taiwan Accreditation Foundation (TAF) to evaluate measurement institutes, and the CLA’s officer confirmed that “the inspecting authority will recognize the measurement institutes which passed the assessment conducted by academic (the TAF)” (D, personal communication, 28 August 2009). Fourthly, many measurement institutes do not carry out the standardized procedure of working environment measurement. The entrusted TFA point out “many measurement institutes did not prepare comprehensive designation of working environment measurement. Therefore, the measured points on the site may not be adequate enough for sampling. That is, the sampling points were not representative or precise enough. As a result, there is a difference between the concentration amount of hazards measured and the real one.” (T, personal communication, 28 August 2009)

It is unfair to say that the entrusted organization is clearly insufficient since the TFA was just entrusted by the CLA on 25 May 2009 (TFA, 2009). However, accreditation system such as OHS management system verified under ISO 14000 series or OSHAS 18000 series are questionable because their auditing practice very highly depends on auditors without OHS training background and documents review rather than on site visiting. How the TFA can assure its accreditation workable needs to be evaluated in the feature.

**Deficit of finance**

Another challenge of OHS management system is financial shortage. For sake of employees in SMEs, Japan and Finland governments has financially support OH services for providing measurement of hazardous exposure, analysis of the exposure, recommendation of eliminating risk of exposure by creating OH services at local level (7) mainly with technical
and knowledge support from government agencies related to OHS affairs (Mizoue et al., 1999; Ministry of Social Affairs and Health, 2006; Lamberg et al., 2007). The financing bodies are different from Japan to Finland. In Japan, the Minister of Labour pays Regional Occupational Health Centers OH services according to number served, and this subsidy is set a ceiling at 50,000 US dollars per center annually (MUTO and TAKATA, 2001: 145). In Finland, the payment for SMEs OH services is from the Social Insurance Institution. The subsidy is to reimburse employers. On the contrary, the MOL is financing to reimburse OH providers.

In 2002, the Bureau of National Health (BNH) promoted occupational health services and protection by subsided four occupational medical services and health protection centers. Based on curative approach, the centers provided site visit, diagnosis and treatment of occupational disease, and recommendation for return to work (Wong, 2005: 42). With a limited budget, each center had two OH physicians and one OH nurse, and sometimes invited psychologist, industrial hygienist to joint the team. They were obligated to provide services to SMEs with employees less than 300 under the contract with the BNH. In addition, they had to encourage health promotion, reporting system of occupational disease, assist to increase the quality of appointed pre-employee and employee health examination institutes, develop educational materials for health promotion, initiate model of health promotion etc. (Chuang, 2004). However, there were only ten employers/enterprises came for OH consultation far less than OH physicians actively held educational lectures on sites. By the way, in which all served enterprises regardless the forms of services provided by the centers large firms were evidently much more than SMEs. This is because that the SMEs were not required to have OH services from professionals but the enterprises involved in hazards that needed to be measured. Some OH physicians said that the subsidies were not enough for the cost of their specialty department. Gradually, these centers are mainly replaced by occupational diagnosis and curative centers financed by the CLA although the BNH is still pay attention on the issue (Peng, personal communication, 1 Sep 2009).

2003, the CLA entrusted the first occupational diagnosis and curative centers (ODCCs) with financial support, and expend nationwide in the recent years. There are 9 ODCCs with the same service model – case-management based diagnosis, curative, and return-to-work. The ODDCs have a headquarter, the Center of Occupational Disease and Injury, to manage all kinds of necessary data collected during their services, and already built up regional service-
networks linked to local health providers with OH physicians. At present, two classified budgets, financed from the Workers’ Compensation Fund under the Bureau of Labor Insurance governance, go to these centers and networks in a total 1.2 million US dollars (equivalent to 40.4 million NT dollars) in this fiscal year. 1.05 million US dollars (equivalent to 30.4 million NT dollars) are located to the entrusted ODCCs for providing the services mentioned above plus a new measure, preventive OH services for SMEs with employees less than 300, commenced on 20 Aug 2009. The rest, 0.15 million US dollars (equivalent to 0.6 million NT dollars) are shared by the network-OH providers for diagnosis and curative matters at rate around 76 US dollars (equivalent to 2,500 NT dollars) per-person served (Peng, personal communication, 1 Sep 2009).

Although the fiscal budget, entrusted OH providers, and served number in persons are increased, huge portion of the budget still goes to reactive OH prevention through occupational medical services provided by the ODDCs and 46 local networked hospitals. Only very little and limited amount are located to the ODCCs for proactive OH services with a team including OH physicians, OH nurses, industrial hygienists, measurement technicians, at the SMEs, 3 enterprises can be served per ODDc only. That is, 27 SMEs, which is 22 of million SMEs, can be financed for such preventive OH services. In whatever sense, this fiscal scale is far less than that of 98 million US dollars in Japan without limitation of served number of SMEs (Muto and Takata, 2001), or inferior to the 50% of reimbursement in necessary OH services for SMEs in Finland (European Commission, 2002: 5-6; Mizoue et al., 1999).

More powerful regulation

There are two main aspects, regulation and enforcement, that causes to the problems of restricted coverage, difficulties of OH services, and deficit finance.

In terms of regulation, the dominant legal framework of OH services was situated at the LSHL passed by the Parliament, and other ordinances initiated by the CLA. The coverage of LSHL, duties and qualifications of OH professionals, and obligations of employers for establishing OHS management system, OH unit providing services are subject to OHS ordinances formatted by the CLA. As a result, the LSHMOSO excludes SMEs from having an adequate OHS management system that weakens capability of OH prevention. Even if the SMEs were included in the ordinance, their financial scale could afford OH services and management required.
In terms OH services, the current Worker Health Protection Rule also narrows up the sizes of firm that shall provide OH services to large enterprises, and there is nothing to do with what kind of OH services are required for SMEs to comply to. In fact, the employees of SMEs are at a vacuum. Even the CLA stared to finance OH providers it is still at the level of reactive matters rather than proactive ones. The newest program that actually provides OH services for the SMEs through the ODDCs is not only too far to protect the employees but also lack of legitimacy for OH professionals to go inside of the SMEs and collect exposure data for proactive prevention.

At the enforcement level, the CLA seems to be reluctant play its role as an OHS authority through labor inspection. As can be seen, the required periodical health examination is poorly carried out by all enterprises at the rate of 38.2 % in 2007, the nearest survey conducted by the IOSH. The SMEs are the lowest group in terms of completed rates, 13% for enterprises less than 9 employees, 31% for that between 10 and 49 employees, 52% for that between 50-99 employees, 65% for that between 100-499, and 81% for the enterprises more than 500 employees (Xu and Li, 2007: 54-55). It is impossible for carry out proactive OH services for SMEs at such low health examination rate unless the CLA exercises its inspection power and or finances to the SMEs adequately since the CLA almost do nothing to improve the examination rate but published the results of survey.

As to surveillance of working environment measurement, the CLA at least has to evaluate the works done by the measurement institutes. According to the 2008 labor inspection statistics of working environment measurement in solvents, specified chemicals, dusts, and lead, between 7.7% and 40.33% of all inspected enterprises commencing environment measuring, including the SMEs, are the enterprises, still violated the WEMO. That means, there is a need to change the current supervision mechanism of working environment measurement commenced by the verified measurement institutes. As described above, whether the TFA is an adequate entrusted agency to verify and audit the measurement institutes is open to discussion. The CLA must review this issue at the global level.

However, one thing, overwork/tress, has been ignored by the working environment measurement regulation. Overwork has been related to fatigue, cardiovascular diseases, hyper pressure, or even death (Nishiyama and Johnson, 1997; Palumbo and Herbig, 1994). The OHS laws in Japan and Finland have considered working-hour or continual stress as one of the hazards that must be dealt (JICOSH, 2008; Ministry of Social Affairs and Health, 2003).
Death from overwork and suicide has been major OHS issues, and Japanese OH authority has made response by requiring employers to reduce overtime working, to provide OH physicians’ guidance to workers who are engaged in working hours more than the karoshi standard (Muto, 2007: 174). Death from overwork has been an important issue of OHS topics in Taiwan. The IOSH creates the “Kroshi Special Zone” on its website providing useful information related death from overwork, including news, research results, diagnosis standard, the Japanese karoshi standard, chronic fatigue syndrome, and stress scale (IOSH, 2008). These efforts and achievements have not driven to a force on recognizing overwork as a hazardous exposure. Similarly, psychosocial factors related to occupational mental health are also neglected in the same context of death from overwork.

The latest legislation is that the CLA are currently proposing amendment version of the LSHL, including renamed the LSHL to Occupational Safety and Health Law, officially legalized OH professionals’ role and duties, and the obligations of employers to provide OH services and its contents with the aim of connecting to the OH service structure, including the Center of Occupational Disease and Injury, ODDCs, and the networked OH providers. The duties and personnel of working environment measurement is also one of the main parts of the proposed revision. In addition, the most important part is all the SMEs will be covered under the proposed paragraphs. In other words, official finance of OH services will be provided if the Parliament passes it. The version proposed is a kind of duplication from the Japanese Industrial Safety and Health Law (Peng, personal communication, 1 Sep 2009). It seems that CLA will play a significant role on OHS intervention by introducing revised form of OH service structure. How far the proposed version can be accepted and implemented are still unknown since it has not been publicized for discussion.

**Conclusion**

The LSHL has been enforced since 1974. It was a vet progressive legislation at that time in comparison with Occupational Safety and Health Act 1970 in US, Industrial Health and Safety Law 1972 in Japan, or the Health and Safety at Work Act 1974 in UK. However, Taiwan is still suffering from high occupational injury rate and dramatically under-reported occupational disease. The LSHL and its bylaws pay a lot of attention to large firms rather than SMEs. Regulations related to OHS management system, OH services, duties of OHS professionals and providers, obligations of employers providing OH services, limitation of
psychosocial exposure, and government expenditure of OH matters do little on helping SMEs’ employers to maintain their employees’ health and safety.

As can be seen, the adequacy of OHS services structure is so inadequate as to unaccommodating to the SMEs’ OHS problems occurred in the globalized world, whish has squeezed jobs with higher risk from the large firms to SMEs (Quinlan et al., 1999). For those SMEs which can not set up their won OHS management organizations, medical units, or hire OHS professionals must be provided with outside OHS resources by the government. The current informal OH services structure must be made available and accessible to the SMEs’ employees with sufficient budget from the government by revising the LSHL instead of the current ordinances.

The surveillance mechanism of working environment measurement must be reevaluated since there has been evident literature regarding to the ineffectiveness of non-public and private on accreditation system of OHS management. Such system has been just paid attention to paper works of standardized procedure without walking though the entire management process that the system wants to achieve. It is possible to occur if there is a lack of mechanism to oversee what TFA has done. Thus, the CLA has to trace those inspected firms with violation of working environment measurement in order to assure the quality of accreditation system run by the TFA. In addition, psychosocial factors related to over work, tress, fatigue, and metal health problems must be officially recognized as hazards, and measured from time to time.

Finally, the LSHL must be amended to include main structure of OHS system, OH service framework, duties of OH professionals regarding to proactive prevention activities, obligations of SMEs employers in compliance with recommendations made by OH professionals, enclosure of regulating environment measurement of workplace, legalized psychosocial factors related to physical, biological, and mental health as hazards that must be measured.
Notes:
1. The enterprises or establishment must set up a top OHS management unit.
2. The enterprises or establishment can choose to set up a top OHS management unit or not.
3. The qualification of OHS manager is divided into three categories: Grade 1, Grade 2, and Grade 3. Grade 3 manager can be the employer her/himself.
4. 2 hours for employees between 300 and 999; 9 hours for employees over 1000
5. There were 2461 OH physicians serving for 2.6 million workers by 2005 in Finland (Ministry of Social Affairs and Health, 2006: 50).
6. ibid.
7. Regional Occupational Health Centers are the OH services providers in Japan, and municipal health care centers and private medical service providers are the two most common service models in Finland (Mizoue et al., 1999: 115, 116, and 118-119; Ministry of Social Affairs and Health, 2006: 14, and 38; Lamberg et al., 2007: 42).

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Taichung: Feng Chia University.
WS7a.1-3 Abstract

‘Effect of policy, politics and structures on intervention for sustainable prevention in small businesses’

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Problem statement: Québec has yet to come up with adapted approaches for small businesses (SBs). The effect of institutional factors on interventions for SB’s is considered.

Method(s): Data from 17 semi-directed interviews with policy makers and OHS officials, worksite inspectors, occupational health teams and representatives from employers and workers associations were subjected to qualitative analysis.

Results: Orientations of Québec OHS legislation at the end of the 1970’s were based on accident stats for sectors which concentrated larger shares of the labor force. Absence of SB employers and workers representatives at the time of policy elaboration and from ongoing decision making has reinforced cliché representations of SBs and contributed to the restriction of prevention obligations as well as services and controls to businesses with than more than 20 employees in 15 relative-risk sectors. Bipartite management of OHS in the administrative structure of the system as well as in workplaces was meant to build consensus and to avoid shopfloor negotiations of OHS. Participation of unionized workers in large businesses (LBs) via OHS committees has effectively put pressure towards achieving results, but the absence of unions in SBs has left 35% of the labor force with little capacity to do the same, no access to OHS training funds and largely without protection. Many experts now want a larger share of interventions aimed at SBs. Decisions concerning reallocation of human and financial resources for intervention and coordination between structures with different rationalities are affected by political disputes. Economic pressure towards auto-regulation and financial incentives also affects the capacity of the system to support sustainable prevention in SBs.

Conclusions: Informants from OHS decision making and intervention describe how institutional factors play a significant role in achieving sustainable prevention in SB’s. Questions raised by SBs in fact reveal a lot of the tensions in OHS institutions.
Presentations, session WS7a.2
Chair: Per Langaa Jensen

Time: Friday 23 October, 11.15-12.45
Location: B-10
Abstract:

'A Systematic Review of Qualitative and Quantitative Literature on Occupational Health and Safety in Small Enterprises'

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Although small enterprises comprise an increasingly large portion of businesses in advanced economies, we continue to consider them as a non-standard form of employment. This paper contributes to our mainstream understanding of work and health in small enterprises by describing the results of a mixed-method systematic review of literature that addressed the question: “What understandings, processes and interventions influence occupational health and safety in small businesses?”

The review was conducted in 2008 and focused on workplaces with 100 or fewer employees and peer-reviewed literature in a broad range of languages. It was not limited by publication date and included both qualitative studies and quantitative intervention studies. Multidisciplinary research teams with diverse methodological specialties assessed the quality of all relevant articles and synthesized findings from studies assessed as medium or high quality. The qualitative and quantitative literature were reviewed and synthesized separately and integrated where findings were complementary.

The qualitative literature identified distinct features of small firms, such as informal relations, that shaped daily working practices including the organization of occupational health and safety. Additionally, this literature identified broader structural and policy contexts, such as rule exemptions and subcontracting arrangements, which create particular conditions for small enterprise workplace health. The quantitative literature focused on health and safety interventions and found that interventions with multiple components, such as both safety audits and training, were most beneficial. Overall, the literatures pointed to the need to consider sector-specific conditions of small enterprises, including those unique to small firms in the growing and global high-tech sector. The literatures also point to research
gaps such as few qualitative studies addressing disability management and return-to-work and a lack of good quality intervention studies.
WS7a.2-2 Abstract:

‘Strategies for the implementation of health and safety measures in small businesses employing an immigrant workforce’
by Sylvie Gravel, Ph.D., Professor, Department of Organization and Human Resources, School of Management, University of Quebec at Montreal, Quebec, Canada
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In large urban centres, immigrant workers hold jobs in companies in which the prevalence of occupational injuries is high, yet they very often do not know that they can play a role and be involved in implementing health and safety measures. At the same time, the small companies that hire immigrant workers are more concerned with competition and market globalization and tend, accordingly, to overlook or ignore statutory health and safety (OHS) measures.

An exploratory study compares strategies for managing OHS measures in small Canadian companies with 10 to 50 employees operating in an urban setting, the city of Montreal. The group under study, 20 companies, one quarter (25%) of whose workforce is made up of workers born outside Canada, will be compared with the control group of 10 companies employing few or no immigrant workers.

The purpose of the study is to understand the challenges of managing OHS measures when the workforce is economically insecure and unaware of legal rules and workers’ obligations as regards OHS. Preliminary results indicate that the two groups of companies tend to differ in terms of three of the dimensions studied:
- the arguments put forward by businesses to justify their commitment or withdrawal;
- the technical capabilities and prevention policies that workers and employers have available to them;
- the dynamics between actors within the company and their relations with external experts in implementing OHS measures.

Generally, company managers respond to accidents in good faith but neglect prevention measures because they lack time, knowledge or organizational support. OHS committees are non-existent or non-operational. Immigrant workers invited to join their company’s joint OHS committee are uncomfortable with this democratic exercise in which bosses and employees sit down together.
Paper

Strategies to develop and maintain occupational health and safety measures in small businesses employing immigrant workers in an urban area in Montreal

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Strategies to develop and maintain occupational health and safety measures in small businesses employing immigrant workers in the urban area of Montreal

In large urban centres, immigrants are employed by businesses in which there is a high prevalence of serious and fatal occupational injuries. In Montreal, professionals in the field have observed that small businesses (SB) employing immigrants fail or neglect to appropriate the management of occupational health and safety measures. According to OHS professionals numerous factors hamper appropriation including managers’ and workers’ understanding of health and safety law. This project presents our preliminary findings regarding this lack of understanding with respect to the following: 1) arguments for appropriation; 2) technical and political capacities for prevention activities; and 3) principal internal actors. A prospective study design with a control group is used. The observation sample comprises 20 SBs that meet the following criteria: 1) The enterprise has fewer than 50 employees; and 2) at least 25% of the workers were born outside the country. The control group is comprised of 10 SBs that are similar but employ fewer (<25%) immigrant workers. Preliminary findings indicate that workers and employers have problems understanding OHS regulations. The barriers to comprehension are not solely linguistic in nature; the actors also have difficulty grasping the culture of OHS, particularly the basic principle of worker-employer parity.

Background

This project grew out of the concerns voiced by occupational health and safety professionals (physicians, nurses, hygienists, audiologists, and toxicologists) who work in a primary healthcare facility, the Centre des Services Sociaux et de Santé (CSSS) de la Montagne. The health centre’s territory covers a densely populated urban area in Montreal, 50% of whose residents are immigrants. There are 14,903 companies producing goods and services in the area, and 89% of them have 50 or fewer employees (CSSS de la Montagne, 2007). OHS
professionals associate problems in appropriating safety management in small businesses (SB) with those having a largely immigrant workforce. However, it is not possible to draw a direct connection between such problems and the makeup of the workforce because the public record contains no data on ethnic, migration or linguistic background.

In their day-to-day interventions, OHS professionals perceive three factors that hamper appropriation of corrective and preventive measures related to accidents or occupational diseases in small businesses. First, market globalization and international competition have led companies to focus on survival strategies and maintaining production to the detriment of their responsibility to provide workers with a safe and healthy environment. Second, small-business managers see prevention and protection measures as a cost rather than an investment. Third, the way workers and managers understand OHS law is determined by their cultural experience of the business and industrial environment in the host society and elsewhere.

Many studies have dealt with the first two points. However, although the literature has touched on the issue of OHS prevention problems in a multiethnic setting, few studies have dealt with it. Research in Australia by Quinlan et al. (2004, 1999) indicates that there is a direct link between market globalization and a weakened company commitment to health and safety. Studies demonstrating the benefits of investing in OHS cannot counter a company’s tendency to disregard workplace safety in the face of economic instability; this issue has been of constant concern to proponents of Occupational Health and Safety Management (Frick et al., 2000). The perception by people who run small businesses that it does not pay to invest in OHS is that much more firmly entrenched when the workforce can be easily replaced (Mayer et al., 1997).

The third point—that the capacity of SB managers and workers to develop a health and safety culture is determined by their cultural experience of the business and industrial environment in the host society—is seldom discussed in the literature (Vickers et al., 2003). There are studies that document immigrant workers’ problems and their poor understanding of their rights to receive compensation and to keep their job after an occupational injury (Gravel, 2006)). Other studies have noted their lack of involvement in OHS measures (Soto et al., 1997; Stange et al., 1991). However, only one of the recently reviewed studies addresses the issue of their ability to understand the law on prevention (Amodu, 2008).

This article presents the preliminary results of a study whose purpose is to document the capacity of managers and workers in small businesses employing a majority of immigrant
workers to develop a corporate health and safety culture. The preliminary findings comprise the observations made over the course of the first year of research regarding the dynamics of safety-management appropriation in 10 companies. These businesses constitute one third of the projected sample for the study, which is to be completed in 2011. This comparative study seeks to cast light on the dynamics that characterize appropriation by the companies—which may be deemed complete, neglected, abandoned, or unknown—as determined by OHS professionals.

What is known on the subject

Difficulty in appropriating safety management is typical of large, cosmopolitan, Western cities. The studies by Quinlan et al. (2004) have established a link between weakened company commitment to OHS and market globalization. This observation can be generalized to many enterprises in Western countries, where SBs are more vulnerable to shifting competitive circumstances (Ahonen et al., 2007; Dollard, 2006). Managers who have to contend with a decline in business and workers threatened with possible job loss focus on developing survival strategies, the first of which is most often to reduce the costs of production, including OHS costs (Mayhew et al., 2002). Even though many studies have demonstrated the benefits of investing in health and safety, they cannot counter the tendency by companies to cut such investment in the face of economic instability (Dorman, 2000). Since Henrich’s studies (1931) on the direct and indirect costs of occupational injuries, proponents of OHS management (OSH-M) have tried to develop incentives for businesspeople to implement and sustain health and safety measures (Biddle et al., 2005; Dorman, 2000; Frick et al., 2000). International competition, however, has led small businesspeople to rely on being able to replace workers easily rather than on trying to prevent injuries (Mayhew et al., 1997). Meanwhile, unskilled and low-skilled workers, including immigrants, put little or no effort into health and safety since they believe there is little to gain from such measures, which might even compromise their employment (Stange et al., 1991). None of the studies reviewed on OHS management deals with the way health and safety law is interpreted in an intercultural setting. Whatever research has been conducted on intercultural management has focused on problems that arise during corporate mergers or international expansion but has never dealt with issues of compliance with national OHS regulations (Bertrand, 2006; Meier, 2006; Coeurderoy, 2005). The literature only rarely
considers the culture shock that may be provoked by occupational health and safety values and the philosophy of safety management in an intercultural setting (Aktouf, 2006).

Over the past few years, a series of studies have looked at which processes might be conducive to the appropriation of safety management and the emergence of an OHS culture in SBs. However, they have only rarely dealt with the ethnocultural composition of the workforce. Rather, the research has documented the influence of structural characteristics of businesses on the development and implementation of OHS promotion and prevention activities. The point of departure for the studies is the observation by external OHS actors that they are powerless in so far as their efforts cannot produce a culture of health and safety in SBs (Charpentier-Roy et al., 2001).

The implementation of OHS measures is not only affected by structural factors, but is also influenced by the dynamics between internal actors (employers, workers, unions, and joint committees) and external actors (consultants, prevention mutual group advisors and inspectors). Baril-Gingras et al. (2006) developed a conceptual framework centring on the relationship between workers and managers. The framework comprises four dimensions: 1) structural characteristics of the enterprise and its workforce; 2) the actors’ technical and political capacity for prevention activities; 3) internal regulation and control methods; and 4) state regulations affecting implementation. Baril-Gingras et al. (2004) observed that recurrent transformations in the implementation of OHS measures can be attributed to the investment of internal resources, which external OHS workers are in no position to replace because they lack influence. Small businesses display many variations in the way they appropriate OHS measures (Marchand et al., 2001; Champoux et al., 1999). They tend to rely on the more or less formal participation of an OHS committee, but participation can be easily undermined by such structural conditions as high staff turnover (Rinefort et al., 1998). In general, conditions are deemed more conducive to the implementation of prevention activities when a firm’s structural characteristics resemble those of large, unionized companies with a mainly male, skilled, middle-aged, white workforce.

For workers to make an effective contribution, the organization must provide for them to be trained and informed and give them opportunities to put forward their views and establish channels of communication with management (Walters, 2004; Eakin et al., 1998). Many OHS systems are based on such mechanisms as OHS committees that have equal employer-worker
participation, (Simard, 1997). However, in seeking solutions, SB employers generally make their analyses on their own without either calling on external expertise or conferring with their employees (Dorman, 2000). Managers do not generally conduct consultations in a spirit of collegiality. Newby (1977) found that on farms a pattern of paternalistic relations and a mode of production that entails interdependence and cooperation are not necessarily conducive to a dialogue of equals about OHS. However, even workers in small agricultural operations tend to be more involved in safety management if they are members of an association or union (Walters, 2004). Such associations fulfil an educational and communications function and encourage workers to leverage change in their locality and in the companies that employ them.

In an urban setting, it is almost unthinkable to group workers from small businesses together in a local association. In North America’s large cities, many immigrants find their first job in the host society in businesses where the prevalence of occupational injury is high (Quandt et al., 2001; California Working Immigrant Safety and Health, 2002). In California, the relative risk of occupational illness or injury due to accident is thus 2.2 for Hispanic workers as compared to Whites and 1.4 as compared to Blacks (Robinson, 1989). The prevalence of nonfatal, irreversible injuries is also higher among immigrant workers; amputations occur twice as often among Hispanics as among Whites or African Americans (Sorock et al., 1993).

The workers in question have no special skills, are unaware of their rights as employees and know nothing about the role they can play or about the potential they have to participate in OHS committees. They put little effort (or have difficulty putting any effort) into collective actions to improve health and safety in their work environment for fear of reprisal by their employer (Guthrie et al., 2005; Lashay et al., 2002; Sum, 1996). Moreover, problems of communication between co-workers can leave them isolated. Unless informed by a compatriot, allophone workers may not understand danger signs or emergency orders in critical situations and thus may face an increased risk of accident (Premji et al., 2008; Nash, 2001; Krahn et al., 1990). Studies in the United States have further demonstrated that workers from ethnocultural communities (for example, African Americans and Hispanic Americans) do not feel that proposals on health and safety measures affect them (Williams, 2001).
Little work has been done to explore the dynamics between the different actors—employers, employees, and consultants—in the implementation of OHS measures in small businesses with a high proportion of immigrant workers either in Canada or elsewhere (Wickramasekara, 2007). The lack of research is cause for concern, particularly since economic growth in many Western countries turns in large measure on a massive, continuous flow of foreign labour (McCauley, 2005; Pascoe et al., 2002). In this project we propose to explore strategies that may foster appropriation and maintenance of safety measures as well as the conditions for developing a health and safety culture in small enterprises with a large immigrant workforce. Our findings will make a significant contribution to OHS practice in large, cosmopolitan cities.

**Study objectives**

This prospective study seeks to understand the difficulties involved in appropriating workplace-safety measures in small businesses (SBs) with a high proportion (≥25%) of immigrant workers so that strategies can be developed to overcome them. We hypothesize that immigrants who know little or nothing about their rights as workers have difficulty fulfilling a role of influencing and contributing to the appropriation of safety management. In light of this hypothesis, we have formulated the following research questions:

Which strategies and arguments create a synergy conducive to appropriating management of OHS measures in a context of competition and market globalization that threatens production and profitability in small businesses?

How can the appropriation of safety management be sustained so that a culture of workplace safety may be created in small businesses with a large immigrant workforce?

This study is part of a broader process aimed at improving services to SBs in an industrial area of Montreal where territories had recently been amalgamated. The team of OHS professionals judged that this period of change would give them an excellent opportunity to better relations with small businesses. The project comprises three objectives:

1. to describe the arguments that businesses use to explain their involvement in or withdrawal from OHS programs;
2. to determine workers’ and employers’ respective technical and political capacities for prevention activities and the relations between actors in implementing measures to
prevent and protect against occupational injury (accident or illness);
3. to identify the main internal actors (managers, workers, OHS-committee members) and external actors (OHS professionals from the CSSS, advisors from joint sector-based association, OHS consultants) who can change or may have changed the way workplace-health programs are implemented.

**Methods**

A prospective design with a control group is used to study the way OHS measures are implemented in an urban setting in SBs with a high proportion of immigrant workers. The SBs in the target industrial territory are representative of small companies employing immigrant workers in urban areas.

The study population is comprised of unionized and nonunionized private-sector SBs with fewer than 50 workers at least 25% of whom are immigrants (that is, born outside Canada). Neither immigration status (citizen, landed immigrant, refugee, or awaiting status) nor length of stay in Canada is considered. The research team uses the CSSS health and safety professionals’ empirical knowledge to draw up a profile of the workforce in each study enterprise beforehand. The profile will subsequently be validated with employers or their representatives during the OHS professionals’ regular visits to the company.

The judgment sample consists of about 20 establishments in which one or more professionals from any discipline on the CSSS de la Montagne’s OHS team has conducted an intervention since June 2008. The target sample represents 21% of the potential pool of businesses in the year after merger of the territories (CSSS de la Montagne, 2007). The OHS professionals’ knowledge of the companies will be used to select study enterprises that fulfill two inclusion criteria: employing 50 or fewer people and having a workforce at least 25% of which is made up of immigrants.

The control group is composed of 8 to 10 SBs that fulfill the same criteria but do not employ as many immigrants. The enterprises in the control group thus employ fewer than 50 workers, operate in industrial sectors comparable to those of the companies in the observation sample and have a workforce over 75% of which is Canadian born.

In the strategy to recruit businesses for the observation sample, all enterprises that meet the inclusion criteria in terms of size, immigrant profile and OHS-team intervention are asked to take part. Four types of interventions are considered: 1) interventions that are part of
company-specific health programs related to the risks associated with a type of production; 2) interventions that are part of targeted intervention programs; 3) interventions concerning non-standard exposure in a particular sector of production; and 4) interventions in response to a company’s request for prevention advice. The first 30 businesses (20 observation SBs, 10 control SBs) drawn from the list of companies in which an intervention was performed between June 1st 2008 and 31 May 2009 will be used in the study. Each company withdrawn from the sample will be replaced by another one without regard to the type of intervention. This strategy will allow us to include both enterprises that have been successful and those that have encountered difficulties in implementing OHS measures.

Each of the three research objectives involves different study variables. For the first one, describing the arguments businesses advance to explain their involvement in or withdrawal from OHS programs, the study variables are 16 arguments drawn from a range of studies. For the second objective, determining workers’ and employers’ technical and political capacities for prevention activities and the relations between actors who have been released from regular work to implement OHS measures, the study variables are the following: the needs, expectations and perceptions of the actors with respect to various factors and competencies (training, resources for information or expertise, attitudes and value accorded to OHS, knowledge of the law); and the contribution of the people released from work to implement OHS measures. For the third study objective, identifying the main internal and external actors who can change or may have changed the strategic direction that companies provide in implementing an OHS program, the study variables are as follows: the roles and responsibilities of employers and workers in implementing OHS measures; and the roles and responsibilities of external health and safety professionals.

The control variables are: a) known risk factors in the enterprise; b) the frequency, seriousness and recurrence of known accidents or occupational illnesses as recorded in company files; c) structural characteristics of the company, including size, union associations and OHS committees; d) management characteristics (family owned, independent, subsidiary, franchise, subcontractor); e) number of OHS interventions in the company; and f) type of expertise required for the interventions.

The sources, collection and processing of the data are similar for all three study objectives. The sources of information are the employers and workers in the company and the OHS
professionals from the CSSSs that are partners in the project. Data on the views of employers and workers are collected in face-to-face interviews and from observations made by the professionals during their visits. The interviews are conducted on the business premises by the principal investigator accompanied by a research assistant. To avoid any suspicion on the part of the company, the interviews are not taped. Records are immediately made of the notes taken by the investigator and the research assistant to make sure the information gleaned is faithfully rendered. The observations of OHS professionals from the CSSS are collected in a second interview with one or sometimes two professionals working with the same company who offer their respective observations. The data are entered on Excel and Nvivo software and processed to categorize the appropriation of safety management as complete, neglected, abandoned, or unknown. The categories will be used in a comparative analysis of the case studies of the observation and control SBs.

For instance, data gathering began on June 1st 2008 and will continue until 30 May 2010. We estimate that each company will be visited at least twice over the 30-month observation period. Data will be collected biannually from CSSS administrative files to complement the information on how the implementation of OHS plans and measures is proceeding. The analytical model used is based on one developed by Baril-Gingras et al. (2004, 2006) that focuses on the elements of worker-manager dynamics in appropriating safety management. The model has been augmented by an examination of immigrant workers’ limitations as actors in safety-management appropriation in the SBs that employ them. Limitations associated with barriers to access to compensation are considered: including fear of reprisal (for example, dismissal and loss of income); communication problems (such as those involving translation and comprehension of OHS instructions and measures); and difficulty adapting to management structures (such as OHS joint committees). This model will provide a point of reference for the different analyses.
The analytic framework examines the way the following interactions relate to each other:

**Analytic framework**
Managing diversity in the implementation of occupational health and safety measures in small businesses with an immigrant workforce

**Axe 1: Workforce**

- **Workforce/immigration profile**
- **Knowledge/rights/capacities/exercise of rights**

**Axe 2: Labour Market**

- **Diversity of work environment**
- **SB structural features**

**Axe 3: Business**

- **Type of products/services**
- **Nature of OHS intervention**

**Axe 4: Appropriation of safety management**

- **Complete**
- **Neglected**
- **Abandoned**
- **Unknown**

**Worker-employer dynamics/Appropriation of management of safety measures**

Figure 1

**Results**

This article is a discussion of the preliminary, partial results of the study obtained over the course of the first year of data gathering from June 2008 to June 2009; the actual observation period will continue for another 18 months. The interviews at the 10 companies and the observations of the OHS professionals working with them are described here in summary form. Since the observation period has not ended, it is premature to present a content analysis.

The interviewees were, for the most part, managers or executives of the participating enterprises. In these small businesses, one person often wears several hats and so may act as manager, personnel officer and prevention officer. In no case were we able to meet worker members of OHS committees.
Of the ten companies that have already taken part in the study, eight are in the study group, and two are in the control group. Each employs 50 or fewer workers although one has additional seasonal employees. There is a wide spread ranging from 20% to 90% in the proportion of immigrant workers. For the first year of data gathering, the participating companies were in the wood-processing, fabricated-metal-product and food sectors, and they present chemical (4), ergonomic (1) and thermal hazards (2) as well as injuries related to falls (1) and cuts (2). There are also cases of occupational illnesses, wood-dust related asthma (2) and deafness (1). Some companies present more than one hazard. Although only two of the companies are unionized, all but one has an OHS committee. Still, employers and workers are not necessarily equally represented, and the committees operate on an ad hoc basis as problems occur and emergencies arise.

A. Arguments to explain appropriation of safety management

The scientific and professional literature presents many arguments that illustrate the managers’, supervisors’ and workers’ attitudes to appropriating management of health and safety measures. The preliminary results indicate that managers tend to make a good number of arguments in favour of OHS: it improves worker health, demonstrates the employer’s concern for the workers, makes workers happier, and improves product quality. These arguments are conducive to worker retention and seem to be more common in companies suffering a shortage of labour.

Representatives of small businesses also make unfavourable arguments, though: OHS increases production costs; takes up too much time, slows production, requires special skills, constitutes a series of constraints, and results in the proliferation of accident and illness reports. Obviously, production costs are a primary consideration in these enterprises, which must continually balance investment in production against immediate returns.

Even workers who are member of OHS joint committees raise concerns that health and safety measures slow production or take up too much time. Production constraints are such that workers too are somewhat hesitant to adopt new OHS measures out of concern for their job. They see such measures primarily as restricting their movements and their ability to carry out their duties easily. Some managers maintain that it is harder to overcome resistance to safe
behaviour among veteran employees, for they have developed work methods that fit into their particular comfort zone.

In short, all the actors proffer arguments both for and against appropriation. Only businesses that have developed an OHS culture adopt attitudes and arguments that are consistent with it. Company size, sector of production and unionization apparently do not serve to promote favourable management attitudes to OHS.

B. Technical and political capacity for implementing OHS measures

The preliminary findings indicate that supervisors are the engines of safety-management appropriation in small businesses as long as they have the support of management. The first of the supervisors’ OHS-related tasks is to give workers initial training in their duties. Seven of the ten participating enterprises provide orientation when a worker is hired; this may take three to four hours depending on the complexity of the tasks. These companies also require workers to take special health and safety training during the year. For instance, sessions deal with safety for industrial-truck operators, emergency measures and evacuation. On average, training takes 10 to 30 hours depending on the type of production and the specific job involved.

Communication problems with allophone personnel in the ten companies in the study arise during both orientation upon hiring and safety training. Instructions on safety, safe work methods and emergency measures are given in Canada’s official languages, but many workers do not have the necessary language skills when they are hired and develop them only on the job. In a food company, the person in charge of human resources and workplace safety spoke enough Spanish to realize that new Hispanic workers had not understood the safety instructions properly. She therefore had all the training sessions repeated by a more experienced Hispanic employee.

One of the ten businesses went through a major economic downturn and many workers were laid off. The company seized the opportunity to enrol in a regional program to upgrade its workforce and received financial assistance to train all its employees in new procedures, including OHS measures. This company is unique, though, in that it is the only one in our study with a human resources manager, who had developed different worker-training scenarios for periods of slump and growth.
Respondents were also questioned to determine what they knew about the following topics:
a) OHS laws, regulations and standards; b) external resource people; c) risk-evaluation methods; d) the coordination of responsibilities and of corrective measures to be introduced into the workplace. Half the respondents duly recognized that their knowledge of some of these issues was average and, in some cases, limited. One supervisor, a PhD in chemistry who was highly qualified in his field of production, reported that his training in his country of origin in Eastern Europe had not acquainted him with the culture of workplace health and safety that is promoted in North America. He is studying the relevant laws, regulations and standards without a guide or any prior direction. Company representatives were asked about internal verification of OHS measures and how often it takes place. All the businesses have a schedule for checking and maintaining machinery, emergency equipment and evacuation plans. Some make annual audits of specific areas and conduct an investigation when an accident occurs. However, in a fair number of enterprises, these functions are outsourced to external consultants, prevention mutual groups or specialists (for example, ergonomists) who are called on to deal with specific problems.

C. Principal internal and external actors who influence safety management appropriation

The external consultants with the greatest influence on the appropriation of safety management are OHS professionals from the local health and social services centres (CSSS) and health and safety inspectors. The members of the CSSS team—physicians, nurses, hygienists, and audiologists—act as consultants; they do not charge for their services, and they have no binding legal power or authority to impose financial sanctions. In contrast, the inspectors have both legal and financial powers and have the right even to padlock machines and hold up or halt production. The other external actors, the advisors from sector-based associations or prevention mutual groups, seldom have any influence. When asked in which matters the external actors’ influence is felt, respondents said that inspectors and professionals play an important role in improving the evaluation and perception of hazards. However, our respondents maintain, the OHS professionals and inspectors do not change—or only slightly affect—a company’s sense of accountability or its commitment to implementing corrective and preventive measures.
When questioned about the internal actors and their influence, respondents from the companies indicated that, while the OHS committees are undeniably influential, they seldom appropriate the entire process equally well. To find out what members of OHS committees contribute, we broke their duties down into the following four stages: 1) defining a health and safety problem; 2) seeking potential solutions; 3) implementing solutions; and 4) monitoring and making adjustments to solutions that have been implemented. In general, OHS committee members put their time into looking for solutions and spend very little time analyzing problems or remedial effects. In fact, the respondents, including the ones who play a lead role on their company health and safety committee, spend only two to four hours a week on these duties. Except during accident investigations, other members spend even less time. In short, OHS committee members operate reactively, responding to accidents and to suggestions from health and safety professionals or inspectors.

Joint OHS committees have been established in most of the participating companies, but they are not representative of the ethnocultural makeup of the workforce. All the committees hold their meetings and conduct business in one of the two official languages. Communication between management and workers is also in the official languages. On a day-to-day basis, however, workers often converse in their mother tongue. Indeed, in the eight companies with a majority of immigrant workers, we found that the employees used eighteen languages to communicate with each other.

The few immigrants who are members of OHS committee are supervisors who have been in Canada for many years and have worked for their company for over five years. They have better communication skills and so can pass along OHS instructions. However, they are not necessarily better able to comprehend the culture of health and safety or advance the basic principle of employer-worker parity upon which the culture rests. In accordance with this principle, workers of every background should be involved in every stage of the process from analyzing problems, through seeking solutions, to implementing them and evaluating their impact. The notion is apparently not well understood. The democratic implications of the joint employer-worker approach to OHS are not fully realized in the small businesses in the sample. Some of the respondents are aware of this deficiency and attribute it to their limited understanding of the culture of health and safety and to the workers’ lack of interest in getting involved in any duties besides their job.
In short, strategies conducive to the voluntary, democratic appropriation of safety management seem to be lacking in these small businesses. When external actors (OHS professionals and inspectors) propose corrective and preventive measures, the companies offer no objection and adopt them properly. However, it is hard for the businesses to take the time needed to engage in appropriation actions and processes that would entail a contribution on the part of the workers. Language of communication and culture are obstacles, but they do not adequately explain the situation.

**Discussion**

A number of limitations must be considered in discussing the preliminary results. First, the data are incomplete; we are in only the first part of the data collection period, and there are still eighteen months left to complete the sample. Furthermore, the data we have deal with the managers and OHS representatives. Observations for OHS professionals from the CSSSs have been completed for only five of the businesses. An impact analysis comparing the dynamics of appropriation as perceived by the companies to the evaluation of appropriation by the OHS professionals (complete, neglected, abandoned and unknown) is therefore incomplete and premature.

Although the study is incomplete, some of the emergent findings confirm observations made in other studies. Thus, as Amodu (2008) found, business size and structure are not necessarily strong determinants of compliance with OHS regulations. However, the form of implementation measures and regulatory design do strongly influence compliance behaviour. As the preliminary results regarding potentially influential actors indicate, Amodu (2008) found that appropriation in companies is driven by inspectors’ recommendations and accommodative or punitive sanctions. The form of self-regulation is very important in eliciting company compliance. Since managers rarely, if ever, fully and clearly comprehend the regulations that apply to them, the dynamics of company compliance are not easy to understand. In Amodu’s view (2008), compliance is explained by fear of sanction or punishment as well as by regulatory design, the regulatory activities of inspectors in the field, the political and economic environment in which regulations are enacted, and the visibility given to sanctions for violations.
Comprehension problems are, of course, exacerbated in multiethnic, multilingual settings. A number of epidemiological surveillance studies on occupational injuries among immigrant workers have prompted workplace health and safety authorities in California to augment inspection activities in industries employing Hispanic workers and to accredit inspectors fluent in the languages workers speak. Though welcomed, these first steps have been deemed inadequate, and authors such as Brown et al. (2002) have called for more: improved multilingual communication capabilities on the part of agency inspectors; more enforcement operations in high-risk workplaces employing immigrants; and the creation of an Office of Immigrant Workers within the Labor Force Development Agency. According to the British researchers Vickers et al. (2003), given the ethnic “heterogeneity that exists within the small businesses sector”, a “multifaceted” approach is needed to increase “awareness of health and safety issues and [improve] health and safety practices in small businesses”. The authors suggest a series of actions that would be appropriate to all large, cosmopolitan cities: 1) recognizing that the approach to management in small businesses is more informal and reactive than in large ones; 2) increasing inspection visits; 3) working flexibly with partners involved in promoting OHS awareness and good practice; and 4) making information and advice on OHS more readily available from sources that are not associated with punitive sanctions (Vickers et al., 2003). It should be noted that studies show that small businesses already tend to turn to anonymous internet services to assess the extent and significance of hazards to which workers in their sector of production have been exposed (Biddle et al., 2005).

In Manitoba, researchers aware of the importance of immigrant workers to economic growth in their province have launched projects to evaluate the impact of actions to foster immigrant-worker participation in OHS measures (WCB, 2008). The studies will be related to the work of committees with the following terms of reference:

- to draw up two manuals (one for employers and one for employees) on the impact of cultural differences on occupational health and safety;
- to take stock of OHS training material that can overcome language barriers;
- to develop print resources in five languages to help immigrant workers better understand their rights in the workplace and the responsibilities of their employers;
- to put a course for agricultural workers on the Workplace Hazardous Materials Information System (WHMIS) online in five languages.
**Conclusion**

A number of studies have made the same observations: The employment of immigrants is a solution to the problems of labour-force renewal in many countries. However, such workers are overexposed to occupational injuries because, on the one hand, they are concentrated in very high-risk industries and, on the other, they know little or nothing about their rights or duties or about the prevention methods available to them. The problems of linguistic accessibility have been well delineated. Methods have been proposed to correct these problems and to promote cultural adaptations of OHS measures. Still, these processes for improving and developing culturally appropriate health and safety activities seem to miss the essence of preventive health and safety work: joint action and mutual, democratic commitment by employers and employees. It would seem that democracy in small businesses is in and of itself incompatible with maintaining productivity and the work relationship. Though endeavouring in good-faith to transform their OHS-management methods, employers recognize that their understanding of health and safety laws and regulations is at best partial, and they consequently seek support for their efforts.

**References**


Dorman P. 2000. If safety pays, why don’t employers Invest in it? In: Frick K, Jensen PL, Quinlan M, Wilthagen T, eds. Systematic occupational health and safety management:


Abstract:

‘Occupational Health & Safety in Small-to-Medium Meat plants in the West of Ireland’
by Catherine Jordan, MSc, 14 Sycamore Grove, Gort, County Galway, Ireland
John Sheil, PhD, Industrial Engineering, NUI Galway, Ireland.

Problem statement and aim: Health & Safety legislation is relatively new in Ireland, and there are gaps in OH&S awareness, culture, etc. The authors believed this was true for small Meat plants – having worked in Food Safety, one author had knowledge of Meat-plant operations.

OH&S legislation is not user friendly and smaller enterprises can't always afford professional expertise. This can mean ‘avoidance’ of the area, with serious repercussions.

The paper describes an OH&S study in Meat plants in the West of Ireland, whose purpose was to establish a baseline for deeper research which will inform the development of a ‘best practice model’ for smaller operations.

Methods: Selected plants were subjected to direct observation, documentation ‘walkthroughs’ and OH&S audits. The research also employed semi-structured interviews with company management, and questionnaires to capture employee opinion and awareness. This was followed by content and inductive analysis to expose findings.

Results: Larger plants exhibited good OH&S awareness. However, while having documented systems, they exhibited indifference to system implementation. Medium-size plants were aware of legal obligations but OH&S wasn’t a priority. Smaller plants were unaware of their obligations, management systems were non-existent, and safety culture and work practices were poor. The presence of non-native workers exaggerates the effect. Additionally, there was an overall lack of enforcement.

Conclusions: OH&S gets ‘lost’ in smaller plants. Improvement is hindered by lack of resources, poor engagement by governing bodies, the often poor level of education of supervisors, and employment of non-English speaking workers. The results are higher risks of accidents and possible exploitation of employees. Basically, employees end up without a voice and employers without the required knowledge. OH&S in smaller plants must be re-directed by safety professionals. The authors suggest some means whereby this can be achieved. These warrant further study before defining ‘best practice’ for the sector.
Occupational Health & Safety in Small-to-Medium Meat plants in the West of Ireland

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Abstract
Health & Safety legislation is relatively new in Ireland. This paper describes a study of Occupational Health and Safety (OHS) in Meat plants in the West of Ireland. Selected plants were subjected to direct observation and OHS system reviews. The research also employed semi-structured interviews with company personnel, while checklists were used to capture relevant data.

Medium-size plants were aware of legal requirements but OH&S wasn’t a priority. In smaller plants, management were unaware, while systems were non-existent and both safety culture and work practices were poor. Fundamentally, OH&S gets ‘lost’ in smaller plants, being inadequately resourced and compromised by the employment of non-English speaking operatives, poorly educated supervisors and inadequate enforcement. Employees end up without a voice and employers without the required knowledge. OH&S in smaller plants must be innovatively promoted. The authors suggest some means whereby this can be achieved.

Key words
Culture, semi-structured interviews, checklists, enforcement, inductive approach

Introduction
Occupational Health & Safety (OHS) and the challenges it faces have been commanding increasing attention. This can be seen in the extent of the legislation and guidelines now in force compared with the situation twenty, or even ten years ago. Globally, OHS is now well legislated for, but there are many country-to-country variations, with some having more
comprehensive systems than others, and some putting a greater emphasis on compliance and enforcement. Health & Safety legislation is relatively new in Ireland; the first occupational safety act, *THE SAFETY, HEALTH AND WELFARE AT WORK ACT, 1989* was passed into law only twenty years ago, and there are gaps in OH&S awareness, culture, etc. The authors believed this was true for small & medium sized Meat plants; having worked in Food Safety, one author had knowledge of Meat-plant operations. It is widely perceived that OH&S legislation is not user friendly and smaller enterprises can’t always afford professional expertise. Such factors, particularly when combined patchy enforcement can mean ‘avoidance’ of the area, with serious repercussions – see, for example, [www.dol.govt.nz/consultation/interface-project/interface-project.asp](http://www.dol.govt.nz/consultation/interface-project/interface-project.asp).

This research paper is drawn from an OH&S study in Meat plants in the West of Ireland (Jordan, 2008), whose purpose was to establish a baseline for deeper research which will inform the development of a ‘best practice model’ for smaller operations.

**SMEs**

In 2005, there were almost 20 million enterprises within the 27 member countries of the European Union (EU) that were active in non-financial sectors of the economy. The overwhelming majority of these (99.8%) were small to medium sized enterprises (SMEs), with fewer than 250 employees (Schiemann, 2008). Daly (2009) reports that, in Ireland, more than 90% of the approximately 700 food manufacturers are SMEs and that their futures will depend on their capacity to innovate on the basis of new knowledge and skills. Due to the complex nature of SMEs and pressures on time and resources, the level of OHS awareness can be low and the economic advantages of good occupational health practice may not be realised. Ensuring safety costs money but being unsafe in the workplace is also costly; in the European Union in the year 2000, the direct cost of workplace accidents amounted to €55 billion, while an estimated 1,250 million working days are being lost each year due to work-related health problems. In Ireland the cost was estimated as 3.6 billion or approximately 2.5% of GNP (Gervais et al, 2009). Inadequate knowledge in SMEs concerning the link between good safety systems and related economic benefits (reductions in accident rates, sick days, etc.) is hindering OHS interventions.

There is a popular misconception that equates small enterprise size with low risk. Accident rates in small businesses can be higher than in larger operations: for instance, the
fatality rate in SME manufacturers in England was noted to be twice that of larger ones (Fairman & Yapp, 2005).

1 website accessed 16-8-2009
In a European study, incident rates for non-fatal accidents in the period 2000 to 2005 were highest in units with 50-249 employees (European Commission, 2008).

Regulation and Enforcement
The very characteristics that identify SMEs are themselves a challenge to regulation and OHS intervention. SMEs have a lack of specialist skills, low cash flow, limited workforces, are predominantly non-unionised and operate under continuous competitive marketplace pressures. This translates into a lack of funding for specialist skills, multitasking employees who don’t have the time to give to implementation of systems, and a lack of communication with regulatory authorities. A review conducted by one of the authors concluded that, in general, OHS in SMEs does not get the required attention. It is very well legislated for, but it was found that the legislation was not user friendly, enforcement of regulation was poor and directed more towards the larger enterprises, while channels for communication of legislation were found to be dysfunctional (Jordan, 2008).

Australia, New Zealand and the UK are seen to have more comprehensive systems of enforcement and communication, than apply in Ireland. Most of the Australian OHS inspectorates are unified, and there are large numbers of multi-skilled generalist OHS inspectors, with a small number of specialists in areas such as Construction and Dangerous Goods. The inspectorates have largely migrated from a central control model to a regionalised one with regional managers and inspectorates divided along industry-sector lines (http://ohs.anu.edu.au/2). Similarly, in the UK individual local authorities enforce OHS, while coming together under the aegis of the Local Authority Unit (LAU) and liaising with the Health Service Executive (HSE) through the HSE/Local Authority Enforcement Liaison Committee (HELA). By comparison, Ireland has one regulatory authority, the Health & Safety Authority (HSA). With respect to communication of the OHS message, the Australian & UK systems are again more advanced and more effective. In Australia, in addition to the regulatory authorities there are also national associations specific to the different industry types. For example, in the Meat sector alone there is the National Meat Association of
Australia, the Australian Meat Processor Corporation, Meat & Livestock Australia, etc. This is also true for the UK where numbers of associations deal with specific areas of industry, for example the British Meat Processors Association. These associations inform their member organisations of relevant Health & Safety matters via their websites and direct mailings; http://www.bmpa.uk.com\(^2\),
\(^2\) website accessed 17-08-2009
http://www.bmpa.uk.com\(^3\),
\(^3\) website accessed 21-08-2009
for instance. In Ireland, this does not appear to be the case. For instance, ISME (Irish Small and Medium Enterprises Association), while offering assistance to members on OHS matters, apparently does so on a ‘request’ rather than on a proactive basis. The Craft Butcher Association website does have a link to the Health & Safety Authority website. However, it’s listed under ‘links & downloads’ which only appears when the ‘employment law’ option is opened by the user. There isn’t any section of the home page dedicated to Health & Safety, never mind to considerations peculiar to association members.

**Approach and Methods**

The fieldwork set out to capture early data and evidence on the existence and efficacy of OHS initiatives in Meat plants in West of Ireland SMEs. While there is no clear definition of OHS performance, there are ‘indicators’. For example, the level of OHS documentation in existence can demonstrate whether or not there is an operational Health & Safety system in place, while statistics such as accident rates, absences, etc. can demonstrate if a system is relevant to the organisation and whether or not it is working.

Whereas this paper focuses on SMEs, the fieldwork also incorporated larger businesses. This allows for some commentary on the relative influence of size on OHS practice in the sector. Health & Safety was found to be a topic that meat plant directors were not very willing to talk about and it was definitely not an area of research that they encouraged. Consequently, a ‘convenience sampling\(^4\) approach was used, which was largely predicated on one author’s access to individuals in the selected companies. The authors have no reason to believe that these companies differed in any material way from their peers. Nevertheless, from a scientific viewpoint, the possible existence of a resultant bias is acknowledged. In total, 6 companies participated, of which there were two in each of the three
categories of Large, Medium and Small. Where relevant, these are referred to hereafter as Companies A, B, C, D, E and F, respectively.

The overall research project was ‘exploratory’ in nature - Patton (1987) defines work as being exploratory “if the program is at a pre-evaluation stage where goals and program content are still being developed”. As the goal was to maximise the breadth of the information captured, qualitative methods were employed for data collection (and analysis). Three methods were used to gather data: direct observation, open-ended interviews and Checklists.

Checklists were chosen rather than questionnaires in order to minimise the obtrusiveness of the data collection activity on subject’s time. The checklists included questions posed to the person responsible for the running of the Health & Safety office, questions posed to Management, areas observed during the floor inspection and questions posed to general operatives. Figure 1 below, provides an example of such a checklist, in this case to capture relevant data during walkthroughs of the companies. Checklists, and questions posed during interviews were developed by reference to the OHS management standards BS8800:2004, OHSAS18001:2007, OHSAS18002:Nov.2007 (draft) and the FAQ section of the HSA website (http://www.hsa.ie/eng/FAQs/).

<table>
<thead>
<tr>
<th>Company</th>
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<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPE – Is PPE provided, in use / used correctly and in good condition?</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Ergonomic best practice seen in offices/ VDU / Postures?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Visible location of First Aid boxes?</td>
<td></td>
<td></td>
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<tr>
<td>Is Chemical Storage separate and under lock and key?</td>
<td></td>
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<tr>
<td>Good workplace conditions – environment, canteen, locker rooms, and amenity areas?</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Are there controls for lone workers, confined spaces, flammables and explosives?</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>COMMENTS:</td>
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</tbody>
</table>

**FIGURE 1:** Sample Checklist - Shopfloor Inspection
Open ended interviews were conducted with members of staff and management as both were thought to be key informants. The interviews employed predetermined short sets of questions which were administered in an informal conversational manner. Again, a convenience sampling approach was employed – individuals encountered at random during shop floor observation of OHS practice in each of the meat plants were invited to participate.

The ‘direct observation’ element involved walkthroughs of the plants during which the workplace, workers and their activities were assessed from an OHS perspective, and pertinent records and documentation were sought out and examined. Relevant observations were recorded in real-time, in the form of field notes.

A process known as ‘triangulation’ (Patton, 1987) was used to strengthen the analysis. Triangulation involves using multiple methods to study a program. It means checking the consistency of what people say over time, comparing observational data with interview data, as well as validating information obtained through interviews by checking program documentation. In this study, the qualitative data sources were triangulated in order to validate the information gathered from the interviews by checking system documentation and observing work practices.

The use of observational fieldwork suggested the adoption of an inductive approach to analysis of the data collected, as the researcher had directly experienced the levels of OHS awareness, implementation and practice in the field. Inductive analysis is appropriate here, as:

(i) it allows findings to emerge from field data without the constraints imposed by more structured ‘deductive’ methods that have clear, pre-defined and measurable goals.

(ii) the inductive approach aids the researcher in condensing data, establishing links between research objectives and findings, and allows for the proposition of a theory.

As the data collected varied from one company to another – because their OHS systems/practice are essentially independent – the (qualitative) inductive approach adopted consisted of a Case Analysis (http://en.wikipedia.org/wiki/Case_analysis) of each plant’s data, followed by a Content Analysis (GAO, 1996) to integrate the findings by seeking themes and patterns in the data obtained from the case analyses, field notes and interviews.
Results
This section of the paper presents a selection of summarised results from the field study.

Field Notes
The following are extracts from field notes produced for two of the companies visited.

Company D – Medium Size Enterprise
5 website accessed 18-08-2009

- There was a manual handling instructor and the majority of staff had completed a manual handling course.
- All forklift drivers had completed a training course.
- There was very old health and safety system documentation, which was not in use.
- The OHS system had been developed for insurance purposes.
- There was one health and safety inspection on file. This inspection arose from a complaint made by the Department of Agriculture to the HSA. The complaint concerned a manual handling hazard for vets. The HSA visited the plant, concentrated their inspection to the kill line, left the responsibility for sorting the reported problem with the vets and departed. There has not been a follow up visit by the HSA and the rest of the meat plant was never inspected.

Company F – Small Enterprise

- Health and safety had never been mentioned at this plant prior to the authors visit.
- A food safety system was in place, but most of it had not been reviewed for two years.
- There were obvious accidents waiting to happen, as well as the normal hazards present in meat plants: frayed wiring near a wash area, blunt and old knives being used to bone out, large sides of beef being received through an entrance leading directly into the main boning hall.
- There was a climate of ‘why fix it when it’s not broken’.
- Senior management rarely visited the plant and did not have resources allocated for necessary structural improvements.

The food safety system was the responsibility an under-qualified non-National who admitted to being lost due to the language barrier and lack of knowledge.
Feedback from Health & Safety Coordinators

Questions posed to company Health & Safety coordinators were formulated in checklists; one for each of the elements that should be in place as part of an OHS Management system. The main elements are shown in Table 1, below:

<table>
<thead>
<tr>
<th>OHS Planning</th>
<th>Chemical Storage &amp; Control</th>
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<tbody>
<tr>
<td>Safety Statement</td>
<td>Control of Physical Hazards</td>
</tr>
<tr>
<td>Health &amp; Safety Policy</td>
<td>Training Programme</td>
</tr>
<tr>
<td>Document Control</td>
<td>Absenteeism Investigation</td>
</tr>
<tr>
<td>Emergency Procedures</td>
<td>Resources</td>
</tr>
<tr>
<td>Maintenance Programme</td>
<td>Equipment Design, Procurement</td>
</tr>
<tr>
<td>Management Reviews</td>
<td>Management Commitment</td>
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<tr>
<td>Continuous Monitoring</td>
<td>Calibration</td>
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<tr>
<td>Communication</td>
<td>Health Programmes</td>
</tr>
<tr>
<td>Contractors</td>
<td>Hazardous Substances</td>
</tr>
<tr>
<td>Documented Roles &amp; Responsibilities</td>
<td>PPE</td>
</tr>
<tr>
<td>Accident/Near Miss Reporting</td>
<td>Internal Audits</td>
</tr>
<tr>
<td>Accident/Near Miss Log Book</td>
<td>Corrective Action Protocols</td>
</tr>
</tbody>
</table>

**TABLE 1**: OHS Management System Elements

In each case, it was normal practice to ask follow-up questions and/or for clarification/comment to be provided by the interviewee. Figure 2 provides the reader with a sense of this process, by displaying the outcome with respect to the ‘Document Control’ element. ‘Yes’ (Y) boxes were ticked wherever the preponderance of the answer/evidence was in the affirmative

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<th>Company</th>
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<tbody>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Procedures for controlling documents?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Can documents be located?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Are they periodically reviewed and approved by authorised personnel?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Current versions of relevant documents available as/where required?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>No obsolete documents in circulation?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Archival documents retained and identified for legal purposes?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
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</table>

**FIGURE 2**: Populated Document Control Checklist
The following are indicative of additional notes/comments recorded in the course of completion of the open-ended interviews with the six OHS company coordinators:

- There are procedures documented but they are not always enforced.
- Health & Safety is next on the list, but we are just so busy.
- As long as the documentation is in place and up to date, everyone is happy.
- There aren’t even resources in place to change the broken light never mind to put towards Health & Safety systems.
- Senior management are only interested in the bottom line, how many animals were slaughtered, how many carcasses were deboned, etc.
- Health & Safety would only be considered if management thought they might be inspected by the HSA, even then it would be a system on paper and not in practice.
- The company only employ me as the Safety co-ordinator because it is a legal requirement to do so.
- I haven’t had Health & Safety training, never mind the operatives on the factory floor.

Feedback from Company Management and Operatives

Figure 3 summarises the Case Analysis outcomes from interviews with company management

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<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Were Management aware of their obligations with regard to workplace health &amp; safety?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Were Management aware of employee obligations regarding workplace health &amp; safety</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Were Management aware of the location of the First Aid boxes?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Were Management aware of location of first aiders?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Were Management aware of emergency procedures?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Were Management aware of the location of the assembly points?</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
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</table>

**FIGURE 3:** Management Interview Results
Similarly, the outcomes of open-ended interviews with general operatives are presented in Figure 4. Here again, the various boxes were ticked on the basis of the preponderance of responses from the operatives interviewed in the company concerned. The comments listed below Figure 4 are again typical of those recorded during the interviews. These comments, when considered with Figure 4, provide clear evidence of a poor Health & Safety culture, a lack of communication and lack of safety training in SMEs in the Meat Industry. They quantify the extent of the challenge to be faced by those charged with OHS regulation on the one hand, and those responsible for its promotion within smaller meat plants, on the other.

<table>
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<tr>
<th>Company</th>
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<tbody>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Were operatives aware of the Safety Statement?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Have operatives seen the Safety System?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of their legal obligations regarding workplace health &amp; safety?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of the employer obligations regarding workplace health &amp; safety?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives given job specific training and made aware of hazards in their work?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives trained in the correct use of PPE?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of the location of First Aid boxes?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of the location of the first aiders?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of the emergency procedures?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Were operatives aware of the location of the assembly points?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

**FIGURE 4:** Operative Interview Results
In the course of their interviews, individual operatives provided some telling answers and comments, of which the following is an indicative sample:

- Our Health & Safety is not high on the list of concerns around here.
- What does Health & Safety involve?
- How would Health & Safety benefit us anyway?
- We have Health & Safety; sure the vets are here all the time testing the meat!
- There will always be accidents, it's part and parcel of this job.
- We don’t have time for Health & Safety, the faster we work the more we get.
- Health & Safety was never mentioned around here.
- It would be like everything else, we’d sign up for it and never hear about it again.
- Health & Safety will never work in this industry.
‘Direct Observations’

The final set of aggregated results presented here relates to notes taken during the company walkthroughs - they are summarised in Figure 5, below.

<table>
<thead>
<tr>
<th>Company</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do Management lead by example?</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Is the Safety Policy displayed?</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Are there any hazards observed on the floor not risk assessed in Safety Statement?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Are there procedures/equipment not accounted for in the risk assessments?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Manual Handling – is the hazard controlled?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Repetitive Injury – is the hazard controlled?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Forklift – Is the hazard controlled?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Are there administrative controls?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Are Engineering Controls: machine guards, ventilation, equipment isolation in place?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PPE – Is PPE provided, in use/used correctly and in good condition?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Are ergonomic best practices observed in offices/ VDU / Postures?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Visible location of First Aid boxes?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Chemical Storage – Is storage separate and under lock and key?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Good workplace conditions – environment, canteen, locker rooms, and amenity areas?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Controls in place for lone workers, confined spaces, flammables, explosives?</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

COMMENTS:

- Incomplete walkthrough in Company A
- Operatives lifting, stretching and bending incorrectly.
- A forklift with a broken warning light.
- Operatives and a supervisor without a reflective jacket in the dispatch area
- A number of overalls were torn, with the pieces of material hanging off the sleeve and dragging off the floor.
- The canteen and amenities in the smaller companies were very cold and damp.
- A number of first aid boxes were damaged and dirty

**FIGURE 5**: Observations on Plant Walkthroughs
Discussion of Field Study Results

The tables in the results section above, although just a sample of the data gathered, show that Health & Safety in the SMEs companies (C, D, E & F) is not a priority and is sometimes disregarded altogether. Even the most basic requirement of having appropriately maintained and prominently displayed first aid boxes is unfulfilled.

The results of the study reveal a consistent difference between the larger enterprises and SMEs with respect to most quantifiable aspects of OHS systems. In general, there was also greater awareness of Health & Safety legislation in companies A and B than in the medium and small companies and they had made real progress towards OHS systems implementation. ‘Progress’ is the operative word here, because whereas the two larger companies had documented Health & Safety systems and it was claimed by management that these OHS systems were implemented, triangulation of the separate elements of the studies revealed a contradictory finding, as evidenced by operative responses and certain walkthrough observations (Company B).

The two medium sized companies had old and very basic Health & Safety systems that had been developed for insurance purposes. These systems were not being formally implemented, although many physical hazards were recognised and controlled. Management were aware of OHS requirements but OHS was not a priority for them. This was reflected in generally poor awareness and behaviour amongst operatives.

Finally, and shockingly, it was found that operatives in the two smallest plants had never heard mention of Health & Safety (within their companies), until the author’s visit. It was very obvious that there was a complete lack of awareness regarding OHS legislation and management systems. The managements were found to be just as ignorant on all matters pertaining to Health & Safety, as were the workforces. It was also found that senior and even middle management were unaware of the governing Food Safety legislation but were knowledgeable of requirements concerning the operation of the ‘business’. After comparing the comments made by operatives, the Health & Safety coordinators and the management at each meat plant and having observed methods of work and documentation, it was found that OHS is not just ignored, it is treated with scorn.

Final Observations and Recommendations

A limited workforce, the educational level of employees and their expectations, the need for multi-tasking and pressures to operate at full capacity, often leave both SME management and
employees ‘too busy’ to implement Health & Safety regulations. In the SMEs visited it was found that the management were a major obstacle to OHS regulation and intervention. In smaller enterprises, in particular, the proprietor is the person responsible for the implementation of systems, and is likely to have a cost focus. A British report on OHS in SMEs (Stephens et al, 2004) found that the management/proprietor is a key influence on the success of any intervention and further described the manager as “the gatekeeper to controlling change”, in this regard. The methodology employed in capturing and collating the field data exposed an air of disregard towards OHS and the Health & Safety of their employees by the majority of the managers and employers in the meat plants visited. Production and quality of product were the priority. Smaller meat plants typically have informal management systems with a lack of resources, awareness, communication and management commitment to Health & Safety. In this study, these companies had a lax attitude towards safety management and a most alarming culture of ‘if it’s safe enough, it’s good enough’.

In Ireland there has already been years of research on/in SMEs and such research is on-going. However this research concentrates mainly on the economic position of the SMEs. Wherever safety features, it tends to be Food Safety requirements in Food production. The recent introduction by Teagasc of a new support service for Small & Medium sized Food Enterprises (http://www.teagasc.ie/news/2009/200905-15.asp) that does not incorporate or even mention OHS is further proof of the divide that exists between the emphasis placed on Food Safety and on Occupational Health & Safety. Food safety, although of course extremely important in its own right is being prioritized over the safety and health of those employed in Irish SMEs in the Food sector. A food business cannot start processing until it has been registered with the Food Safety Authority, has implemented the basic Food Safety requirements and has been inspected and approved by the authority. Food Safety & Food Safety Legislation is taken much more seriously by both the authorities enforcing it and by the Food SMEs themselves.

The importance of OHS in smaller enterprises is, however, becoming more topical and is beginning to receive more attention internationally. For instance, in New Zealand the National Occupational Safety and Health Committee project ‘Occupational Health & Safety In Small & Medium Enterprises’ (http://www.nohsac.govt.nz/workpogrmeohsinsmes.shtml)
was due to be reported upon in June 2009. A stated project objective is to “clearly identify the strategic issues associated with efforts to improve occupational health and safety in SMEs”.

It is refreshing to see this type of research being carried out, but it also interesting to note that while a number of business sectors are identified for specific attention, including Agriculture, Horticulture and Fishing, the meat sector is not among them?

In 2007, the European Commission launched ‘Improving Quality and Productivity at Work: Community Strategy 2007-2012 on Health & Safety at Work’. This document, among other suggestions, encourages the establishment of national objectives and strategies: “The National strategies should therefore give priority to implementing a package of instruments which guarantee a high level of compliance with the legislation, in particular in SMEs and high-risk sectors.” It goes on to recommended some specific instruments, for example: “economic incentives …. for micro-enterprises and SMEs.” The EU strategy is featured on the Health & Safety Authority of Ireland (HSA) website (http://www.hsa.ie) and the site also states that “the distribution of simple, clear guidelines and economic incentives for micro-enterprises and SMEs will form a cornerstone of the HSA’s approaches”. However, it can be concluded from the research completed here that there haven’t been either guidelines or incentives offered to SMEs in the Meat Industry. Further, the website of ISME, which represents Irish SMEs, is also devoid of references to incentives on offer from the HSA or of any future plans to offer such incentives.

Management commitment and example lead the way in raising awareness of OHS, in the development and adoption of OHS systems, and in good Health & Safety behaviour. A recommendation for future OHS intervention and regulation in SMEs is to tackle the current deficits in awareness and practice, at senior management/director level. This should be done by highlighting the benefits achievable from the improved performance of operatives working in an organisation with a positive safety culture, while also emphasising duty-of-care and other ‘moral’ considerations. Health & Safety must be sold to senior management in order for it to be taken seriously by middle management and operatives.

The development of a safe system of work plan (SSWP) for the sector might also be considered. The SSWP is a simple description of a safe system of work for very hazardous activities which is included in the health and safety plan. It can be developed in written form
or in a series of pictograms depicting each task, the hazards associated with it and the controls that must be implemented, e.g. Personal Protective Equipment to be used. Pictograms are particularly appropriate here, because of the significant numbers of non-English speaking operatives employed in SMEs in the Irish Food sector.

In Ireland a Nationwide campaign needs to be put in place to increase people’s awareness of Health & Safety Legislation and OHS management systems. Such a campaign should develop and promote clearer channels of communication of OHS concerns and responsibilities to those of all educational and socio-economic levels. Such information will help transform the current OHS culture and climate of “its safe enough” and raise the expectations of individuals in the workplace with regard to Health & Safety. Raised expectations and increased awareness would mean that employers would have to take a proactive approach to OHS. Raised expectations may even have a positive effect on the culture and current behaviours witnessed in the SMEs in the Meat Industry in the West of Ireland? To witness an improvement in Health and Safety management in the SMEs, there is a need to have all of those involved in OHS working together, including the employers, employees, the meat associations, the regulatory authorities and the government.

Proportionate enforcement and communication is vital to the success of Health & Safety legislation (Jordan, 2008). The regulatory and enforcement agencies are faced with the same challenges as the SMEs themselves when it comes to intervention. Intervention costs money, takes time and consumes resources that are not available at the present time. SMEs will not inform themselves in OHS. SMEs have limited resources and will avoid where possible and for as long as possible any interventions that are going to interfere with production and/or cost money. A viable approach to reduce the current challenges both internally and externally is to give the SMEs a voice. The Minister for Labour Affairs appoints members of the board of the Health & Safety Authority - the board determines authority policy. Board members are nominated by organisations representing the social partners and other interests associated with occupational safety and health. A further recommendation for the future is that associations such as ISME be invited to nominate board members, thereby giving SMEs a vested interest in the development of policy, with the added bonus of developing clearer avenues of communication of Health & Safety issues and regulations. Giving the SMEs a voice would reduce both the internal and external challenges for OHS regulation and intervention. Garavan (2002) wrote that safety should be internally
and not externally driven. However, as he also noted: ‘Reality demands that attention must move more towards safety attitudes, climate and culture within and outside the organisation in attempting to solve the Health & Safety problems in the workplace’.

References
WS7b: 'SME management - the balance of formal and informal approaches'

Chairs:
Tina Kallehave, University of Copenhagen, Denmark
Joan Eakin, Dalla Lana School of Public Health, University of Toronto, Canada

The nature of SMEs - how they are organized and administered and the character of managerial and social relations within them – is distinctive, and needs to be understood to maximize business wellbeing and to address the relationship between the work environment and health.

This session is focused on issues of management in SMEs, and includes the following topics:

1) strategies for managing complexity
2) formal and informal approaches to conflict resolution
3) the development of effective work environments
4) labour relations in small enterprises
Presentations, session WS7b:
Chair: Tina Kallehave (with Joan Eakin)

Time: Friday 23 October, 11.15-12.45
Location: C-13
WS7b-1 Abstract:

‘How effective are HRM fits in small firms?’
by Hilbrand Knol, Lecturer/researcher, Saxion University of Applied Sciences, Deventer/Enschede, the Netherlands
Maarten van Riemsdijk, Assistant Professor, University of Twente, Enschede, the Netherlands

We investigate Human Resource Management (HRM) in small firms in the Netherlands. At contrast to common research we look for patterns in their HRM. We assume that, just like in large firms, HRM in small firms enhances employee performance under two conditions: 1. there must be a strong link between the overall vision of the organisation and its HR intentions (the vertical alignment); and 2. there should be a strong link between the HR intentions and the consistent and reinforcing messages to employees, as sent by way of the HR practices (the horizontal alignment).

Since in practice small firms’ organisation differs, we tailored our operationalisation to their specific situation. Using competing values, behavioural and contingency theory we have drawn an archetypical framework of four HRM configurations, combining owner/manager’s fundamental choices, HR intentions and HR practices.

In a first pilot study we analysed 20 small firms, and developed an instrument to determine the vertical and horizontal HR alignment. All firms could be placed distinctively by rating their degree of correspondence to the characteristics in the archetypical framework, and significant differences were shown between stronger and weaker alignments.

In this paper we present the results of a second study in 20 other small firms. We not only interviewed the owner/manager, but also asked a large amount of his employees to fill in a structured questionnaire. That enables us to link the degree of a small firm’s HR alignments to the degree of it’s HR effectiveness: to what extent are the owner/manager’s HR intentions realised as experienced by his employees (do they recognise them, do they feel supported and facilitated to do so, and do they want it)?

Hence, the central question is: How effective is vertical and/or horizontal HRM alignment in small firms?
Abstract
At contrast to common research we focus on patterns in small firms' Human Resource Management (HRM), using a configurations approach. From competing values and role behavioural theory we draw four archetypical configurations, combining owner-manager's fundamental choices, HR intentions and HR practices. In a pilot of 20 in-depth case studies we succeeded in using this framework to outline their vertical and horizontal HR alignment properly. A clear and distinct profile of each entrepreneur's HRM could be found, all emerging types are recognised and subscribed by the owner-managers. Significant differences are shown between stronger and weaker HRM consistency.
We also present 10 new case studies in which we not only interviewed owner-managers but asked a large amount of their employees to fill in a questionnaire as well, enabling us to link the degree of various HR alignments in small firms to the degree of their HRM effectiveness.
Key words
Human Resource Management, small firms, configurations approach, alignments, effectiveness

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E-mail contact adress: h.knol@saxion.nl
1. Introduction

During the last 25 years scholars are raising fundamental questions about whether, how and why Human Resource Management (HRM) could realise the claim that it creates 'competitive advantage through people'. Should all firms introduce the same 'best HR practices' or 'high performance work practices'? Does HRM only contribute to firm performance if its specific aims and practices are in line with the firm's strategy and goals? Or is it all about creating a coherent 'higher order HR system' (Becker & Gerhart, 1996)? Other issues in the ongoing debate concern the ways and channels by which HRM contributes to firm performance by means of employee outcomes (the 'black box' problem) and the theories to explain that (e.g. role behavioural, agency, transaction costs theory).

What is problematic here is that almost all of this theory and empirical research is related to the specific context of large firms. Just like elsewhere, Small and Medium-sized Enterprises (SMEs) in the Netherlands are the backbone of economic life and employment. Nonetheless studies about managing people in these firms ‘.... are rich in descriptions, but limited in sound descriptive data and sparse in analytical research' (Heneman et al., 2000, page 20). In their thorough review of studies about managing people in SMEs, Cardon & Stevens (2004) highlight that we still lack much of the theory and data necessary to understand how performance management, retention and ongoing employment issues as well as the integration and interaction of HR practices really work in SMEs from a synergetic and holistic point of view.

The objective of our study is to address this imbalance by examining the effectiveness of purposeful, coherent and consequently practised HRM in small firms, using a configurations approach. We argue that the HR mechanisms enhancing firm effectiveness don't fundamentally differ from those in large firms. But small firms are not a scaled-down version of large firms, they are distinctive and so is the way their (HR) management is practised. We will address this issue first, because we tailor our in-depth investigation to the specific HRM situation in small firms.
The HRM context in small firms

As Blau (1970) already concluded, size matters in organising and that influences the specific context of (HR) management strongly. That's why we limit ourselves to one size class, i.e. small firms (10-50 employees and \( \leq 10 \) million turnover, according to the classification of the European Union, (http://ec.europa.eu/enterprise/enterprise_policy/sme_definition). These firms already show patterns in their management and organisation, but the way in which they are organised and their HR is managed clearly differs from large firms. Large organisations are characterised by a strong horizontal and vertical differentiation, standardisation of work processes, planning, control and formalisation (Mintzberg, 1983). Small firms are more proximate to the environment, depending on fewer clients, making them more vulnerable and responsive to external changes. So organising has to be flexible, facilitated by internal communication that mostly can be face-to-face and rather informal. Increasing formalisation is a main characteristic of HRM in larger growing firms, because there is an increasing need for objectivity and justice (Kotey & Slade, 2005). Instead of the precisely defined tasks in larger firms, jobs in small firms are broadly matched with the experience, skills, knowledge and interests of employees, enabling the necessary flexibility (Carroll at al.;1999; Delmotte et al., 2002). In large firms HRM is a complicated game, with several hierarchic layers, HRM specialists and other parties involved, with formalised policies, systems and procedures. Small firms are clearly dominated by the idiosyncrasy of the owner-manager, HRM is largely done by himself and dominated by his personal values and intentions (Kotey & Meredith, 1997).

These owner-managers value the employment relationship crucial for running their company (Nadin & Cassel, 2007), and the right fit between employee and company is essential (Heneman & Berkeley,1999). In many HRM studies SME's owner-managers are asked to tick whether they use named practices which can be labelled as 'best practices' because presumably these (single or combined) practices enhance performance in large firms (e.g. Way, 2002, Sels et al., 2006). But a telephone inquiry revealed that only two of these seven normative practices really fit in the context of small firms (De Kok & Telussa, 2006). Asking owner-managers whether they use 'teamwork' creates confusion and irritation \(^1\) We say 'he' if we mean: he or she. ('we are a team, aren't we?'). Task rotation can't be found in three quarter of these firms, because it fits a complex organisation with firm prescribed standard tasks.

\(^{1}\) We say 'he' if we mean: he or she.
Storey & Westhead (1999) found that more formal training doesn't show a significant link with performance in these enterprises. Other research also suggests that in many small firms performance can be achieved with modest recruitment practices, training schemes or wage adjustments (Hendry et al., 1995; Carroll et al., 1999; Brand & Bax, 2002). Harney & Dundon (2006) conducted case studies to investigate how HRM in small enterprises really works from an open systems perspective, and found owner-managers who made use of there small firm's situation to practise HRM in a deliberately pragmatic way. We define HRM in about the same general way Beer et al. (1984) did, namely as: all management intentions, decisions and actions that affect the nature of the relationship between an organisation and its employees. The decisions and actions ('HR practices') regard: the employee flow (recruitment & selection, contracting, socialization, streaming out); the training and development of employees; the work organisation and systems (including employee discretion and influence); the criteria and ways of appraising and rewarding employees. Like Taylor (2005) we consider HRM as a snark, a mythical creature that transforms itself to actual circumstances. We argue that from a theoretical point of view HRM in small firms doesn't differ fundamentally from HRM in large firms, but is practiced differently according to their specific organisational context. That's why we undertake in-depth case studies, interviewing small firm's owner-managers in a semi structured way, recording the ways in which they actually practise their HRM. Instead of measuring formalised practices using a normative framework we look for the way their practices reflect their intentions regarding employee qualities, employee behaviour and employment relations. Various HR intentions and practices could be effective as long as they are in line with each other and in line with the fundamental values of the owner-manager about the success criteria and organisational character of his firm. Central question in our study is: How effective are HRM alignments in small firms?
2. Theory

*Three kinds of alignment*

In the 'best fit' approach different links or 'fits' are distinguished (Wood, 1999). We follow Gratton & Truss (2003) in their deliberate choice to refer to 'alignment' and not fit. The term alignment suggests a more fluid dynamic character, while fit implies a relationship between two discrete entities and a more mechanistic 'matching' exercise. In their ten years study of seven large UK organisations they argue the importance of three different alignments in realising effective HRM. First of all, the HR policies and practices that make up an organisations' people strategy should reflect, reinforce and support the organisation's business aims and objectives. A strong linkage is needed between the overall vision that is held in the minds of the senior executives and the aims, objectives and underlying philosophy of the organisation's approach to managing people. This link between people strategy and business strategy they term *vertical alignment*. The second dimension is *horizontal alignment*. They argue this is a distinct dimension operating at the level of HR policy, not at the practice level. A high degree of horizontal alignment means that an organisation is articulating a clear, coherent and consistent approach to managing people that permeates its entire HR activities. This way the firm is able to communicate consistent and mutual reinforcing messages to employees by way of the HR activities (Bowen & Ostroff, 2004, name that 'strong HRM'). The third dimension is *action or implementation alignment*, and concerns the experiences by employees of HR policies. The mere existence of HR policies and a people strategy in the eyes of (HR) management is not sufficient to conclude that their HRM is effective. Unfortunately this dimension has received scant attention in former studies. Yet, as their research clearly shows, it is fundamental that employees experience the HR policy as it is turned into action through the actual HR practices and management behaviour. We investigate the same three kinds of alignment. But the way we draw them up is tailored to the specific situation of small firms. Tuning the firm to the external environment ('strategy') is about fundamental choices the dominant coalition makes in what the company stands for or will be (Child, 1972). In small firms the owner-manager is the dominant coalition, and strategy is 'a pattern in a stream of decisions' (Mintzberg, 1995). The underlying choices that shape this pattern, as dominated by the idiosyncracy, personal values and perspectives of the owner-manager, we name his *fundamental choices*. We label his unwritten aims regarding employee behaviour
and employment relations as his HR intentions. To the extent that these intentions are more in line with his fundamental choices, we call his HRM more vertically aligned. The direction of his HR practices we derive from his decisions and actions in the four HR fields as mentioned earlier: the way he recruits and contracts employees and his salient selection criteria; training and employee development; the way he organises work and matches tasks and responsibilities with employees; the way in which he appraises and rewards employees and the salient criteria he has in mind doing so. His HRM can be horizontally aligned in two ways: the extent to which the overall direction of his HR practices is reflecting his intentions, and the amount of internal integration between the practices directions (how far do they point in the same direction, forming ‘bundles’, MacDuffie, 1995). Like Gratton & Truss, we investigate the implementation alignment by questioning employees: to what degree do they recognise and experience the HR practices are echoing the owner-managers’ intentions?

Theoretical model

Because we are looking for patterns of mutually related HR variables in a certain firm and argue that a coherent order in HRM is most effective, we stand for a configurational perspective. Configurational inquiry represents a holistic stance, an assertion that the parts of a social entity cannot be understood in isolation, because order emerges from the interaction of those parts of a whole. It is the patterning of organisational elements that creates synergy and causes effectiveness. Nonlinearity is acknowledged, variables found to be causally related in one configuration may be unrelated or even inversely related in another. That's why we can't measure in a linear way how e.g. organisational strategy is linked to the use of certain HR practices. Theory based on the ideal-type construct has to serve as an abstract model so that deviation from types can be noted and explained. In order to use this approach, we have to develop a theoretically driven classification system of various internally consistent archetypical HR configurations, accommodating the important concept of equifinality as well (Meyer et al., 1993; Delery & Doty, 1996). Using competing values, role behavioral and classical contingency theory we draw distinct ideal-typical configurations, aligning specific fundamental choices, HR intentions and HR practices directions. In figure 1 our theoretical model is shown.

Figure 1: see appendix
Theoretical model

Starting-point is competing values theory (Quinn & Rohrbaugh, 1983). Competing values are fundamental choices between opposite firm effectiveness criteria: what are the owner/manager’s values and aims regarding business, organisation and management? Does he want flexibility, room to manoeuvre and readiness, or stability and control? An internal focus and integration, or an external focus and differentiation? His choices on these two dimensions determine the character of his firm. In the spatial model of competing values these two dimensions are drawn as the two axes of a matrix, resulting in four quadrants. In each quadrant an ideal-typical organisation scores at the extremity of an axe. We label the four ideal-typical fundamental choices as: low cost efficiency, quality enhancement, market based and innovative. In linking the owner-manager’s fundamental choices to his HR intentions, we share the tradition of role behavioural theory. Schuler & Jackson (1987) argue and detail how HR practices should be linked to a certain competitive strategy (based on Porter’s classification), by means of needed employee role behaviours. They identify three different types of role behaviours along 12 dimensions they assume to be most instrumental in the implementation of the cost reduction strategy, the quality enhancement and the innovation strategy (ibid., page 209). We adopt their characterisation of these role behaviours. The role behaviours needed to realise the market based fundamental choice we formulated ourselves, using their dimensions. The relationship between employees and organisation is another keystone in small firm’s HRM (e.g. Wilkinson, 1999). Therefore we add the distinct aimed person-organisation (p-o) fit (Chatman,1989; Kristof, 1996) as next indicator of the HR intentions: why should someone choose this company to work for, why stay here or leave, what makes working here attractive? Together the critical needed role behaviours and intended p-o fit make up the HR intentions in our model.In the same way we draw the HR practices aligned to the ideal-typed fundamental choices and HR intentions. Characterising the work system we use classical contingency theory (Lorsch & Morse, 1974; Perrow, 1976). The particular direction of the other three practices is not only derived from Schuler & Jackson’s HR practice menus (ibid.), we also included relevant insights of other HRM scholars (esp. Schoemaker, 1998).

Combining the four ideal-typical fundamental choices with the corresponding HR intentions and HR practices results in a framework of four archetypes, representing a maximum vertical and horizontal alignment of HRM. Each archetype represents a distinct HRM configurational
mode in which the fundamental choices, the HR intentions and the HR practices are in exactly the same line; we name them the commitment, collaboration, market driven and compliance configuration.

**The four archetypical quadrants**

In figure 2 a summary is shown of the detailed ideal-typical quadrants framework that is central in our inferences about HR coherence. We will draw out each of the four quadrants and illustrate them with some examples.

**Quadrant 1: Commitment**

A quality enhancement choice means delivering quality by way of more flexible organising, developing and maintaining broad craftsmanship. An entrepreneur that has chosen e.g. to deliver broad quality software systems consultancy, has to keep knowledge and skills of his employees up-to-date. Because there is a variety in jobs to be done, requiring different skills, it is most profitable they are multi skilled. Although they are put to work individually, there are tasks demanding co-operation with colleagues. In their work they have to be accurate and cautious, focused on delivering quality for clients, coping with some discretion. The owner-manager has to select carefully and offer long term employment contracts because it takes a long time to work one's way in and deliberate investments in employee training and development are needed. Appraisal and rewards will be primarily focused on the quality delivered, on skills improvement and development. Immaterial rewards are in place, just as care for employees, the p-o fit is focused on a long term affective organisational relationship.

**Quadrant 2: Collaboration**

Innovative choices are focused on finding unique solutions for complex problems; to quote an ideal-typical owner-manager of a firm delivering state of the art IT system solutions for traffic problems: '.... I don't accept projects that have been done before because I don't like tricks, no matter how profitable they are'. Each project is a voyage of discovery, a knowledge intensive tailor-made solution has to be found by an ad hoc team of experts in various disciplines. There has to be a careful selection, not just on expert knowledge but on team play capacities as well. Non conformists are needed, thinking out of the box, willing to take risks and having a high tolerance of ambiguity and unpredictability. To be successful, the owner-manager must give them a lot of discretion. Deliberate long term focused investments are necessary, in preserving state of the art expertise and in knowledge management. Team successes are celebrated and rewarded. Most valuable are employees that can play various team roles,
including project leading if necessary, and employees attracting and requiring projects (next to the owner-manager) because of their well-known unique expertness. Ideal-typical HRM stimulates, facilitates and rewards these qualities in a proper way, included giving way to bootlegs, publications, study trips, presentations etc. The p-o fit is focused on in depth challenges and professional partnership.

Figure 2: see appendix

*Configurational framework of archetypical quadrants*

**Quadrant 3: Market driven**
Market-driven choices stand for realising profitable commercial transactions in the market. Here autonomous and competitive hands-on professionals are needed, with clear commercial qualities. E.g. in particular consultancy firms employees have to gain their own clients and reach commercial targets. They have to be able to deliver results quickly, investments in organisational commitment don't have priority. Training decisions in such an ideal-typical firm are ad hoc and minimal. Profitable working hours and short-term commercial results are stimulated and rewarded, lasting better results lead to a growth in basic salary. Material incentives are important and often status related (company cars etc.), the remuneration package is very competitive. The p-o fit is transactional and symbiotic.

**Quadrant 4: Compliance**
Successful realisation of a low cost fundamental choice requires an emphasis on internal efficiency and control. A tightly regulated work process should result in reliable and low cost products and services. This demands employees executing routine tasks, simply carrying out what has to be done efficiently. A good ideal-typical example is a firm producing electronic print plates: tasks are simple and small, robots giving light signal commands about which components from which box in which order have to be placed on the print plate. Recruitment is done by an employment agency, candidates only have to meet a few fixed job demands and employees are hired by a payroll construction. They are put to work quickly, job training is minimal and there are no further investments made in training or development. Results are strictly monitored. Rewards are material and competitive, with room for results based incentives. The p-o fit is transactional, commitment is instrumental (‘most people primarily work for the money here’).
**HRM effectiveness**

By referring the fundamental choices, HR intentions and HR practices as we find them in a certain firm to the detailed characteristics of the four ideal-types, we determine the degree of its vertical, horizontal and implementation alignment. Following Boxall & Purcell (2008) and in line with the role behavioural approach, we argue that HRM is more effective if employees recognize the most needed role behaviours and intended p-o fit, are motivated to really apply to them, and feel stimulated and supported in doing so.

3. The pilot study: research design, methods and main findings

*Research design and methods*

To find out whether our concepts and methods really make sense and how useful they are, we started a pilot study in 2007. We investigated 20 small firms, privately owned and independent (no franchising or settlement of a larger company) and at least five years old. They all had 15 to 55 employees, and were mostly situated in the east of the Netherlands. Two can be characterised as (mainly) manufacturing, 18 are delivering services. Only one enterprise had a professional HR officer employed. We choose a case-study design because more than just collecting data we wanted to get acquainted with the companies. A tight protocol was used in order to investigate every firm in the same way. In each company we interviewed the owner-manager (taking at least one hour) and one or two of his employees (about half an hour per interview). All interviews were conducted by two researchers, well informed about the information we were looking for. Each case study was structured as follows. First the owner/manager filled in the Organisational Culture Assessment Instrument (OCAI) questionnaire (Cameron & Quinn, 1999), based on the competing values of Quinn & Rohrbaugh (1983). This questionnaire forces to divide six times 100 points between four statements, each statement corresponding to characteristics of one of the four ideal-types. This results in a clear profile of his fundamental choices. By means of semi-structured questions we then asked for his HR intentions, the direction of his HR practices, the employee absence and labour turnover rate. All interviews were taped and literally transcribed. The degree of correspondence of an owner-manager’s fundamental choices to each of the four ideal-types was scored on a five points scale, from 1 point ((hardly) not corresponding a certain ideal-type) to 5 ((almost) completely corresponding). The ideal-typical framework enables us to compare the HR intentions and HR practices direction as displayed in a given interview with the detailed characteristics of each ideal-type. Two expert researchers (the first author was
always one of them) independently analysed and rated these variables, referring the outcomes of the interview to the characteristics described in the archetypical framework, also using the named five points scale. The differences between all of these scores then reveal the vertical and horizontal HRM alignment in a particular firm (the so-called ‘fit as hybrid’ method, Delery & Doty, ibid., pages 812, 813). The first column of the appendix shows the interview items we used to determine the HR intentions and HR practices direction of an owner-manager. The rating of his HR intentions was based on the two named most salient qualities needed in the firm (knowledge, skills, abilities), the outspoken most valuable role behaviour, the three most important role behaviours selected from a list of characteristic behaviours (e.g. 'comfortable with simple work', 'commercial and ambitious', 'broadly employable', 'solve complex problems'), the stated most attractive aspect of working here, the main reason for employees to leave this firm and to stay here (e.g. is it about money, in depth challenges, entrepreneurship, the pleasant working climate?). To determine the direction of the four HR practices we had to develop an instrument specifically in line with our approach. During the pilot study we further fine-tuned it, scrutinising all ratings, comparing them with each other in several rounds of cross-case analyses, making criteria more explicit and adjusting some scores, until every score was properly based. The employee flow direction was rated by looking at the recruitment channels an owner-manager used, his two most important selection criteria, the way he contracts new employees and let them work their way in. E.g. a simple and cheap recruitment process, selecting on no other criteria than willing to work efficiently and carry out what has to be done, quickly put to work and not primarily a long term contract, points in the ideal-typical compliance direction. To rate the direction of the work system in the primary process we examined four aspects. First are client contacts: e.g. do employees gain their own contracts and are they fully responsible for their own client contacts (market driven) or are client orders taken in and planned from a central point but do employees have direct client contacts with a certain degree of discretion (commitment)? Second are task characteristics; e.g. are the services standardised, the tasks routine, small and poor with minimal variation (compliance)? Third aspect is co-operation, fourth is co-ordination and control: are temporary project teams critical, is organising based on teambuilding, performance and output of teams (= collaboration), or are employees put to work individually while organising is based on their individual commercial performance and output (market driven)? To determine the training and employee development direction we
also used four indicators. First: how systematic and deliberate does the owner-manager deal with training and learning of his employees? Further: how much time and money does he invest in allowing all kinds of internal and external, formalised and informal employee learning activities? Next: what is the direction of these activities; are they e.g. focused on enhancing process quality or broadening employee skills (commitment), or focused on deepening employee expertise and sharing knowledge (collaboration)? Finally: what are the ways to grow further in one's work, are they ad hoc or structural, and what are they based upon? The appraisal direction we rated by examining its character and purpose, and scrutinising what is appraised, e.g. efficiency, effort, costs (compliance), quality, cooperation, skills (commitment), commercial results, reaching targets, margins (market driven) or expertise, problem solving quality, various team roles (collaboration)? The rating also depends upon the strength of the appraisal: how noticeable are the consequences for employees? The rewards direction we derive from the way in which employees are rewarded and the salient reward criteria: how does the salary system look like, is it a tight system with firmly classes and steps or how else, and what is rewarded to what extent: the job, experience, effort, knowledge, (multi) skills, results (individual, team, all)? What role do fringe benefits play? And are there other indirect ways of rewarding? The more the rewards direction is clear and consequent, the higher the scores on the quadrants are.

**Summary of the results**

We limit ourselves to a summary of the main findings as we described them earlier in more detail (see Knol & Van Riemsdijk, 2009). All firms could be placed distinctively by rating their degree of correspondence to the characteristics in the archetypical framework in terms of their vertical and horizontal alignment. All 20 entrepreneurs were obviously concerned in creating and maintaining a pleasant working climate and good employee relations, almost all fundamental choices and HR intentions reflecting the commitment archetype at least to some degree (two points), often more. But on top of that we found clearly different types, ranging from ideal-typical commitment oriented to mainly collaboration, market driven and compliance hybrids. The various owner-managers show a widely spread array of fundamental choices and HR intentions, but most of them clearly know what they want. Although they hardly use ‘high performance HR practices’ like psychological tests, assessment centres or extensive external formal training, many of them select their employees carefully and invest largely in employees learning, regarding their own small firm's context in practising HRM in
a deliberately pragmatic way. Nevertheless significant differences were shown between stronger and weaker vertical and horizontal alignments and HRM consistency. Our analyses resulted in individual HRM profiles that revealed their strong and weak aspects. We discussed the findings with all owner-managers and other firm related insiders; they clearly recognised them and found them relevant. Next to the owner-manager we interviewed two employees in every firm. Especially since these two often appeared to be the owner-managers’ two most preferred employees, this information was insufficient to draw decent conclusions. So we could not determine the implementation alignment nor the HRM effectiveness of these firms in a proper way.

4. The further study: research design, methods and preliminary results

Research design and methods
A year ago we started a further study, conducting case studies amongst 25 other small firms. This time we not only interviewed owner-managers in the same way about the same items as we did in the pilot, we also asked a large amount of their employees working in the primary process to fill in a structured questionnaire. In the second column of the appendix the items we raised in the employee questionnaire are listed. Employees are questioned about the same HR intentions items as the owner-manager, we also made some items firm specific by copying the statements made by the owner-manager, asking his employees how much they (dis-) agree, using a five points scale. The questionnaire contains the same HR practices direction items as in the interview, but stated in such a way that employees score on a five points scale according to their degree of (dis-) agreement or the perceived (ir-) relevance. We also asked employees whether they apply to the role behaviours they say to be most needed in their firm, and how supported and facilitated they feel in realising them. Finally we asked for their intention to leave and their organisational commitment. Again two independent researchers scored and scrutinised all ratings of the HR intentions and HR practices in the same way we mentioned above, this time not only rating the owner-managers’ HR direction but the direction as perceived by his employees as well. Now we are able to determine all three kinds of HR alignment in a certain firm and to link them to the degree of the firm's HR effectiveness. In figure 3 the research model of the further study is shown.

Figure 3: see appendix
Research model of the further study

We explained how we transferred the information as given in the owner-manager's interview and the employee questionnaires to the archetypical or hybrid configurations representing the owner-manager's fundamental choices, his HR intentions and HR practices, as well as the configurations representing the HR practices and HR intentions as perceived by his employees. We compare the similarities and differences between these configurations to determine the vertical, the horizontal and the implementation alignment. Because the configuration profiles we draw are the result of our processing of information from different sources and different perspectives, we use a rather rough classification to label the degree of alignment. If two configurations show about the same profile (e.g. two hybrids both mainly representing collaboration mixed with some commitment) we classify the alignment between them as sufficient. In case the two configurations are both containing the same archetypical characteristics but nevertheless show another hybrid profile (e.g. the other is mainly commitment mixed with some collaboration) we score the alignment as moderate. The alignment between two configurations showing clearly different profiles is rated as insufficiently. Our primary aim is to relate the three alignments in a certain firm to the effectiveness criteria we draw in the box at the right side of the research model. Secondary is the exploration of a possible relationship between the HRM effectiveness of an owner-manager on the one hand and HR outcomes like absence or employee outcomes like the intention to leave and organisational commitment on the other.

Preliminary results

Since it is rather time consuming to transfer the collected data to proper drawn alignments, by date we finished this process for only 10 of the 25 enterprises. In table 1 these firms and their main characteristics are shown. Just like in the pilot study, most of them are delivering services, one firm can be characterised as manufacturing, two are nurseries. They all are at least five years old, the number of employees varies from 21 to 55, only one hires a part-time professional HRM officer and three apply to a collective labour agreement. A significant amount of their employees filled in the questionnaire, a total of 170. Again we notify that the HR intentions of most owner-managers have a hybrid character but at the same time clearly vary, from mainly commitment to mainly collaborative or compliance oriented (mainly market driven HR intention configurations we didn't find so far in the further study).
Overview of the 10 independent small firms we analysed in the further study. We have to be cautious in interpreting the results of only these first ten cases. Nevertheless we found some striking preliminary results we want to share with you. The vertical alignments we found, vary along our insufficient, moderate and sufficient classification. All horizontal alignments are sufficient or at least moderate (mostly because the appraisal and rewards direction was not strongly reflecting the HR intentions), indicating that most owner-managers practise their HR intentions in a consistent way. But in only three enterprises the owner-manager's HR intentions are so well recognised by his employees that we label them as sufficient, in five firms this alignment is moderate and in two it is insufficient. In three firms HRM is really effective: in the software consultancy firm, the plumbing, gas and electric fitting firm and the supply and logistics management service firm the owner-manager's HR intentions are clearly recognised by his employees, a fast majority of them saying they really apply to the needed role behaviours, and feel supported and facilitated in applying them. In the first company the horizontal and the implementation alignment are moderate, in the other two firms both alignments are sufficient. In two firms HRM is ineffective. In the IC's reliability and quality control service firm the employees don't really recognise their owner-manager's HR intentions and about half of them doesn’t feel supported nor facilitated in applying the needed role behaviours. The employees of the convenience products engineering firm moderately recognise the HR intentions, but less than 50% feels supported or facilitated in realising them. In both companies the implementation alignment is insufficient, and it is interesting to notice that while both owner-manager's HR intentions are predominantly commitment or collaborative oriented, a vast majority of their employees agree with the statement that money is the most important way of rewarding in their company.
5. Conclusion

We are investigating patterns in small firms’ HRM, arguing that more coherence between an owner manager’s fundamental choices, HR intentions and HR practices, clearly recognized by his employees, will lead to more HR effectiveness. We showed how we used competing values and role behavioral theory to build up an archetypical framework of four ideal-typical configurations, and how we used that framework to study their HRM coherence in a genuine way. In a pilot of 20 in-depth case studies we examined how proper our approach and methods are and how useful they can be. We visited all companies, extensively interviewing owner-managers about their fundamental choices, HR intentions and HR practices direction. Since we tailored HR practices to the small firms context, we had to develop an own instrument to measure their ideal-typical direction. We succeeded in placing every firm distinctively in terms of its vertical and horizontal alignment by rating the degree of correspondence of the owner-manager’s fundamental choices, HR intentions and HR practices to the characteristics of each archetype. All entrepreneurs were obviously concerned in creating and maintaining good employee relations. But on top of that we found clearly different types, mostly hybrids as could be expected. Although hardly using ‘high performance HR practices’, the entrepreneurs try to practise HRM in a purposeful, deliberate and consequent way. Nevertheless significant differences were shown between stronger and weaker HRM consistency. We discussed the findings with all owner-managers, they recognised and subscribed them and found them relevant. As our analyses clearly revealed the strong and weak aspects of their HRM, we apparently are developing a strong instrument for well based HR advising.

In the further study we not only interview owner-managers in the same way about the same items as in the pilot, we also asked a large amount of their employees working in the primary process to fill in a structured questionnaire. This enables us to determine the implementation alignment of each firm next to the vertical and horizontal, and we can link these three alignments to the firm’s HR effectiveness. By date we finished this process for only 10 of the 25 enterprises, but some striking findings can be notified. The employee recognition of their owner-manager’s HR practices direction clearly varies between the different companies. We found three firms HRM in which HRM is really effective. In two enterprises employees don't really recognise their owner-manager's HR intentions and most of them don’t feel supported.
nor facilitated in applying the needed role behaviours. In both companies the implementation alignment is insufficient.

We have to be cautious in interpreting the preliminary results of the further study. We have to analyse much more firms to draw well based conclusions, and it will take much more research to generalise the findings of our study properly. We also have to continue the scrutiny of the instruments we developed. They were obviously suitable to determine the various alignments but that doesn’t imply they are reliable yet; we have to apply them at a larger scale and preferably to other kinds of small firms as well, maybe we have to fine-tune them further.

Another point of discussion is our sample. We found the firms by means of networking, in a snowball sampling way. Since it is costing owner-managers a few hours to join our investigation, allowing their employees to fill in the questionnaire, we might assume we have a rather selective (biased) sample, consisting of owner-managers having a certain care for their HRM. Nevertheless, if we ever could find characteristics of successful and effective HRM in privately owned small firms, it should be in our sample. So we did and we succeeded in measuring them.

HRM is far too complicated to be reduced to (high performance) practices. And small firms are far too important to put them off by surveys asking owner-managers to tick a prefab list of formal HR practices that fit a large firm context, or simply advise them to copy these practices. Harney and Dundon (2006, page 49) conclude that ‘…. HRM in small firms is neither beautiful nor bleak but rather is best understood as complex’. The way we study HRM in small companies proves to be proper and useful to unravel some of that complexity. Really understanding HRM in small enterprises is an ongoing journey of discovery along winding roads, but apparently we are moving in the right direction.
Literature references


### Appendix

**Overview of the items we raised to determine the HR intention direction, the HR practices direction and the employee outcomes.**

<table>
<thead>
<tr>
<th>Interview owner-manager (both studies)</th>
<th>Employees questionnaire (further study)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR intentions owner-manager:</strong></td>
<td><strong>HR intentions perceived by employees:</strong></td>
</tr>
<tr>
<td><em>Needed skills, knowledge, abilities and needed role behaviours:</em></td>
<td><em>Needed skills, knowledge, abilities and needed role behaviours:</em></td>
</tr>
<tr>
<td>- Most needed knowledge, skills, abilities? Most valued behaviour?</td>
<td>- Importance of knowledge, skills, abilities and behaviour as mentioned by owner-manager?</td>
</tr>
<tr>
<td>- The 3 most important role behaviours? (prefab list)</td>
<td>- The 3 most important role behaviours? (same prefab list)</td>
</tr>
<tr>
<td><strong>Fit employee-company:</strong></td>
<td><strong>Fit employee-company:</strong></td>
</tr>
<tr>
<td>- What makes it attractive to work here?</td>
<td>- What makes it attractive to work here?</td>
</tr>
<tr>
<td>- If employees leave, why?</td>
<td>- Is material rewarding the main reason to work here?</td>
</tr>
<tr>
<td>- Is material rewarding the main reason to work here? If not, then what is it?</td>
<td>- The main reason to stay here for me is (as mentioned by owner-manager)?</td>
</tr>
<tr>
<td><strong>HR practices direction owner-manager:</strong></td>
<td><strong>HR practices direction perceived by employees:</strong></td>
</tr>
<tr>
<td><strong>HR flow direction:</strong></td>
<td><strong>HR flow direction:</strong></td>
</tr>
<tr>
<td>- Most important selection criteria?</td>
<td>- Most important reasons to select you?</td>
</tr>
<tr>
<td>- How long to work one’s way in? Short term or long term contracts?</td>
<td>- How long to work your way in?</td>
</tr>
<tr>
<td><strong>Work systems characteristics:</strong></td>
<td><strong>Work systems characteristics:</strong></td>
</tr>
<tr>
<td>- How much discretion, room to manoeuvre do employees have in their work? And in client contacts? Degree of formalisation, regulation? Control, co-ordination?</td>
<td>- Amount of work discretion and autonomy on different aspects? How much formalisation, regulation, routine, variety, complexity? Direct control, results continuously measured, performance control?</td>
</tr>
<tr>
<td>- In how far do employees need each other in their work? Ad hoc project teams?</td>
<td>- How necessary is co-operation in your work? Necessity to work in ad hoc project teams?</td>
</tr>
<tr>
<td>- How fixed or variable are tasks/ jobs, how flexible are job arrangements?</td>
<td>- Client contacts? Discretion in solving client problems?</td>
</tr>
<tr>
<td>- How detailed are job descriptions?</td>
<td>- Gaining your own contracts?</td>
</tr>
<tr>
<td><strong>Training and development direction:</strong></td>
<td><strong>Training and development direction:</strong></td>
</tr>
<tr>
<td>- How much formal training, how much time and money spent? Selection criteria, policy, limitations? Possibilities and intensity (time spent) of learning on the job, knowledge management? Further employee development possibilities?</td>
<td>- Does this firm invest deliberately in training? How many days you had a training? Stimulated to learn other tasks? Regularly meetings with colleagues to learn from each other? Possibilities to develop further in your work?</td>
</tr>
<tr>
<td><strong>Appraisal and rewards direction:</strong></td>
<td><strong>Appraisal and rewards direction:</strong></td>
</tr>
<tr>
<td>- Most important appraisal criteria? Regularly appraisals? How, whatfor? Appraisals on other occasions? How? Are results stimulated and/ or measured, how? Appraisal consequences?</td>
<td>- How often are you appraised? How? How important are appraisal criteria work results, commercial results, way of working, team roles, skills? Appraisal consequences?</td>
</tr>
<tr>
<td>- Rewards according a collective labour agreement, or sector agreement? How does the salary system look like? What is rewarded to what extent: job, experience, effort, knowledge, (multi) skills, results (individual, team, all)? Fringe benefits to reward? Other ways to show one is valued?</td>
<td>- What is influencing your rewards to what extent: your job, experience, effort, own results, team results, knowledge, (multi) skills, results (individual, team, all)? Same fringe benefits as colleagues?</td>
</tr>
<tr>
<td><strong>HR outcomes:</strong></td>
<td><strong>Employee outcomes:</strong></td>
</tr>
<tr>
<td>- Turnover rate?</td>
<td><strong>Application of needed role behaviour:</strong></td>
</tr>
<tr>
<td>- Sickness leave?</td>
<td>- To what degree do you apply to the (selected) role behaviours needed here?</td>
</tr>
<tr>
<td><strong>Opportunity:</strong></td>
<td><strong>Opportunity:</strong></td>
</tr>
<tr>
<td>- Do you get enough room and support to meet the firms’ work demands?</td>
<td>- Are you facilitated to learn enough to keep up with your work demands?</td>
</tr>
<tr>
<td>- Are you facilitated to learn enough to keep up with your work demands?</td>
<td><strong>Motivation:</strong></td>
</tr>
<tr>
<td><strong>Motivation:</strong></td>
<td>- Organisational commitment: scale of 2 validated items (WEBB/ TNO, derived from De Gilder et al., 1997)</td>
</tr>
<tr>
<td>- Intention to leave?</td>
<td>- Intention to leave?</td>
</tr>
</tbody>
</table>
Figure 1. Theoretical model

Figure 2. Configurational framework of archetypical quadrants
Figure 3. Research model of the further study
<table>
<thead>
<tr>
<th>Nr.</th>
<th>HR intentions</th>
<th>Configuration</th>
<th>Firm age</th>
<th>Size (empl's)</th>
<th>N *)</th>
<th>HRMer?</th>
<th>Collective labour agreement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Software consultancy</td>
<td>Mainly commitment (4) Moderate collaboration (3) Some market based (2)</td>
<td>5 yrs</td>
<td>25</td>
<td>13</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>Plumbing, gas &amp; electric fitting services</td>
<td>Mainly commitment (4)</td>
<td>16 yrs</td>
<td>25</td>
<td>10</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>3</td>
<td>IC’s reliability &amp; quality control services</td>
<td>Mainly commitment (4) Some collaboration (2)</td>
<td>15 yrs</td>
<td>40</td>
<td>25</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>4</td>
<td>Supply &amp; logistics management services</td>
<td>Mainly commitment (4)</td>
<td>8 yrs</td>
<td>18</td>
<td>10</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>Welfare arrangements consultancy</td>
<td>Mainly collaboration (4) Moderate commitment (3) Some market based (2)</td>
<td>6 yrs</td>
<td>55</td>
<td>33</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>Convenience products engineering</td>
<td>Mainly collaboration (4) Some commitment (2)</td>
<td>20 yrs</td>
<td>35</td>
<td>12</td>
<td>Partly</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>Specialised ventilation systems manufacturing</td>
<td>Mainly commitment (4) Some collaboration (2)</td>
<td>22 yrs</td>
<td>46</td>
<td>28</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>Perennial plants &amp; trees nursery</td>
<td>Moderate compliance (3) Moderate commitment (3)</td>
<td>37 yrs</td>
<td>30</td>
<td>8</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>9</td>
<td>Inbound call centre</td>
<td>Mainly compliance (4) Some commitment (2)</td>
<td>13 yrs</td>
<td>40</td>
<td>15</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>10</td>
<td>Season plants nursery</td>
<td>Mainly compliance (4) Moderate commitment (3)</td>
<td>33 yrs</td>
<td>21</td>
<td>16</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*) N = number of employees that filled in the questionnaire, in total: 170

Table 1. Overview of the 10 independent small firms we analysed in the further study
WS7b-2 Abstract:

‘Goal attainers and doers - Profitable businesses with good working environment in Sweden’
by Dr Per-Arne Wikström, E-inst Högskolan i Gävle, Sweden; Dr Katarina Wijk

Companies of today face several challenges. What characterizes organizations with good work environments? How are they managed?

This paper is based on a study carried out in late 2008 and early 2009 in eleven SMEs in Sweden. The organizations were chosen from a Delphi study where ten persons with a large number of contacts with companies and organizations where asked to name companies or organizations they considered to be successful in terms of having a good work environment (in a technical, psychological, social or organisational way).

We conducted semi structured interviews with managing directors and safety officers at the companies. At each interview we introduced the project and then informed the respondents that their company had been recommended to study by experts if one wanted to learn more about companies with good work environments. We asked the respondents why they believed their company had been suggested. The answers triggered further questions regarding their work environments. The continuing questions were based on their responses allowing for evolving themes and questions to guide the interviews. The chosen methodology has similarities with “Grounded theory” (Glaser 1992, Strauss & Corbin 1990).

For this presentation we have chosen to point and focus on one pattern from the material. This pattern has to do with two different approaches that management seemed to take in its ambitions to establish good work environments in our sample of companies. The first approach is based on a deliberately chosen philosophy and focuses on goal accomplishment. The other approach is based on doing and focuses on instinct, or “gut feeling”.

The study sheds light on two categories of companies that are profitable and also considered to have extraordinary good work environments. One category of these companies seems to accomplish good work environments without considering regulations or following standards. Therefore these companies are interesting to learn more about. The action driven companies, the doers, seem to rely heavily on a committed management. How do the action driven companies deal with succession questions and the translation of tacit knowledge? How do they manage to maintain a good social work environment and profitability and yet leave some general basic physical work environment issues out? How do these companies deal with regulations?
Abstract:

‘Strategies for managing complexity in and around small firms: strategizing in small firms’
by J. G. Rasmussen, Ph.D., Professor, Department of Business Studies, Aalborg University, Denmark

Small firms are increasingly situated in complex and changing dynamics, and are meeting a number of strategic challenges. The theme of this paper is how the management of such firms are responding to challenges to secure the firm and maintain interesting and satisfying jobs for its staff. The empirical inspiration for discussing strategizing are cases from a research project 2005 – 2008 studying strategic management in number of Danish, small and medium sized firms: The StraCon-project. This study was conducted by researching the individual firm and its management in three quarter of a year through several visits and a number of discussions on the strategic themes with managers across the population of firms. The firms with less than twenty employees form the analytic background for the discussion of complexity, small firms and strategy. The research questions dealt with in this paper are:

1. What is complexity for small firms in changing environments?
2. In what ways do small firms try to handle this complexity?
3. How can strategizing in a practice perspective be used to interpret such actions?
4. Are there healthy and efficient ways to deal with complex strategy in small firms?

This discussion leads to building a framework for a study of small firms in a period of financial, economic and market crisis which is planned to start in the fall of 2009. The ontological perspective used is interpretive and focus on change in markets, organising, working relations, sense making, and common sense. The theoretical framework is based on researchers such as: Ingeman Arbnor, Peter L. Berger & Thomas Luckmann, Robert Chia, Kenneth J. Gergen, Gerry Johnson, Henry Mintzberg, Alfred Schutz, Richard D. Stacey and Karl E. Weick.
Paper

Strategies for managing complexity in and around small firms: Understanding strategizing in small firms

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Abstract
Small firms are increasingly situated in complex and changing dynamics, and are meeting a number of strategic challenges. The theme of this paper is how the management of such firms are responding to challenges to secure the firm and maintain interesting and satisfying jobs for its staff. The empirical inspiration for discussing strategizing are cases from a research project 2005 – 2008 studying strategic management in number of Danish, small and medium sized firms: The StraCon-project. This study was conducted by researching the individual firm and its management in three quarter of a year through several visits and a number of discussions on the strategic themes with managers across the population of firms. The firms with less than twenty employees form the analytic background for the discussion of complexity, small firms and strategy. The research questions dealt with in this paper are:

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Key words
Complexity, small firms, strategy, interpretation, wayfinding

Introduction
In these years an increasing share of small firms get integrated directly in the global market development and competition, which for many means that they are stretching their organisational and managerial competences dramatically, often beyond their limits concerning how to meet complexity strategically. The kinds of firms especially involved in these conditions are those that operate within markets, technologies, and knowledge that are fast developing and demand advanced knowledge and dynamic knowledge development including employees as well as managers. These characteristics concern an increasing number of industries, including more traditional industries that are in an environment of dynamic transformation. Focus in this paper is small firms within different Danish branches. Firms involved in transformations often with considerable success during the last ten year, but in the last year faced with increasing problems. The paper has two main objectives. One is to present situations and processes in three specific small firms in relation to complexity and perspectives on markets and competition. The other is on this background to discuss the specific challenges which small firms encounter, their strategic reactions and especially how complexity in turbulent and unpredictable environments is managed.

The paper starts with a presentation of what specifically defines the terms ‘small firm’ and ‘complexity’ and the methodological framework within which the empirical cases are discussed. Complexity is highlighted in relation to a number of empirical illustrations. This discussion is followed up by complexity seen in relation to strategic issues actualized by strong economic pressures and exemplified by further empirical illustrations.

'Small firm’ uses as definition often rather quantitative characteristic measured in the actual number of employees and the relative financial turnover compared to other firms. Here the definition will be enlarged into a more qualitative definition because it is not the actual size of small firms that defines strength and weakness, but instead a number of cultural and identity factors that have developed from its small size. Some of the important factors mean

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1 The three small firms were studied by visits to the firms, analyses of documents, interviews with management and through a number of seminars where managers from the participating firms and researchers discussed specific strategic processes within these firms. In total fifteen firms participated in that study – called the StraCon-project - conducted by the FIRM-research group, but all information and illustrations used in this paper come from those firms with less than twenty employees.
for employees and the individual manager to take responsibility for a number of activities that in larger firms would be delegated to separate specialised functions, the ability to live and work in an organisation where a large part of rules and values are informally defined, and a daily life where competence development often has to be initiated by the employees themselves and carried through in rather unstructured processes.

Management is in focus in this paper because if some factors of a managerial nature in periods of general economic growth create minor problems for the firm, in times of economic troubles such lacks in management capacity might create severe problems. At the same time it is important to realise from the start that the cure against this is not to find new and better managers, because they would probably run into the same kind of problems. Instead it is important to see how small firms and their management cope, in a more or less efficient way, with what in this paper is called complexity. Complexity is something experienced in all management and is connected to the interaction between the environment, the resources, and the goals of the small firm, and is in this way a strategic issue.

Concepts and theoretical framework
In this paper, defining complexity as a strategic issue is connected to firms, their employees and their management especially working under conditions where many factors are very unclear, uncertain and complex, and where the speed of change is experienced as accelerating. Such change can be seen in different areas and with different change mechanisms in business. One area is the reaction of customers on a deliverance from a firm. The second area is the reaction of competitors on changes from the firm, from customers, and from other firms. The third area is the reaction from other stakeholders within the environment: Government, consumer organisations, other industries, etc. The fourth area is the interpretation of change within the market and in society made by individual employees and the staff of the firm as a collective. And the final area concerns the interpretations and further actions realised by management.

These complicated sets of mutual actions of interpretations can be defined as complex because they are certainly not part of linear development and do even not seem to be part of one and the same meaning bearing context. The different small firms, and the different actors, experience, and are participating in a large number of different interpretation processes that is not steered by one and the same logic. These different interpretation processes at the same time shape different sets of sense making that each creates different sets of common sense for
different groups of people participating in these processes. In some cases common sense is shared by a few persons, in some cases by the entire staff of a small firm, and in some cases common sense is shared by a firm and its main stakeholders. But it is important to recognise that common sense is always influenced by different ongoing sense making processes through communication.

The specified research questions presented and discussed in this paper are:
- What is complexity for firms in changing environments?
- In what ways do small firms try to handle complexity?
- How can the interaction between small firms and their environment be understood strategically?
- Are there healthy and efficient ways to deal with complex strategy in small firms?

To discuss these questions, the methodological framework introduced above and used in this paper is based on a paradigm that is inspired from Verstehen and Life-world traditions. This inspiration is specifically found in a combination of concepts from Peter Berger & Thomas Luckmann (Berger & Luckmann 1967), Alfred Schutz (Schutz 1970), Jerome Bruner (Bruner 1990) and Karl E. Weick (Weick et al. 2005), and to me originally started through discussions I had with the Swedish researcher and colleague Ingeman Arbnor (Arbnor & Bjerke 1977 and 2009) thirty years ago.

The theoretical foundation of this paper also includes strategizing and organising, and concepts and theories that are developed from researchers in different ways inspired by the above mentioned philosophical concepts: Kenneth Gergen, (Gergen & Trachenkerry 2004) Mats Alveson (Alvesson & Kärreman 2004), Gerry Johnson (Johnson, Scholes & Whittington 2008), Robert Chia (Chia & Holt 2008), Steward Clegg, (Clegg, Kornberger & Pitsis 2008) Paula Jarzabkowski, Julia Balogun (Balogun & Jarzabkowski 2004), Henry Mintzberg (Mintzberg et al. 1998), and Ralph Stacey (Stacey 2000). They all try, in different ways, to pour new life into theories on organisation and strategy from a practice, phenomenological, chaos or social constructivist perspective. What the paper tries is on this basis to discuss how such themes can be detected empirically in three specific firms.
EMPIRICAL ILLUSTRATION (EI) 1: THE THREE SMALL FIRMS

The small firms used in this paper are three companies in very different industries: A food-producing firm with a very innovative product and a staff of five persons, a consultancy firm within the IT sector with a staff of four, and print producing firm within the electronic industry with a staff of twenty. All three firms are managed by their owner or co-owners, in the food producing firm by one owner, in the consultancy all the staff members are also co-owners, and the print factory are co-owned by the two managers. The three firms each seems to have one manager as the most important. All are situated in Denmark, but are directly and indirectly influenced by competition and complexity world-wide. The firms were studied in the period from 2005 – 2007.

Complexity and contexts

Complexity is part of how we see and interpret things and act upon what we see. It is a social issue because it appears from the ways we interact with other people in interpretation processes. The World as a natural science object might be seen as complex, but this is not how it is used in this paper. Complexity comes from the ways we participate in and experience action and processes between human beings, when we use our ability to comprehend phenomena of which we only have partial information. We construct understandings, and we try to pass such understandings to other individuals at the same time as we changes our own understandings through such mutual processes.

EI 2: THE CONFUSING COMPLEXITY

The manager of the food-producing firm had developed an exceptional new product able to compete with more expensive luxury products world-wide, but he had for several years no idea of how the market looked, and he was mostly interested in development and production. Therefore he tried to reduce the complexity of this market by first hiring another food company to sell his product and after that, two sales managers, one after the other, but it all stayed unsuccessful.

Complexity phenomena cannot be seen as placed externally, outside a manager as a human being, they include the phenomena of communication and interpretation we as persons are directly engaged in. In this way complexity can be defined into several layers: The first
level is the understanding of a specific phenomenon itself; how we individually and at the same time collectively define a process or an act. The second level is how we interpret the context used to understand this phenomenon. The third level is how we build a paradigm of how to deal with contexts. In theory the number of levels might be enlarged, but in practice it might be enough to work with a parallel to Argyris and Schön (Argyris & Schön 1978) division into single, double and deutoro-level learning.

**EI 3: UNDERSTANDING COMPLEXITY THROUGH DEFINING A CONTEXT**

The two managers in the print firm could not see how they should be able to understand the entire complexity within their industry. Instead they focussed how the market influenced their one main customer and how that might influence this customer’s demand. The demand from their smaller customers was also not predictable to them and they could not systemize it into a market model. Instead the management had structured the firm in a way so it quickly could meet many kinds of specialised small order print demands through tailor-made solutions. Complexity was met through the context: if the firm should be able to respond to customers quickly it would succeed – a way to reduce experienced complexity by indirectly constructing a paradigm behind the firm.

The way to detect phenomena from complexity is different between individuals or between groups because we are brought up with, and experience, different contexts and paradigms. Context is in everyday life rolled out as informal common sense, and not seen as well-defined contexts setting frameworks for interpretation. Contexts are created through a combination of what we are told and what we have experienced. These two activities are at the same time coupled to the language we have learnt and still continuously are learning within our different areas of meaning. In this way we use interpretations of our own, but developed socially and our set of interpretations are close to those colleagues we are directly related to. This means that interpretations of phenomena, more or less, will be shared within a group and within a firm.

Meaning creating processes to tackle complexity are not formed through one-way interpretations of given phenomena. Phenomena are understood through our interpretations, they are not facts from somewhere out there. A phenomenon is shaped by our previous experiences and those negotiation processes we engage into as part of our interaction with
others. Such relationships are the backbone for the creation of phenomena and are in the longer run the basis for creating and recreating concepts. Some of these contexts we share within a small group, some are shared within an entire organisation, especially within a small firm, some within a broader culture in society, and some seem even nearly universal. Contexts are ways to cope with complexity through reduction. But again both the interpretation of phenomena and contexts are constantly in a process of complex reformulation. Managing small firms in complexity this can be seen as a constant process of ‘wayfinding’.

Complexity is a characteristic also in individual interpretation because in all phenomena different, often contradictory, possibilities for interpretation are stored. In many phenomena that are experienced as an everyday activity, common sense interpretations have the function to reduce the complexity and oppress contradicting views. Inside a group and in a small organisation a number of such common sense processes are constantly operating and create the conditions for becoming and being an integrated group and a tight organisation. The informal participation in such processes can be seen as an important part of managerial work in small firms.

Such processes are often formally handled within what in theory are described as the goals and structures of the organisation, but in this paper on small business it seems more accurate to describe them as processes of interpretations strongly influenced by the leading member(s) of a small organisation. This keeps the group or organisation together, and makes the members feel secure within the experienced complexity. But even within this contextual framework a number of different interpretations might exist, and they work to force the organisation out of that non-permanent equilibrium the context and the common sense try to keep.

Different interpretations are actually made out of the experienced complexity and are the main fuel for the development of groups, organisations and society, and at the same time for creating new complexity. These interpretations are often not compatible, which might create problems for the management in small firms. The lack of compatibility might be caused by different intentions shared by different stakeholders, but can also be caused by differently constructed contexts that each work as frame-setting for these interpretations. There seem to be no final answers by which the complexity question can be solved.
EI 4: CHANGING MARKETS OR INTERPRETATIONS

In the small consultancy all five co-owners wanted to serve the market with tailor-made consultancy on how technically complex IT-solutions were used efficiently in organisations, but the firm mainly earned its money through teaching more standard type IT courses. The co-owners wanted to change that, but could not figure out the market complexity in a way so they could influence the market in that direction. They could not construct a new and efficient context so they accepted to live within a context they saw as necessary even if it was not the one they desired.

Contexts are only indirectly approachable and are difficult to change, especially if they have functioned through a period of time as common sense in a group or inside an organisation, and so a firm, as the consultancy did, can be stuck in the dichotomy between need and desire. But what is even more difficult is to change the paradigm that governs a majority of contexts behind a person’s, a group’s, or a small firm’s interpretations. A paradigm emerges from the entire upbringing, and socialisation within the entire history of the firm. This is how a person or an entire firm sees the World, and how it is situated within that World. In the consultancy they had a common paradigm of who they were, and who they wanted to become, but their environment apparently had another picture of them. In the print company the paradigm of tailor made deliverances on short notice seemed more in accordance with the present customers. A paradigm might change over time, but in ways that seem almost impossible to plan for small firm. A strong idea behind cooperation in the development of a firm creates a rather strong paradigm and a homogeneous set of contexts, and makes changes in interpretation difficult.

EI 5: HANDLING COMPLEXITY

The management in all three firms was not through any traditional market economy conception or model able to see through the complexity in competition, customer reactions etc. Instead they managed their firms within concepts based on personal experience and intuition building on actual and previous customer- relations. Two of them - print and consultancy - were active toward their markets, not through models and theories but through their personal interpretations, the third tried partly to avoid market complexity. These are important observations not at least because two of the three managers had academic degrees (food and consultancy) and the third had earlier been a high ranking officer in the army
(print), and still they felt that formal theory was not the mean to understand and handle complexity.

Small firms dealing with complexity
One important characteristic linked to small firms is the group-like patterns of action they function through. Members of a small firm know each other and have specific and concrete relations, and the number of formalised rules for cooperation and work operations is few and rather insignificant. At the same time a small firm often has a distinct and rather visible, but often non-formalised, centre that plays a leading role in the construction of concepts within the organisation. Such a centre can contain one person, a small group of persons, or in fact the entire crew of the firm. The specific form of such a centre depends on the members of the organisation, its activities, its intentions and its environment. Traditionally small firms have often been portrayed as steered by one person who had started the firm and has a large degree of informal control over tasks, relations and the other members. These kinds of small firms exist, but the more recently started small firms within areas of fast changing markets, products and technologies often seem to become a type of organisation where a group of people is in the centre of goal-setting, decision-making and communication. The three case-firms were divided into a one-person, a two-person and an entire crew leader- and ownership, but still in each it seemed as one person had a fundamental role in preserving the existing common sense and the main concepts.

Externally a small firm is normally not dominating a market, often a number of small and medium sized firms compete on the same market. At the same time many small firms try hard to move into a niche position where they at least can be a dominating part. To do this they often try to specialise products, marketing, and distribution. This is done to slice out a part of the market that seems lucrative and where its competitors have disadvantages.

EI 6: CREATING A NICHE
In the food-producing firm the niche to be created was directly coupled to the unique product the manager had built the firm upon. The product was cheaper, more durable and had the same appearance than the luxury product, it could replace mainly for use in restaurants. The niche for the printing firm was the rather informal and close relationship to the one large customer and the ability on short notice to deliver tailor-made solutions to smaller customers.
The niche for the consultancy was divided between teaching standard IT-courses which it needed to earn money and IT consultancy which it wanted to do. All three firms tried to create a niche through a special product, a special service or a special way to deliver. This seemed to be known to all members of these firms and created the concepts they in common handled the complexity through.

Niche creation is traditionally defined as monopolistic competition where each supplier tries to conquer a promising niche of the market by the use of unique marketing methods, unique features within its products, or unique methods in distribution, logistics, ways of payment etc. Seen in another perhaps more internal perspective creating a niche is creating a context. A niche is not a phenomenon of a concrete nature it is a view on part of the environment shared within the firm and hopefully among some of the stakeholders. In a holistic perspective a niche creating policy is not directed solely toward marketing, product or distribution, it is for the firm over time creating a paradigm. From this prioritized niche, the entire interaction between the different organisational functions can be interpreted as common sense on how to serve the market, produce, develop etc. This means that sense making is not only external, and directed toward customers, it is also a sense making process that functions strongly within a small firm and toward the individual member of the organisation.

Small business internal sense making influences the entire crew and creates a culture that produces links between the product or service and all kinds of internal and external activities conducted by the members of the organisation. The relatively high degree of informality means that this sense making process is tied directly to work operations, collaboration and relations between employees and a very visible and active management. Small firms ‘are’, in this sense making perspective, their product, their marketing, and their specific ways to involve customers. It defines a number of contexts and becomes their paradigm. When it works it makes small firms strong in keeping a steady and clear direction, but often somewhat unwilling or unable to change course, also when that seems urgently needed. Small firms do not, as part of the organisation, include a function that makes it possible for it to create a second opinion concerning its course.

At the same time it is not the only problem for small firms that they get tied to their course through their norms and routines, as for the consultancy that kept delivering standard IT-courses, the print firm, where the management complained that tailor-made product delivered on short notice nearly was more than they could handle, or the manager in the food
A company who wanted to concentrate on development and production. Small firms also have limited analytical and managerial capacity to search for alternative areas of the market. They are busy in the niche they have chosen. Small firms are putting all their eggs in one basket, because that is the only one they have access to. It makes no sense in the daily collaboration in the firm to move into new areas, the present market and products are prioritized and the internal interrelatedness make strong sense of the course chosen. Every step out of that course seems to all participants to become a step in a wrong direction – out of context.

EI 7: CHANGING COURSE?
As mentioned the manager of the food producing company felt that he was unable to handle the problem on selling his product World-wide through hiring a sales manager. He had to sell the product globally to use the potential of the firm and to earn money. By coincidence specific customers in Japan and other countries outside and inside Europe had found the product and the firm and liked the product, but these sales were unstructured. The manager was as mentioned highly interested in the technical development of the product, but during the period the firm was studied he gradually came to the conclusion that this interest might not be enough to run a company successfully.

A day-to-day well functioning organisation of a small firm has in this way a trajectory that informally binds its different activities together, and reduces other. This trajectory is part of the dominant sense making that creates the firm, and to its present external stakeholders makes the firm trustworthy. This trust, often personified in one individual, makes stakeholders relying on the firm as long as it produces acceptable results.

Small firm strategy
Strategy and small firms may sound as an oxymoron. But that might be a result of the way strategy often traditionally is interpreted. The small firms described in this paper are, interpreted differently, regularly working on strategic problems, are dealing with strategic issues, have strategic challenges, and are active within strategic processes. The precondition for understanding this and for small firms to act strategically is a simple, realistic and practical understanding of strategy as a concept. Such a definition includes that strategy deals
with the interaction between the environment, the goals and the resources of an organisation. Strategy concerns in this way change in context and even in paradigms.

Defined so small firms in rapidly changing environments are faced with strategic questions regularly, questions they are not able to handle through moves steered by the existing common sense, traditions, and routines alone. Strategic questions involve reflections on how to understand a changing environment and how to act in a way such that the resources of the firm are used efficiently in the situation to reach the intentions of the firm. Interpreting strategy in this way is far away from seeing it as a top-down management planning exercise.

In small firms strategic activities instead take place through a number of rather unstructured, context driven and sometime context questioning, communication processes between crew members within the firm, important external stakeholders, and, certainly in the main role, the management of the firm. This does not function in practice as a kind of formal decision-oriented planning process. It is much more an everyday process where situations, possibilities and problems emerge from the operative activities and gradually are interpreted as becoming important for the development and existence of the firm. Operative tasks are handled through the daily routines, but some of them represent an interpretation of phenomena that are contextual unusual and at the same time seen as important. Such phenomena are the stuff which strategy is made of.

Strategic issues are of a type, so that the actual common sense within the firm does not seem to offer a proper solution to them. This does not mean that strategy is a discipline where new knowledge and new conceptualisations take over completely. It is a process where new ideas and well-know routines interact. In small firms this interaction involves both managers and operative employees. A trend in the development of small firms (as example the consultancy) shows that an increasing share of the crew participate in such activities not only to make it easier for management to solve its tasks and to increase a broad participation of the common employee, but also because the way important knowledge is distributed in small firms increasingly involves several employees and activate them in solving strategic tasks.

**EI 8: “STRATEGY” IN THE THREE FIRMS**

The consultancy had supported by a strategy-consultant written down a strategic plan, but the firm appeared to have forgotten this completely until we visited the firm and one of the co-owners started to search for it in his files. When the members of the firm confronted
themselves with this they realised that strategic discussions happened between all of them, but quite informally. The manager of the food-producing company who earlier had been the laboratory chief in a large firm, and had an academic degree including Ph.D., mostly saw strategy as some strange, traditional, business-like activity which he tried to avoid. And the managers in the print firm felt themselves so occupied with emerging operational issues than such an overall question as strategy to them was seen as outside their reach.

Small firm strategy is characterised by a large majority of emergent issues compared to the number of well-planed, objective driven issues. It is closely coupled to important operative activities within the field of product development, external and internal communication, and to organising activities and to a large extent created by them. Thirdly, these practice-related activities are often handled as problems not formally connected to other phenomena within the firm, and very seldom discussed in a language of strategy. Such issues are often not foreseen, and they are only gradually including environment, goals and resources.

The reason why emergent issues play such an important role in small firms competing in changing environments is the constant search of these firms to find, understand, develop and stay in its self-defined most lucrative niche, and as a result of this search and safe-guard operation concerning the trajectory, the management constantly run into conditions rather unknown to the firm. Such unknown emerging conditions are created by the intermingled operations between the different competing firms each searching to form their niche in their concepts, and competing to keep other firms out of that niche. This creates a part of the complexity phenomena that has to be handled strategically. This handling is normally done with incremental actions based on limited information, and both customers and competitors act from interpretations of such new methods in their search to find the right product or variant and the right counter-measure in the form of broad variety of price, rebates, logistic etc. to prevent other firms to get too close to the niche. Emergent strategy is in this way a constant interpretation and counter-interpretation between firms, customers and competitors based on different contexts and on very limited information. It is not a very neat and conform set of actions as they are defined in formal market economy theory.
EI 9 COMPETITION INTERPRETED

The manager of the food company saw competition as a process where his unique product gained power when the customers had tried it and assessed it as better for their purposes. So the problem for him was to get them to try it so he fully could use his personnel and his production facilities. The consultancy had some of the same attitude especially to its consultancy services and could not understand why not more customers made use of it. Finally the print company was aware that their product was not different from the competitors’, but the way it operated on delivery of tailor made solution on short notice prioritised them in a positive way in the eyes of their customers.

Most emergent strategic action is not exclusively based on interpretation and reaction to external forces. The firm and its crew interact in the emerging process through the trajectory it tries to follow, and the common sense this creates, based on its competences, traditions, routines and operational practices. When the trajectory meets gradually changing conditions in the market in many cases the firm tries and is able to adapt such changes in an operational manner nearly automatically through its present sense making and respond to customers and competitors in a competitive way. This kind of change processes will in many cases function nearly unnoticed not only for the environment, but also for the firm itself. In other cases it will lead to more visible, but still small changes at the operational level. But in some cases such incremental solutions are not enough and so the traditional sense making of the firm is challenged, and when this challenge is sufficiently important for the contextual development of the firm it becomes strategic.

Such emergent processes of that nature are in some cases seen as a problem or a threat, in other cases an opportunity or a chance. In some cases it might even be interpreted as an opportunity and a threat at the same time. Some processes of this type can be predicted by the small firm, but many seem to appear quite unexpected. And even those that can be predicted are not always met with an efficient response by the firm. Management and employees have to understand and accept the issue as strategic, develop a response that include the context, and force the response into action. That will be difficult in many organisations, but especially difficult in small firms, because it touches upon and demands change in the main trajectory of the firm, and in this way change important common sense among the participants. Strategic change demands change in interpretations and contexts,
sometime even in paradigms. In this way it changes the important mechanisms that bind the organisation together.

**EI 10 STRATEGIC CHANGE OF THE TRAJECTORY**

For a long time the manager of the food company did not accept the strategic importance of his sales function because accept to him would mean a change in the trajectory that gave technology priority. In the consultancy the IT consultancy services seemed mostly to stay as a strategic dream not followed by operational activities and resources. In practice the firm mainly supported activities in running standard IT courses. In the print-firm the management accepted the danger in the dependency of the one large customer, but it did not have the right answer to this in its concentration on the operational aspects of the firm.

In this way strategy and strategic change are different from operations and operational change because through changing the trajectory it alters important relationships between the intentions of the environment, the intentions of the firm and the ways the firms resources are deployed to handle these to the firm important relationships. These changes are connected to conceptions as organisational change, overall changes in marketing, financing, and logistics, and sometimes even dramatic turn-around of an organisation. In this last case it also changes the paradigm that has formed its past.

At the same time in practice strategic challenges often become rather fuzzy for management because of the informality within such firms and the unclear external conditions. Informal relations cannot be changed through formal channels it has to be done informally. Everybody have to change their cognitive schemes to change their mutual common sense, concepts and actions, and vice versa. This has to be done in a local environment steered by the previous common sense and interpretations and with a considerable weight on practical and operational habits.

**EI 11: UNDERSTANDING STRATEGY AS PRACTICE**

During the analyses, presentations and discussions at the seminars between managers, including the three managers in focus here, strategy became through those discussions increasingly connected to their thoughts about daily practice. Most clearly to the manager of the food-producing company, who realised that his unsuccessful hiring of sales persons, the
coincidental demand from Asian customers, occasional newspaper articles made by journalists, which had drawn the attention to the product, and the establishment of a company governing body containing some of his close friends was not enough to develop the firm. He started a process of rethinking and sense breaking that includes sales to get a new conception of the core of his firm. Differently from this the management of the print firm realised that they were very dependent on the one large customer, and that their strategic opportunity seemed to be increased efficiency in tailor-made, on-time deliverance, and that relying entirely on small customers seem too dangerous. The consultancy did not in the period studied get closer to a decision on they should follow the demand from the market or the desire from the co-owning crew.

Steps toward a conclusion: Dealing with complexity strategically in a situation of crisis
What are the ways to act for small firms of for instance a world-wide economic crisis where the reactions of customers, competitors, financial institutions, governments and the firm itself are unprecedented and unpredictable? Defined from the three small firms, serious changes in the environment could be met in different ways. Some reactions are operational others are strategic. To meet a larger crisis does not necessarily mean giving a strategic response. As it has been shown strategic responses might be difficult to handle in small firms. Therefore operational responses within a well-known context might in some cases be more efficient. An operational response means lowering prices, increasing rebates, decreasing the time of deliverance or other kinds of side-payment for customers. This means less income and to some extent increased costs. It is an operational way to stay within the context and using the existing common sense in the firm to increase efficiency.

The culture and values in many small firms allow and support this because management has a rather close relationship to the other members of the organisation, and it is possible to convince the majority that this is ‘business nearly as usual’ and the changes only will be temporary. If the management itself shows a willingness to work harder for less money, as it was seen in the print firm and the food firm, this might be a way to survive, and it will make it possible and relevant for all members including the management to search for slack that has developed in more prosperous times. Such an operation builds on the existing paradigm of the firm that in general terms expresses: ‘we are small, we are together, and we are willing to support each other’. It is to use the common sense and the culture to stand up against
temporary problems. But it is not always an efficient way to fight against a market crisis. Two situations become dangerous when a market crisis has a longer duration.

One is the situation where the crisis results in an absolute financial necessity to fire crew members. Here a well-knit organisation easily gets into troubles because one important factor in a small firm is trust. Trust in the manager’s ability and will to keep the organisation as it is and keeping all members on board. The other is the problem of critical mass where a small firm often has fewer possibilities in reducing staff because it is closer to a situation where all functions, despite the broader array of tasks for each, no longer can be cowered efficiently.

**EI 12: HANDLING CRITICAL MASS**

Despite the prosperous period in which these three firms were analysed, both the print firm and the food firm had felt the consequences of critical mass. The management in the print firm reported and complained about the fact that they normally had to take care of too many managerial functions from negotiation with the one big customer to solving specific quarrels between individual members of the staff. Occasionally they even had in crisis situation to manage logistics and deliverance of products. They could not afford to act differently. The food company was also pretty close to a critical mass situation where the manager deliberately lowered his income to be sure to have a complete production crew available. The consultancy seemed because of its structure of each member teaching individually not so close to a critical mass, but anyhow the fact that they worked with IT teaching instead of consultancy might be seen as a defence against critical mass.

The question why small firms sometimes try to solve a crisis through operational means can be answered in two sentences. It has shown to be the best way historically, and it seems much more difficult to handle a strategic shift. The first answer is connected rather directly to how complexity is handled: the firm has selected a trajectory, a niche and contexts, and common sense has developed. The firm is using its experiences. At the same time it has through its niche and its contexts established a well-trained activity pattern toward customers and other stakeholders. So perhaps a quite new and different response on a crisis might be devastating for the firm itself – it might ruin its only basket.

The second factor relates to difficulties of making a strategic change in a period of dramatic turmoil in the environment as it is experienced by the firm and its management. This
theme became perhaps by accident through the participating managers willingness to discuss
it a central theme in the StraCon – project from which this paper draws its conclusions. It is
difficult to make a strategic change when it seems mostly needed. One could have the
impression that a small firm with a visible centre was the ideal place for carrying dramatic
change through: ‘The leader command and the crew obey’. But seen in the perspective of
complexity, contexts, paradigms and sense making it is not that simple. A small firm and its
management are closely tied to its trajectory, and there is not any other trajectory or another
niche the firm can jump over to. To understand this it is necessary to go back to thoughts
expressed in different forms of the three managers: The print manager: We have to keep on
doing what we have done in the past even if we have not the necessary managerial resources
for this. The consultancy: Even when we want to increase consultancy and decrease teaching,
it is not the right time at the moment. And the food company manager: I am convinced that I
have to change the concept I am leading the firm after, but I am not especially happy about it.

Important difficulties of making strategic and contextual change in a small firm are to a
large extent coming from the manager(s). She or he has to work hard with themselves to
create a kind of sense breaking that looks critical on the existing contexts and paradigm of the
firm, which in this perspective also is the manager(s)’ contexts and paradigm. The most
revealing example was the food company manager who despite his large intellectual and
technical capacity had great difficulties to persuade himself of changing his way of seeing his
own function. Managers of small firms are getting their experiences from their own struggle
to develop the firm and in this way developing contexts and paradigms to handle complexity.
It is a process that makes them as managers vital to the firm, but at the same time stuck in
their own trajectory.

The vital part of this relationship is connected to the way the crew experience the
manager as the centre of the firm. An example has been mentioned of the print manager’s
function as conflict-solver within the firm, but in all three firms the management plaid an
important role through a number of different mostly practical and operational activities to
create and strengthen the contexts that binds the organisation together. Therefore as well as a
manager cannot be replaced in such a small firm without changing the entire firm, the
manager cannot with success change his conception of contexts, niche and paradigm without
involving the entire crew in that process.

This opens for a concluding discussion of healthy ways to deal efficiently with strategy
in small firms. The first comment on this reflects how the managers in the StraCon project
saw this. The three managers of small firms were sure that increased theory could not solve this problem. They were in fact in this supported by the majority of managers in medium sized firm also participating in StraCon. But at the same time they also were sure that their own practice and experiences neither could handle this problem without some form of assistance. The process at least had three stages: To see the incapacity in the present situation, to develop an idea for a new contexts and perhaps a new paradigm, and to get the new contexts understood and internalised in the firm and among important stakeholders. These stages have to be seen as intertwined in each other and have an informal nature that suits the traditional culture within small firms.

What the StraCon project worked through were dialogues between managers from firms not competing or cooperating with each other. In the research project the process was supported by researchers, especially supporting the structures around these dialogues. Talks between managers from different firms are more efficient to open a dialogue on strategy in one firm than talks between those stakeholders that many managers in small firms in practice traditionally turn to. New eyes make it possible to look more freely and innovatively on the existing contexts in the firm and to try new ways. This was one important conclusion from the StraCon project.

But such an opening of a sometimes locked situation has to be supported by information on how these contexts function in the daily life of the organisation. Here the manager is not sufficient as the only supplier of information to this process, because he or she is too involved in contexts and paradigm. What we did in StraCon was to send researchers into the firm who together with the manager developed specific strategic cases based on actual firm data to be presented for the other managers. These cases were developed from interviews within the firm and written document, but always with the consent of the manager. A case presented by the manager was the introduction to a dialogue between the managers to review and assess the strategic situation of the firm, and with the intention to make the firm in focus more capable either to stick to its contexts and paradigms or to change it in a strategic way.

Important are here also the processes that run at home – within the firm – because if the manager tries to change contexts without involving the rest of the organisation he might see new possibilities, but that will not help if the crew still is wrapped in the old contexts. This will only create an unclear process concerning old versus new contexts. Instead the manager
has to use his informal relationships to the organisation with an operative interpretation of the new strategic ideas to start an internal communication.

As far as we reached in the StraCon-project what show to us to be the way is, as concrete as possible, to use crisis situations to involve a large part of the members of the organisation in an ongoing search on how the historical paradigm of the organisation can be coupled with the changed conditions for in this way to get rid of outdated contexts and outdated practical tools, and start with the manager at the steering wheel to invent or re-invent the dynamic forces of the organisation. This process will be part of the focus in a project, which I together with a colleague have started involving a number of managers in an interactive and dialogical process where the re-construction of contexts is combined with strategy as way-finding. This process should open for an interrelated activity where the self-reflexivity of the manager is combined with a process of reflexivity among the crew and reflexivity for the organisation on the change of contexts. This important process might be difficult to carry through in a small organisation with limited resources, but in periods where change is immanent it might be necessary.

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Abstract:

‘Formal procedures and conflict resolution in the smaller business – a question of balance’
by Professor Lynette Harris, Division of Human Resource Management, Nottingham Business School, The Nottingham Trent University, United Kingdom.

Managing conflict at work can be particularly challenging for smaller businesses that lack internal HR expertise and depend on external advice which may take insufficient account of the organisational context. This lack of expertise is seen as a contributory factor in the long standing over-representation of smaller businesses in UK Employment Tribunal claims (Earnshaw et al., 1998). For example, SMEs with 50 to 249 employees were found by Hayward et al. (2004) to generate some 21% of all such claims.

To specifically address the problems experienced by smaller business in resolving individual workplace conflicts, statutory procedures were implemented in 2004 in the UK with the aim of establishing minimum standards for handling grievance and disciplinary issues. In practice, these procedures have been heavily criticised for ‘negative consequences that outweighed the benefits’ (Gibbons: 8-9) by encouraging greater formalism rather than the early resolution of disputes and are being repealed; the current policy aim being to promote early work place resolution. The proposed paper will report on findings from a qualitative study of dispute resolution in SMEs undertaken for the UK’s Advisory, Conciliation and Arbitration Service (Harris et al. 2008). Through six case studies and four focus groups, the study explored how small business employers handled individualized conflict at work, the influences on their practices, sources of support as well as their views on the additional support needed to support an early resolution of disputes.

Whilst the case study evidence revealed that concerns about litigation and demonstrating fair process had led to early formalisation, the case study employers and focus group participants felt that an informal approach to managing employment relationships was more appropriate for the close working relationships that were essential to effective working in a small business environment. The tensions between formality and informality in conflict resolution in smaller businesses will be the focus of the discussion in the proposed paper.

References:


Paper

Formal procedures and conflict resolution in the smaller business – a question of balance.

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Abstract
This paper examines conflict resolution in smaller businesses who can experience particular challenges due to a lack of internal HR expertise and a high dependency on external advice; identified as contributory factors in the long standing over-representation of smaller businesses in UK Employment Tribunals. To specifically address these issues in SMEs, statutory procedures were implemented in 2004 to provide minimum standards for handling grievance and disciplinary issues. In practice, the procedures have been heavily criticised for encouraging greater formalism rather than early dispute resolution. Findings from a study conducted for Acas into how SME employers handle individualized conflict at work reveal that their concerns about litigation had led to early formalisation although an informal approach to managing employment relationships was seen as more appropriate for effective working relationships in a small business environment. The tensions between formality and informality in conflict resolution in smaller businesses are the focus of the discussion in the paper.

Key words
Conflict, formalisation, employment relationships, litigation, early resolution
Introduction

The approaches adopted by smaller business to individual workplace disputes is a particularly topical issue in the UK following the repeal of the 2004 statutory procedures for handling disciplinary issues and grievances in April 2009 and the present government’s policy emphasis on workplace based conflict resolution. This paper draws upon findings from a qualitative study of dispute resolution in SMEs undertaken by the Universities of Nottingham Trent and the University of the West of England for the UK’s Advisory, Conciliation and Arbitration Service (Harris et al., 2008). Whilst the aim of the ACAS study was to explore approaches to individual disputes in small firms as a means of identifying what was needed in terms of support for early workplace resolution, the discussion here will focus on those factors which impact on the approaches to handling conflicts in smaller businesses particularly the degree of formalisation. It is intended to particularly examine how these can support or impede early workplace dispute resolution in smaller organisations.

The absence of formal procedures has long been identified as one of the principal causes of the disproportionate number of employment tribunal applications involving small businesses (Tremlett and Banerji, 1994; Earnshaw et al., 2000). In 2003, for example, UK employment tribunal applications revealed that businesses with less than 250 employees formed 62% of all tribunal applications whilst constituting only 37% of the workforce (SETA, 2003). It is further identified that claims particularly occur in organisations employing between 50 and 249 employees (Hayward et al. 2004; Gibbons, 2007:16) where, it is argued, well communicated processes for conflict resolution are required but there is commonly a lack of sufficient internal specialist HR expertise (Harris, 2002a).

Prior to the government introducing new statutory disputes procedures in October 2004 as part of its 2002 Employment Act, the then Department of Trade and Industry (DTI) estimated that procedures for handling workplace issues relating to discipline or grievances were inadequate or lacking in some 800,000 small businesses. It was concluded that this was an important factor in the greater propensity for smaller businesses to both experience and lose employment tribunal claims. To address this Gerry Sutcliffe, the employment minister at the time, saw the new procedures as being particularly designed to address the needs of small firms and their employees although it was also intended that these statutory procedures would provide minimum standards for larger firms to improve upon (Parker and Arrowsmith, 2004).
The 2004 regulations introduced a statutory three-stage procedure which required a written statement setting out the alleged issue, a meeting between the parties to discuss the matter at which the employee had the right to be accompanied and the opportunity for an appeal. A principle aim of the new procedures was to encourage employers and employees to engage earlier workplace dispute resolution but, from the outset, they attracted criticism. It was predicted that the regulations would, in practice, lead to the increased complexity, greater formality, legalism and costs arising from the involvement of lawyers at an early stage (Hepple and Morris, 2004).

Following the introduction of the statutory procedures, concerns grew that dispute resolution processes had indeed become overly complex and were costing all the parties too much in terms of both money and time with a disproportionate impact on smaller businesses. This led the government to have an independent review undertaken by Michael Gibbons of the UK’s dispute resolution arrangements which was completed in 2007. The Gibbons review concluded that whilst the statutory dispute procedures had brought more clarity about the steps to follow, their application had resulted in ‘unintended negative consequences which outweighed their benefits’ (Gibbons, 2007: 8). A frequent complaint from employers concerned the cost of the dispute resolution processes to businesses with the average tribunal case estimated as costing an employer £9,000 to defend and taking up some 9.85 days of the business's time (Gibbons, 2007:4). As an employer’s key means of defence against legal claims was procedural compliance, Gibbons observed that the regulations had led to greater formalisation in dealing with individual disputes at work that could have been resolved informally.

Furthermore, for small business employers putting things in writing was often ‘counter-cultural’ and could ‘actually exacerbate a problem rather than to help to solve it’ with the regulations leading to a focus on the application of the procedures rather than the merits of a case. The emphasis on formal process created an adversarial climate and encouraged a litigious approach to conflict resolution which had became an impediment to the early resolution of individual employment disputes and the consideration of outcomes not provided by the tribunal system, such ‘as an apology or changes in behaviour’ (2007:9).
Gibbons recommended the replacement of the statutory procedures with ‘clear, simple, non-prescriptive guidelines on grievances, discipline and dismissal in the workplace’ (10) and increased support for promoting early alternative disputes resolution (ADR) in the workplace. His report recommended that the government should offer a free (publicly funded) early dispute resolution service including, where appropriate, mediation. It was suggested that extending Acas’s activities might be the simplest means of supporting early workplace resolution; a recommendation that led to ACAS funding the study whose findings reported in this paper.

Dispute resolution in SMES

Employment relations in small businesses have long been associated with informality with ‘little in the way of control systems’ (Wilkinson;1999:209). The same analysis of a lack of formal procedures for handling workplace disciplinary issues and grievances informed the introduction of the statutory regulations. But the findings from the 2004 Workplace Employment Relations Survey (WERS) presented a different picture of formal procedures being widespread (Kersley et al. 2006; 215) across all sizes of businesses. Forth et al.’s (2006; 94) more detailed analysis of the WERS data relating to small and medium sized enterprises revealed that whilst workplaces of small firms continued to be less likely to have formal grievance and disciplinary procedures than large firms, they ‘commonly had procedures for resolving individual disputes’. A reported 63 per cent of small firms had formal grievance procedures, rising to 87 per cent of medium sized firms with up to 250 employees and to 99 per cent of large firms. The incidence of formal disciplinary procedures followed a similar pattern with figures of 69 per cent in the smallest firms, 92 per cent in medium sized firms and 99 percent of large firms – the overall figure for the adoption of grievance and disciplinary procedures across all SMEs being 73%.

Even in the smallest firms the formal procedures for resolving individual disputes followed at least some of the steps laid down in the statutory procedures although few followed all of them. Whilst this may be construed as evidence of the impact of the 2004 regulations in encouraging the adoption of formal procedures in smaller businesses for handling individual disputes, it should be noted that the data for WERS 2004 was collected prior to the introduction of the statutory procedures. A more likely explanation is the one offered by
Hepple and Morris (2002) that the increase in formal procedures has been a response to the growth in litigation due to the increase in statutory rights particularly in smaller firms where they were lacking.

In terms of the conduct of employment relations, the Bolton Committee in 1971 characterised small firms as attaining relatively harmonious relations because they were small and non-bureaucratic leading to employee relations being managed informally and flexibly. By the late 1980s Rainnie (1989) provided a very different interpretation of employee relations in small firms characterised by poor working conditions and dictatorial management. The argument was that the lack of formal processes to provide standards and consistency in managing the employment relationship contributed to this ‘bleak house scenario’. Forth et al. (2006:2) concluded that an informal approach to employment relations still characterises much of the SME sector but the impact of this preference for informality continues to be interpreted in different ways. Whilst the Bolton Committee equated it with workplace harmony, other research studies (Earnshaw et al. 2000; Atkinson and Curtis 2004) suggest it can be a source of tension and disruption in employment relations. As Cassell et al. (2002; 674) observe these different interpretations demonstrate the difficulty of generalising about employment practices across the rich diversity of small firms and reinforce the importance of taking into account the impact of the relationships smaller enterprises have with larger organisations. This point was illustrated in our study by the reported difficulties in handling disputes in small voluntary sector organisations by employers who applied complex formal procedures frequently based on those adopted in the large public sector organisations they worked with.

Ram et al. (2001:846) define informality in employment relations as ‘a process of workforce engagement, collective and/or individual, based on mainly unwritten customs and tacit understandings that arise out of the interaction of the parties’. This interpretation views the degree of informality as both dynamic and context specific. It is argued that when the advantages of formalisation are perceived to be greater than those of informality the balance will swing in favour of increased proceduralisation (Edwards et al. 2004; Harris, 2002a) as a defence against costly litigation. But as Earnshaw et al. (1998; 2000) found in their DTI commissioned research, while small firms adopted formal procedures as an insurance against employment tribunal claims, this strategy failed when SME employers didn’t follow their own procedures laying themselves open to claims of unfair treatment through an
inconsistency of approach. A situation that was exacerbated by a lack of internal HR expertise and training for line managers in handling disciplinary issues. In most firms it was observed managers preferred to have a ‘quiet word’ with the employee in the first instance but, without due expertise, this could confuse the issue of when a first warning had been given. Once the shift from the informal to formal procedure had taken place, it was seen as an indication that a decision had been made to dismiss. Similarly our study revealed a view among employers that once a formal process had begun in a disciplinary issue, it was commonly the first step in exiting that employee from the organisation. This is consistent with the Marlow and Patton’s (2002) finding that individuals who don’t fit into the close working relationships which characterise the small firm working environment are likely to be removed in the interest of maintaining the social cohesion of the work group.

Employment relationships are increasingly shaped by the potential for litigation threatening the mutual benefits associated with more informal approaches to employee relations (Harris, 2002b). This has a particular relevance for SME managers who work in close proximity with the workers they supervise and will routinely face the challenge of maintaining control at the same time as encouraging productive co-operation. As Marlowe and Patten (2002 : 537) point out their findings ‘support the notion of informality regarding the employment relationship but suggest a rather more complex juggling act by owners to retain ownership authority “whilst manufacturing consent” by adopting the role of co-worker.’ Certainly the majority of the small firm employers participating in our study were aware of the importance of clear control systems but also of maintaining harmonious employment relationships in the interests of the business. What the most recent WERS findings reveal is that, in general, SME employers are no worse at individual dispute handling than their counterparts in larger companies. Indeed small firms were found to have lower rates of absenteeism and retention and their employees, on average, report being more satisfied with some aspects of the way they were treated by managers than those in larger firms (Forth et al., 2006).

**Approach and methods**

To develop a greater understanding of how small business employers handle individual disputes relating to discipline or grievances at work favoured the adoption of a qualitative case study approach (Holliday 1995). The research had a specific brief to explore;
• management approaches and practices in the small firms sector in handling employee grievances and disciplinary issues,
• the types of internal and external support that the owners and managers of small businesses currently draw on in the management of these matters,
• what owner/managers perceive to be their needs in handling dispute resolution and the forms of additional support services they would prefer and would be most likely to use to assist workplace dispute resolution.

Given the focus of the research and its limited time scale, there was no opportunity to explore employees’ views or those of trade unions. The case studies were selected from small private sector firms with 25 to 100 employees, operating in a range of industries. The choice of the size of the companies was shaped by trying to explore approaches to conflict resolution in the type of smaller businesses at the heart of the public policy debate which led to the 2004 statutory procedures. The six case studies companies represented both manufacturing and the service sector and were involved in waste management, food processing, printing, marketing communications, shop-fitting and environmental consultancy. All the businesses were well established and had been trading for at least 10 years and in three instances for 25 years or more. Whilst the largest permanent work force was just over 100 employees, some of the case study firms also made use of temporary staff (normally employed through agencies), sub contractors or freelance consultants. In one firm, Shopfitters Ltd., the sub contract labour force could be as large as 150, doubling the size of the permanent workforce. Similarly the workforce at Food Processing Co could increase by as much as half again at those times of the year when it employed agency workers. The size of the business inevitably influenced the ability of these organisations to provide internal HR support and, reflecting the research design, none of the case studies had an internal HR specialist. In some sectors employers had access to or were members of an employers association for advice and support but all of them relied on external sources for advice. The point at which this was sought, from whom and whether or not this was paid varied. Details about each organisation, including the composition of the workforce, are summarised in Table 1. The case study companies have been anonymised as agreed with the participants.
Semi-structured interviews were conducted with owners and managers in the six firms during the last three months of 2007. In addition, four focus groups were conducted to gain views from a wider sample of small business employers and other stakeholders working with SMEs. The semi-structured interviews at each firm took place with the owner or a senior manager; the manager with responsibility for HR matters; and a line manager. In practice, in a couple of the smaller firms, there doubling-up in manager job roles so that, for example, a company director was the line manager. In these case studies there were two interviews rather than three. A common interview schedule was used and the interviews, each lasting around an hour, were tape recorded.

The four focus groups fell into two categories in terms of participants and the ways in which they were contacted. Two comprised SME owners and managers with a group taking place in each region. These were organised by Acas through a research recruitment agency with participants randomly sampled. In practice, in both regions a majority of the participants who actually attended were from the voluntary sector which may in itself be an indicator of the particular issues for the sector in conflict resolution. The second set of focus groups included invited employers and other stakeholders working with small businesses. These included the Federation of Small Businesses, Engineering Employers Federation and Confederation of British Industry among others. Each of the four focus groups occupied around two hours. The discussion was based around a common list of issues (although some excited debate more than others) and was tape recorded and transcribed. Participants were again asked if they were willing for their organisation to be identified but where anonymity was requested the wishes have obviously been respected. When organisations were willing to participate but a representative was unable to attend on the date set for the focus group, where possible, interviews were conducted with these individuals by telephone or at the organisation’s premises.
Table 1: Profile of case study organisations

<table>
<thead>
<tr>
<th>Organisatio &amp; Industry</th>
<th>Characteristics</th>
<th>Ownership &amp; Structure</th>
<th>Workforce size</th>
<th>(Main) types of employees</th>
<th>Labour market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Consultant s Professional services</td>
<td>Niche market player Business fluctuates Clients mainly through recommendations or repeat business. Turnover £3m pa</td>
<td>Ltd.Co. Senior mgt team of 3 New line mgt structure</td>
<td>47</td>
<td>Majority professionals (graduates) e.g. landscape architects, ecologists. Small support staff Permanent</td>
<td>Shortage of some professional skills Turnover low but increasing</td>
</tr>
<tr>
<td>Shopfitters Ltd Manufacturing and retail</td>
<td>Growing steadily. Competitive advantage is speed and reliability Seasonal work-business mainly through recommendations Turnover £22.5m pa</td>
<td>Ltd. Co. Owner Manager 3 Mgt levels. Lean in main support areas</td>
<td>70 perms &amp; up to 150 temps</td>
<td>Mainly craftsmen (carpenters) High users of sub contract labour Increasing use of migrant labour</td>
<td>Craftsmen hard to recruit Retention good but recruitment &amp; retention is a concern.</td>
</tr>
<tr>
<td>Marketing Services Co professional services</td>
<td>Growing. £1.5 m turnover. Public &amp; private sector clients Mostly retained business</td>
<td>Ltd. Co. 6 Board members</td>
<td>25</td>
<td>Professionals, mostly graduates &amp; female Freelances for project work</td>
<td>Recent increase in labour turnover but comparable with the industry</td>
</tr>
<tr>
<td>Waste Management Co Waste disposal and recycling</td>
<td>Formed by management buy out 3 yrs ago Growing steadily</td>
<td>Ltd. Co. Owner Manager MD, Ops Mgr, Co. Director (wife)</td>
<td>40 + agency (10)</td>
<td>Drivers &amp; unskilled yard staff</td>
<td>Buoyant labour market especially for drivers</td>
</tr>
<tr>
<td>Stationery Manufacturer Co</td>
<td>Highly competitive sector. Emphasis</td>
<td>Ltd. Co. Managing Director</td>
<td>100</td>
<td>Majority shop floor mfg, plus support staff &amp;</td>
<td>Difficult to recruit graphic designers &amp; management</td>
</tr>
</tbody>
</table>
Manufacturing

| on cost reduction – overcapacity in industry | 3 person senior mgt team. | designers. Use placement students | skills Retention good |
| Focus on specialist products | |

Food Processing Co Manufacturing

| Growing Supplies Seasonal business fresh food prep to food mfg. | Ltd. Co. 2 Managing Partners 16 managers with 3 mgt levels | 70 | Low skilled, manual workforce-. Used migrant agency workers | Turnover low for the industry (10 - 15%). |

Findings

All the case study organisations worked in competitive and, in several instances, highly volatile markets. A tight labour market across a range of skilled and unskilled jobs at the time of the study was reported as impacting on the level of formal grievances. In areas where skills were in short supply, for example skilled trades or drivers, our employers reported employees ‘voting with their feet’ by obtaining alternative employment rather than pursuing a work problem through a formal grievance. It also meant employers had to think twice before dispensing with the services of an employee it could prove difficult to replace. Nonetheless, as expected, there were differences in the extent of workplace conflict and how these issues were resolved by our case study companies and focus group owner/managers. Whilst these were influenced by the sector, organisational history, owner manager profile and the nature of the workforce, there was one factor the study’s participants shared; the prevailing legal context.

With the exception of one employer who routinely risked possible litigation by short circuiting procedures on the grounds of business expediency, the other case study employers reported that the potential costs to the business arising from employment tribunal claims had led to greater formalisation in their handling of individual grievances and disciplinary issues. The approach taken to resolving individual conflicts were found to be predominantly influenced by a concern to minimise the risk of litigation but these also reflected the extent of the owner/manager’s interest and expertise in people management, management and supervisory capability, demonstrating fairness through consistency of treatment as well as the nature and source of any specialist advice. These factors have been used to organise the
discussion of the research findings although it is recognised that these themes are interrelated and overlapping.

**Concerns about litigation**

The actual experiences of employment tribunal claims varied across the case studies and SME employers in the focus groups. Although only two of the case study owner/managers had experienced employment tribunal claims in the past two years, others recalled claims under previous managements. For example, in the Waste Management Co. a series of costly claims against the business had stemmed from inadequate procedures. Such experiences served as a catalyst for amending HR procedures. Indeed, four reported changing their HR practices and developing their formal procedures as a result of past tribunal claims.

This was considered to be the most effective means of responding to a legal environment where focus group participants and the case study interviewees felt the balance in employment law had become too ‘pro employee’ although as previous studies have revealed there was rarely any principled objection to individual employment rights (Blackburn and Hart, 2002; Harris and Foster, 2005). This owner manager’s comment typifies that view:

*I have no problem with individuals having rights at work but at present the balance is in favour of the employee, not someone trying to run a business - you are always on the back foot.*

(Finance Manager, Plant Hire - focus group)

There was widespread criticism of the complexity of employment legislation, which was described as a ‘minefield’ for smaller businesses. Those employers who had faced ET claims had clearly found the experience of defending their decision-making at a Tribunal hearing an uncomfortable one

*...they sit above you and they look at you. They look down at you. ... it’s not sitting around a table agreeing or something. I mean I could take anyone in there and they would agree it’s a court experience.*

(Owner/manager, Shopfitters Ltd)
Whilst not necessarily informed by their direct experiences, some SME owners and managers had the view that once an issue reached the employment tribunal stage, a small business was more vulnerable and more likely to lose than a larger organisation. The following quote is illustrative.

*The dice is loaded against the small employer, if an individual goes to a lawyer they will always be able to find some flaw in your process even if the action taken is perfectly justified. We are the wrong size to have HR advice on tap as they do in larger companies and, at the end of the day, my priority is the business so we are more than likely to have made some slip up in the process. It’s a minefield - the best way is to nip problems in the bud as early as possible, not allow things to fester and to make sure you record everything stage in the process even though that takes up a lot of time.*

(Owner/Manager, Waste Management)

All six case study organisations wanted to avoid litigation and described this as a foremost influence in their firm’s approach to handling conflict situations which, in all cases, involved provision for resolving conflict within the workplace, and at an early stage. Over and beyond the fear of litigation, there was a widely articulated acknowledgement that the impact of unresolved conflict could be particularly damaging in a small business environment and the majority of our owner/managers were anxious to be seen as fair employers. This was identified as important, not only to assist recruitment and retention, but also for employee motivation and developing workforce commitment to the business’s priorities. A director at Marketing Services explained that substantial effort was made to achieve harmonious workplace relations.

*This is a nice organisation to work for - we work at that ... we will sit down and deal with whatever the issue may be and resolve things as quickly as possible because we are a small business and we cannot allow things to linger on.*

(Finance Director, Marketing Services)

Similarly at Environmental Consultants, a company director concluded that while employment legislation was burdensome on business in the sense that it obliged firms to
devote resources to HR expertise and attend to procedural formality, it was also ‘doing us a lot of good’. That is to say he thought statutory regulation could be a stimulus to good management practice. Despite an acknowledgment that employment regulation could have a positive impact on employee relations, the general consensus was the adverse effects of regulation outweighed the benefits. Increased employment rights and litigation had placed pressure on SMES to resort to formal processes more quickly which could exacerbate conflict situations and erode the prospect of resolving an issue. As the owner of the stationery manufacturing company explained:

*I’m not in favour of the rules as they are … it’s quite difficult to identify whether you are acting through a constructive process. At times there are very fine tolerances between whether you are implementing a disciplinary procedure to correct an action, or whether you activate the disciplinary procedure to create an inevitable conclusion …*

Although moving into formal procedure was seen as the wisest approach in a climate viewed as dominated by individual employment rights, the majority of our case study owner/managers and focus group participants felt that the informal approach to resolving issues, traditionally associated with smaller businesses (Edwards et al., 2003), worked better and was more appropriate. Their rationale was that:

- this reduced disruption in a close working environment
- was less time consuming
- stopped things escalating
- was more appropriate to a small business culture and management style where things rapidly became public knowledge.

What emerged was a preference for informality but practices that reflected a rationale that formal processes should be adhered to as the ‘safer thing to do’ on the grounds that these provided ‘legal protection for employers’ (Antcliff and Saundry, 2009: 115). This was also the justification moving to formal process without delay if it was felt that an issue could not be resolved informally.
**Management capability**

Another explanation for the practice of resorting to formal procedures at an early stage in individual disputes was provided by an HR Manager from the British Glass Confederation which provides HR services to both large and small employers in the industry. Namely that for managers lacking the people skills needed to try to resolve things through informal processes, resorting to formal procedures was viewed as less demanding as well as less risky. As she pointed out:

*Formalisation is simply a safer bet. There is more certainty and guidance for managers who lack the softer skills needed for informal resolution which would be a much better approach to solving most issues early on in smaller businesses. Managers are not trained in the procedures they have to implement which have just been dropped into place without understanding the rationale behind them. A situation that is aggravated by the fact when managers first come to use them they are facing an immediate problem.*

Owners and managers favoured devolving initial dispute handling as far down the organisation as possible to support early resolution of conflict and most felt that the initial stage of dealing with any issues lay with first line management. This meant that like larger organisations, our small business employers were highly reliant on the capabilities of their first line managers (Hutchinson and Purcell, 2003) particularly as it was usual for a senior manager or a director to keep their distance from an issue so that they could deal with the final stages of the disciplinary or grievance procedure or an appeal. The approach described by this director was typical:

*We expect the section managers to deal with anything that is referred to them and the first stages of the procedure. They usually come and have a chat about it with me and I will check out anything that looks as though it could present a problem. It would be my responsibility to deal with anything like a final warning or a dismissal and, of course, there is an appeal stage (that goes) to the Director. Basically the buck stops with me...*  

(Finance Director, Stationery Manufacturer)
Alongside the devolution (delegation) of initial disputes handling, however, was the practice described at two of the case study companies of a manager with designated HR responsibility making him or herself available to staff to discuss problems at work informally. The ‘open door’ approach was supported by a conscious attempt to support the early resolution of employee grievances or concerns.

As well as providing scope for an internal appeal process, some owners saw clear advantages in getting involved only at the final stages. The reasons given were that this enabled them to focus on the business or even that they could be too emotionally involved with the business which was not beneficial to effective dispute resolution as explained by this owner.

*To be honest, if I was to say what we are doing better and avoiding the problems we used to have, I think it is leaving me out of it and letting Frank and June get on with it. To me it is personal if someone isn’t pulling their weight and costing us money but they won’t just jump in like I would, they would check with Acas. …I suppose they are a bit more level headed about it.*

(Owner/Manager, Waste Management)

and

*I keep out of things until I am needed. It is better for my managers. They have more authority that way and also develop their people skills. My aim is to try to get things resolved at the earliest point possible…….*

(Owner/ Manager, Coach Tour Operator - Focus group)

There was a general feeling that managers and most particularly first line supervisors would benefit from developing the skills of conflict resolution but none reported having received any such training. A number of managers had attended half day courses on employment law but the emphasis had been on the importance of complying with procedures rather than on conflict resolution. It was identified that what was needed were skills to support the application of any procedures, for example;
I accept that we need to know the legal situation and have proper procedures but it is more about support with handling the people issues, relationships are all important in a small business.

(School Pictures Co– focus group)

and

Its not just advice about process, we know that’s a minefield, what’s needed is more about solving real problems so we don’t get in the minefield in the first place.

Coach Tour Co – focus group)

A consistency of approach

An emphasis on process rather than the rights or wrongs of a particular case had led to managers placing the emphasis on ‘sameness of treatment’ as a simpler, more foolproof approach. The rationale being that this helped to promote neutrality as a principle of fair treatment (Fredman, 2001) in dealing with disciplinary and grievance issues and reduced the need to apply discretionary judgement which was more open to challenge. The approach taken by this production manager in a food manufacturing process illustrated the perceived best way of handling conflict by managers in front line roles:

I keep strictly to the rules, make sure no one is treated any differently which can be a bit harsh at times but means no one can claim I have favourites.

Production Manager, Food Processing Co.

The confidence to tailor the approach to handling conflict to the needs of the situation appeared to directly reflect the extent to which a manager were in their comfort zone in dealing with HR issues. Some felt these did not fall within their area of expertise and that the adherence to formal procedures at all times was their best protection against making a mistake. The prospect of their individual judgement being closely scrutinised can be a daunting prospect for many managers, especially the less experienced (Sheppard et al., 1994) who are also less likely to exercise discretion in decision making to accommodate individual circumstances. In contrast, where owners or their managers had wider experience or a particular interest in the people side of the business there was a greater propensity to exercise discretionary judgement (Boxall and Purcell, 2008) in the application of the procedures. An
example of this was provided by one managing partner who had significant large company
HR experience and upheld an employee’s appeal against dismissal for intimidating
behaviours in a dispute between employees of different ethnicity. He explained:

The investigation showed things were not clear cut in terms of who was responsible so I
decided to give the individual the benefit of the doubt. I had to square it with the line manager
who had followed the rules to the letter but our approach has paid off with the workforce.
They know we will do everything we can to act fairly to everyone ....... the appeal is not just a
stage in the dismissal process.

Workforce characteristics such as a high level of workers from ethnic minorities have been
identified as more likely to see higher levels of conflicts relation to disciplinary issues (Knight
and Latrelle, 2000) but as only two of our employers in our study reported a reliance on
migrant workers at peak times so it was not possible to explore this dimension further.

Some employers recognised that using the procedures as a means of ensuring consistency did
not always deliver greater fairness and saw that the process itself could become the focus of
the dispute rather than resolving the problem itself in the interests of the business. This was
commonly reported in handling cases of employee attendance or sickness which presented
particular problems for smaller employers with less resources to cover extended or persistent
absences from work but who received professional to wait for an employee to get in touch
with them and not to act on the assumption that they had left. Approaches to handling issues
could themselves become the source of a grievance to the concern of employers as illustrated
by this senior manager’s experience who saw the growth in formal procedures as leading to
greater adversarialism between employers and employees in the workplace.

We had a problem with an employee’s attendance and our office manager was dealing with
this through our formal procedure when the individual countered this with a formal
grievance against this manager that he was causing her to be ill with anxiety and depression.
... the management time this has taken up.
Coach Tour Co- focus group
The nature of specialist advice

In the absence of internal specialist HR expertise, all the owner/managers in the case study companies and the focus groups had found it necessary at some time to seek external advice on handling employment issues or specific disputes which could take the form of a fee for an advisory service from a consultancy company or a retainer to an HR consultant whose services could be drawn upon as and when required. The pursuit of advice was ‘needs led’ when a problem had presented itself which meant that the key consideration at the time was the avoidance of any potential legal claims stemming from how the issue was handled (Emmott and Harris, 2004). This led employers to seek to retain a source of advice they could turn to when required. For example, three of our case study companies paid an annual fee to an insurance provider though the industry trade association or an insurance provider offering specialist HR service. Most of the trade and employers association provided employment and legal advice through a range of channels and included the cost of legal representation in the event of a case proceeding to a hearing. Although broadly satisfied with the services received, owners and managers identified that the nature of the advice encouraged the use of formal procedures and arguably worked against considering alternative approaches to workplace dispute resolution. Because of the insurance element of the cover, the support provided focused on procedures and ‘telling us how things have to be done’:

They expect us to stick to our guns if we follow the legal process correctly.. sometimes that can be very black and white. Legal advice sets the parameters as to what you can or cannot do...more often than not we will take a much slower process than they would recommend.. we slow it down.. try to resolve it in house.
Finance Director, Stationery Co.

Our case study and focus group participants identified that could be potential conflict between the insurer’s interest in ensuring the company adhered to prescribed steps and the objective of early workplace resolution. It was understood that any deviation from the insurer’s advice could lead to the insurance cover becoming invalid and this could extend even to applying to another expert body (including Acas) for help in resolving a dispute. In short, our research participants raised two key issues in relation to the use of private sector HR insurance companies. Firstly, the employer’s flexibility of response could be reduced because the
insurer’s principle aim was to ensure that the employer demonstrated procedural compliance in the handling of workplace disputes. Secondly, the advice focused on compliance with formal process rather than contributing to the wider development of ‘positive’ people management practices. It was acknowledged that this encouraged progressing disputes through formal procedures and limited the examination of other possible outcomes such as those suggested by Gibbons, for example workplace mediation.

In this respect the advice provided by Acas was seen as likely to offer a wider perspective as it was not directly related to the provision of insurance cover but again the services employers were aware of ACAS offering (largely the help line) were seen as satisfactory as but that the advice provided took insufficient account of the small business context. The very impartiality of Acas was viewed as valuable in dispute resolution but this was also an issue for some employers, for example, one owner manager in the focus groups who had made a call made to the Acas help line observed:

_It's was all very impartial and told me the law but to be honest I wanted to be told exactly what to do to make sure we kept out of trouble_

This wasn’t the only view. The owner/manager of Waste Management Co saw the advice from Acas as the most reliable source and, as such, a form of insurance if things went wrong provided it had been followed to the letter. Yet whilst the advice was ‘clear, precise, if not always palatable’ it was seen as ‘often unrealistic in terms of our industry needs’.

What emerged was that owner/managers wanted support that was more tailored to the small business context and, in the absence of anything specifically focused on their needs, tended to pay for specialist advice when problems reached a stage that they felt out of their depth or wanted to be told how to avoid making a mistake. The emphasis then become one of procedural compliance rather than looking at alternatives to resolve an issue which was reinforced by a widespread lack of knowledge about alternative dispute resolution (ADR) or the wider services that Acas could offer although paying for such support again proved to be a tension for employers. Whilst employers saw real benefits in the impartiality of Acas, they felt that if they had to pay for such services it changed what they then expected in terms of support as employers who were ‘footing the bill’. There was widely held view that as
government was responsible for the legal framework then it had a responsibility to support SMEs who lacked the necessary internal resources and expertise. As this case study owner/manager put it:

*Of course we can do with more support. We are too small to be able to afford internal expertise but big enough to need it. We have to rely on what is out there. What we can take advantage of is always going to depend on what it costs. In my view, there should be a free service for businesses of our size.*

**Conclusion and policy implications**

The findings from this study showed that, whilst the approach taken to dispute resolution differed among our owner/managers, their dominant concern was to protect their businesses against potential, costly litigation through the application of formal procedures in as consistent a manner as possible at an early stage if a difference could not be resolved. To conclude that the increasing use of formal processes was driven by the 2004 statutory regulations would, however, be misleading. Only three of our case study employers were really conversant with the requirements of the now repealed regulations. Interestingly these were also the employers who had insurance based HR advice and were particularly aware of the pressures for compliance. Most employers (including those in the focus groups) when asked about the statutory regulations referred to the different stages approach provided by the ACAS Code of Practice before the statutory procedures were implemented.

Other key influences on the adoption of formal process and their stage of application were past experiences of ET claims, the background and career experiences of owners and line managers, the product markets in which firms operated and the commercial ‘strategy’ they pursued as well as the level of interest in people issues at the head of the organisation. But regardless of sector or company history the main pressure to formalise early on appeared to be the widespread perception among the research participants that smaller businesses were more likely to lose if a claim proceeded to an employment tribunal and that this would damage the business both financially and in terms of its reputation. It was acknowledged that front line supervisory management played a critical role in the application of procedures (Purcell and Hutchinson, 2007) but recognised that any training they had received focused on legal
compliance rather than the skills of dispute resolution. As a result the main means of overcoming and gaps in managerial capability in resolving conflicts was a policy of adhering to procedures as the safest way to avoid mistakes at an early stage. Just as in larger companies, a greater emphasis on devolving of HR responsibilities to front line managers was accompanied by an emphasis on adhering to company procedures which they are expected to apply in a highly uniform manner (McGovern *et al.*, 1997). The disadvantage of such an approach being that it can descend into managing by ‘systems control’ (Watson, 2002: 382) but this approach was not only upheld but reinforced by third party advice, particularly where there was an element of insurance attached to the provision of that advice.

Just as Gibbons (2007) observed, the combination of these different factors contributed to an approach to handling disputes increasingly preoccupied with ensuring procedural compliance rather than the merits of a case. Despite their reported propensity to formalise dispute resolution, our owner/managers’ articulated a continuing preference for informal approaches as better suited to the workplace realities of small businesses. Whilst their response to increased employment rights and the potential for litigation had been to increasingly formalise their approaches to individual disputes, this frequently did not sit comfortably with what our owner/managers saw as the benefits of more informal, customised approaches to such issues. These continued to be viewed as more appropriate to the close working relationships, including their own proximity to the workforce that characterise labour management in small firms (Marlow and Patton, 2002). Whilst it is accepted that the findings from a small sample of small business employers of a similar size are limited in their wider application, the outcomes from this study provide further evidence that the approach to resolving workplace disputes has become overly dominated by concerns about penalty avoidance.

Despite the government’s promotion of earlier workplace dispute resolution in its latest employment act which repealed the 2004 regulations, it is argued that the trend will be for continuing formalisation. Whilst in theory the repeal of the statutory disputes procedures provides greater opportunities for the development of more innovative solutions to the resolution of individual grievances and disciplinary problems which may be particularly relevant to smaller businesses, the findings from this study suggest that the balance in handling disputes will remain one of compliance and penalty avoidance though formal processes until there are greater incentives to look at alternative more flexible approaches. For
example, the business case for mediation is made largely on the grounds of the costs (Emmott, 2009) compared to costly litigation but this is less of an attractive option if it may still leave a small business employer lacking internal HR expertise open to the possibility of a tribunal claim.

A preoccupation with procedural compliance rather than exploring the mutual benefits for employers and employees as a result of increased statutory rights leads Edwards (2007) to argue for a new public policy initiative for workplace justice. Any such policy framework needs to place an equal value on approaches to dispute resolution which provide sensitive, flexible solutions which take account of the circumstances in a particular case as the legal requirement to demonstrate procedural justice. An approach to dispute resolution that it is argued would be better suited to the complexity of workplace relations in smaller businesses (Ram and Edwards, 2003) and would assist managers who face the contradictory pressures identified by Nadin and Cassell, 2009 maintaining control but also maintaining positive working relationships with employees they work closely with.

To support such a shift in emphasis requires a recognition that management behaviours in the application and interpretation of organisational rules are the most significant factor on individual perceptions of fair treatment (Hutchinson and Purcell, 2003). These would require the provision of resources to support training for line managers in smaller businesses to develop and hone their skills and knowledge of conflict resolution which could lead to a greater sensitivity to individual feelings of fairness within the workplace. This would help to address the concern of employer identified in this study that increasing formalisation led to greater adversarialism in employee relations. For the majority of employees, evidence of an empathetic management responsive to their individual needs is more likely to result in a greater tolerance when mistakes do occur and reinforce a climate of workplace dispute resolution.

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WS7c: 'Owner-manager and family in business - SME culture and leadership'

Chairs:
Joan Eakin, Dalla Lana School of Public Health, University of Toronto, Canada
Tina Kallehave, University of Copenhagen, Denmark

Many small enterprises are family businesses – they are run by owner-managers, and family members often work within the business. The challenges of family businesses are widely recognized. At the same time, the special culture and ‘personal leadership’ in many small enterprises, due to the tight social relations, also create possibilities.

This session considers various managerial issues associated with small and/or family enterprises, based for the most part on empirical research. Topics include:

- leadership role and identity of CEOs
- ways of thinking about healthy organizational culture in family businesses
- averting the difficulties of family involvement
- small employers’ recruitment practices: SMEs as “inclusive workplaces”?
Presentations, session WS7c:
Chair: Joan Eakin (with Tina Kallehave)

Time: Wednesday 21 October, time: 11.15-12.45
Location: Atrium hall
Abstract:

‘Leadership in a Small Enterprise’
by H Palmgren, MEd, Head of Development, Finnish Institute of Occupational Health, Helsinki, Finland

Introduction: The success and the failure as well as the well-being of the personnel of companies are often attributed to leadership. The view that ‘the leadership dimension’ of a company represents a locus of difference between large companies and small, entrepreneurial firms emphasizes the importance of scientific knowledge about leadership in small firms. This study aims to deepen our understanding of leadership in small enterprises by examining leadership as experienced by the managers of one small, entrepreneurial company.

Methods: A case study adopting a constructivist-interpretative approach was conducted in an entrepreneurial enterprise with 35 employees operating in 7 countries and providing internationalization services to Finnish small and medium-sized companies. The data consisted of a life-story of the company by the owner-CEO and 15 interviews of the eight company managers generated during a one-year development project. The data was analysed using a phenomenographic, contextual analysis.

Results: The owner-CEO identified as an entrepreneur, not a leader. Also the managers rejected their ‘leadership’ and attached leadership to those in positions of power. They attributed the company problems to the CEO’s lack of leadership and craved for formal management processes and a leader, who would be fair-minded and strong; committed to subordinates; able to manage the company activities and operations, personnel, structure and change according to the changing situations. Most importantly, the good leader shares his power to enable also the others to contribute.

Conclusions: The need for formal procedures and a heroic leader to provide structure and order, feeling of belongingness and safety may also be the situation in other small owner-run businesses, particularly when they grow and when the owner-manager wants to remain in control of everything and sees himself more as an entrepreneur than a leader. Consequently, entrepreneurs should recognize and be sensitive to the expectations concerning their leadership.
Leadership in a Small Enterprise

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Abstract
Leadership is often seen as the premier force behind the success and the failure of enterprises and the well-being of their personnel. This study aims to deepen our understanding of leadership in small, entrepreneurial enterprises by examining leadership as experienced by the managers of one small, entrepreneurial firm. A case study adopting a constructivist-interpretative approach was conducted in a small enterprise operating in internationalization service business in 7 countries. The data consisted of the life-story of the company told by the owner-CEO and 15 interviews of the eight company managers generated during a one-year development project. The data was analysed using a phenomenographic-contextual analysis. The results demonstrated how leadership is attributed to and expected from those in position of power, to provide structure and order to the instabilities of organizational life and to support feelings of belongingness and safety. Neglecting these expectations may have unintended consequences. Entrepreneurs should recognize and be sensitive to expectations concerning their leadership.

Key words
Small enterprises, leadership, owner-managers, entrepreneurs, small firm personnel

Introduction
Attempts to understand leadership in small companies are particularly timely now, when the significance of small firms to local and global economies is increasing. Small companies are seen to play an important role as providers of new employment opportunities as well as being potential sources of innovations. They support economic growth and competitiveness of local areas as well as whole nations (Daily et al 2002, 402; Curran & Blackburn 2001, 2-3; Rouvinen & Ylä-Anttila 2004).
As the success and the failure as well as the well-being of the personnel of the companies are often attributed to leadership, this trend raises questions about the role and practice of leadership in small enterprises. The view that small companies differ substantially from their larger counterparts emphasizes the importance of scientific knowledge about leadership in small enterprises based on empirical research and theoretical analysis (cf. Burns 1997, 5; Curran & Blackburn 2001, 5-7, 15; Deakins 1996, 3, 16; Levy & Wilson 1994; Massey 2004, Smallbone et al 1997, 2; Ram 1999, 2001; Shamir 1999, 59, 67).

Leadership in small companies has seldom been the subject of empirical leadership research even though the need for scientific knowledge about leadership has not been overlooked in organizational studies. On the contrary, leadership has been claimed to be one of the most observed phenomena on earth (Burns 1978, 2). Still, there are different views about how much is known about it.

Many leadership scholars conclude that after centuries of leadership research the solution of the problem of effective leadership is still wanting (Alvesson 1996, 457; Bass 1990, 11; Burns 1978, 2-3; Ferris & Rowland 1981, 1069), and disaccords concerning the mainstream leadership research can be heard (Alvesson & Sveningsson 2003a, 359; Barker 1997, 356; Mintzberg 1989, 51).

This study provides an alternative perspective to leadership by separating “leadership” from “effective leadership” and examining leadership from the constructivist-interpretative research perspective. Constructivist-interpretative leadership research aims to increase our understanding of leadership by examining leadership in particular settings. It produces local knowledge with the option of that localness to be shared among other 'locals' - individuals, groups and organizations. (cf. Darmer 2000, 350; Guba & Lincoln 1994, 114.)

In this study, certain organizational context, a situation and perceptions of the participants is taken as the point of the departure: leadership is explored in one small, entrepreneurial enterprise through the leadership conceptions of the company managers by using a phenomenographic framework. Phenomenography is a study of conceptions, which aims to
describe things as they appear to people (Marton & Booth 1997, 111.) In leadership studies phenomenographic framework provides a novel perspective into current research.

Former research on leadership in small firms has mainly explored the characteristics and behaviour of CEOs, owner-managers or entrepreneurs - emphasized also in the field of small firm research and entrepreneurship. Furthermore, there has been overreliance upon the owner-managers as the only sources of information concerning small firms (cf. Ainsworth & Cox 2003, 1480). That is why this study gives voice not only to the owner-manager but also to other organizational members whose role and agency have been neglected in the former studies of leadership and organizational life in small enterprises.

Subjects and methods
In this study the phenomenographic framework was utilized as a constructivist-interpretative research approach to leadership that seeks to gain understanding of the world of lived experience from the point of view of those who live it. The data was generated during a one-year development project that aimed to improve managerial and leadership practices in the company in order to enhance the functioning of the company and the well-being of the managers. The data consisted of 15 interviews of the eight company managers, a life-story of the company by the owner-CEO and 6 interviews of the CEO, and the company documents. The managers' interviews functioned as the primary data that was analysed using a phenomenographic-contextual analysis.

At the time the managers took part in this study five of them were district managers or heads of subsidiaries. They had each one to ten subordinates. Three of them were located in subsidiaries abroad. The rest three managers had no subordinates. Seven of the eight managers had graduated from university, and one from a vocational high school. The ages of the managers varied between 24 and 60. All except one were male. The median of the managers' tenures in the company was 1, 5 years.

Results
Opposite to the findings of Alvesson and Svenningsson (2003ab) and Svenningsson and Larsson (2006) in larger knowledge intensive companies, where all the managers were
actively encouraged to identify as (visionary, strategic) leaders, in this small company no such strong emphasis on leadership prevailed.

The CEO did not bring leadership forth as something important in relation to the Company or his personnel, nor did he identify as a leader. Mostly he encouraged his managers to take the challenge of entrepreneurship - not leadership. Identification as a leader was not popular among the managers either; this kind of identity construction was rejected by most of them.

In the managers' reflections on leadership the most recent views and leadership 'fads' were seldom audible; the more traditional ways of conceiving leadership dominated. The managers commonly addressed leadership in terms of the problems they experienced in their work and life in the small firm. At the time the managers were interviewed the small firm was struggling with severe difficulties; it was enduring a crisis. Under such conditions and in the context of the development project with its practical aim to improve leadership practices and the functioning of the Company, it may have been natural to focus on issues in need of improvement, which - in the language of phenomenography - were in their focal awareness.

The managers addressed leadership most often in terms of what would be good leadership and how they perceived the leadership of the CEO. The CEO's personal characteristics and skills compared to those required from a good leader; his behaviours towards his subordinates compared to those the managers would have preferred and his relationships with the managers and other employees were evaluated. The CEO's commitment and moral obligation to his managers and other employees, how he managed human resources and made decisions, his way of leading the Company in the stage of expansion and crises, and the way in which he exercised his ownership power were reflected in relation to what the managers perceived to be good leadership of the small enterprise.

The problems of the Company were often attributed to the lack of leadership of the CEO. This provides support to the Romance of Leadership notion suggesting that leadership is used as a means to make sense of organizational life, to account for organizational activities and outcomes and to provide order and clarity to the complexities of organizations (Meindl et al 1985, 78-79; Calder 1977, Pfeffer 1977, 104). Also for the managers, 'leadership' provided a
way to make sense about what was happening in their company. The cause for the difficulties in the small enterprise was that the CEO did not possess the qualities of a good leader, nor did he act as one.

For the managers there seemed to be no rationale to speak about leadership without referring to leaders (cf. Biggart & Hamilton 1987, 437). Leaders were those who had a legitimate right to lead others and exercise power (cf. Gabriel 1997; also Janda 1960, 358). In the small enterprise, power based on ownership provided the most fundamental base for the right to exercise leadership.

Leadership in the small enterprise can be understood as a power-based reality construction; the organizational reality that the managers had to adapt to was dictated by the CEO (cf. Smircich & Morgan 1982). The managers did not believe in their possibilities to have any impact on the situation in the Company for example through the ongoing development project and did not avoid saying so. Many of them felt powerless, many of them wanted to leave, and many of them left.

The findings of this study provide support to the conclusions of previous studies that especially the way power is used and shared – decision-making, distribution and delegation of power – is critical in leading a small enterprise. In line with the views of the managers of this study, the problems of the owner-leaders have been suggested to be related to their difficulties to give up control and share power in their organizations (cf. Osborne 1988, Scase & Goffee 1987). This is especially important at the time of expansion, which is claimed to be determined by the extent to which the owner is prepared to delegate her/his supervisory functions and how competent s/he feels her/himself with the management of the firm's personnel (cf. Scase & Goffee 1987; 72, 162-163).

The managers craved for an ideal leader-subordinate relationship based on trust and mutual obligation but their difficulties to influence on the CEO's decisions and participate in decision-making of any fundamental issues reminded them about the relationship between the CEO as an employer and themselves as employees (cf. Ram 1999, also Marlow & Patton 2002). This may be the situation also in other owner-run businesses, where the proprietor views her/himself as an entrepreneur, not a leader, finds it difficult to trust people s/he does not know well, and feels her/himself incompetent in leading and managing people.
This study conforms to the view that leadership in organizations is based on legitimating principles and the dominant structures of authority. Even though they constrain they do not determine the actions of leaders; for leaders there are possibilities for both authoritative and leadership actions (Biggart & Hamilton 1987; 430, 435-439). In this case the CEO was perceived as an authority and a legitimate leader but not such a good leader that the managers would have wanted; his actions were not perceived as leadership actions.

Taken the view that 'leadership' is important in organizations, being perceived as a leader may have important practical implications. If individuals are categorized as leaders, their social power would increase; they may be "causally important in producing good outcomes" (Cronshaw & Lord 1987, 104). This would also affect the quality of leader-subordinate relations. Consequently, being perceived as a non-leader - but still holding a formal position of authority - may have negative consequences for the organization and the relationships in it. (Lord et al 1986, 408.)

Organizational members need leaders to whom they can project their fears and wishes. This need derives from the desire to believe in the importance and effectiveness of individual action. The desire is based on the need to have control over things or to have a feeling of control. (Czarniawska-Joerges & Wolff 1991, Gabriel 1997, Gemmil & Oakley 1992, Pfeffer 1997.) The need for leadership has been suggested to derive from the feelings of insecurity and learned helplessness (Gemmil & Oakley 1992).

In the small enterprise, (good) leadership was expected and needed but the one holding the most salient power position did not answer to the expectations directed at him. The CEO emphasized his entrepreneurship and downplayed his leadership. Furthermore, it seems that in the same way as entrepreneurs hold stereotypical images of themselves; also other people may hold such images and categorize entrepreneurs as non-leaders.

The small enterprise's lack of formal structures and procedures was interpreted as the CEO's lack of leadership qualities and skills and to be due to his prejudices; he did not understand that they were needed. The managers wanted the Company affairs to be managed; they
wanted strategies, planned activities, role descriptions, rules and formal procedures according which they could operate; they wanted more bureaucracy.

Hierarchical structures, rules and formal procedures and other bureaucratic systems are often seen as control mechanisms which make the leaders detached from the employees and discipline employees to their subordinated positions (Collinson 2005). But why would those who felt themselves disempowered want to have more discipline?

For the managers rules and formal procedures provided a means to discipline not only them but also the CEO. They were needed to protect the managers - and the whole company as many of the managers thought - from the CEO's impulsive decisions and actions that were not always seen as sensitive to the needs and rights of the employees and that run risks over the future of the Company on which the continuity of the managers' work was dependent (cf. Keeley 2004, 161).

At the same time the managers craved for ‘good leadership’: a heroic leader who would be considerate and confident, righteous and strong; who would care for and be committed to his subordinates; who would manage the Company activities and operations, personnel, structure and change according to the changing situations and who would share his power to enable also the others to contribute to the organization.

**Conclusions**

The need for formal procedures and a heroic leader to provide structure and order, feeling of belongingness and safety may also be the situation in other small owner-run businesses. Particularly so, when they grow and when the employees do not have other employment alternatives making them vulnerable and dependant on the owner-manager who wants to remain in control of everything and sees himself more as an entrepreneur than a leader.

When a small firm evolves and employs people, they hold expectations concerning leadership that they direct at the owner-manager of the firm. How these expectations are met by the
organizational leader, may be of significance to the success of the company and the well-being of its members.

This requires that the proprietors become more conscious about the prerequisites of personnel management and personal leadership (cf. Sandberg 2001b). Instead of refusing to be leaders - as the CEO of the small firm in this study did - they should take leadership seriously and understand it to be a part of running the business. This does not mean that they should stick to the myth of a heroic leader. On the contrary, it would probably increase the power differentials in the small firm and support the attribution of difficulties to the one at the top.

Proprietors should enable their personnel to voice their concerns about the company matters, take initiative and participate in solving the problems experienced in small companies instead of retaining power to their own hands only. In growing firms, the need for jointly agreed practices and processes to provide structure and order to the activities of the organization is commonly seen as a prerequisite of successful growth. As this study suggests, they may also support feelings of safety and predictability to the members of the organization; they discipline both leaders and the led.

Moreover, they can offer possibilities for participation. Instead of relying on 'mutual adjustment' as in a small firm naturally occurring during the work, arenas for discussions are needed. They may help in diminishing communication barriers common in organizations with wide power differentials that are likely to lead to conflicting perceptions and expectations between employees and organizational leaders (cf. Wolfe Morrison & Robinson 2004).

References


WS7c-2 Abstract:

‘Creating Culture in Small Enterprise:  What is healthy?  How do we get there?  How do we stay there?’
by Patricia G. Greene, Ph.D., MBA.  F.W. Olin Distinguished Chair in Entrepreneurship, Babson College, Massachusetts, USA.
Candida G. Brush, Ph.D. Paul T. Babson Chair in Entrepreneurship, Babson College, Massachusetts, USA.

By the time most enterprise founders start thinking about ensuring a healthy culture in their business, it is usually too late.  The culture has already emerged and is not always the most conducive to the health of the founder and enterprise employees, but not even conducive to the health of the enterprise itself. This culture of the enterprise emerges from the mind, values, and practices of the founder(s) while the business is being created, a time when the founder generally places more priority on the creation of value than the creation of culture.

For this article the authors begin from the work of Schein (1992) and Cameron & Quinn (1999) to advance the understanding of organizational culture in the context of the emerging small enterprise.  The article begins with the theoretical model of the “Competing Values Framework” (Cameron & Quinn, 1999) considering the core values, assumptions, interpretations, and approaches that combine to define the enterprise.  The article further reviews existing organizational culture frameworks combined with a consideration of value creation and measures of success when categorized as achievement, happiness, significant, and the creation of legacy (Nash & Stevenson, 2004).

Initial questions to be explored include aspects of organizational growth, employee relationships, and community engagement.  Additional questions raised by the analyses of the frameworks will be further explored in a series of interviews with founders of small enterprises.  The conclusions of the paper will be used in the development of entrepreneurial education and training materials related to the development and sustainability of healthy organizational cultures.
Entrepreneurial Influence on Culture in Emerging Organizations??

Greene, P. G. and Brush, C.G.

Abstract
By the time most enterprise founders start thinking about ensuring a healthy culture in their business, it is usually too late. The culture has already emerged and is not always the most conducive to the health of the founder and enterprise employees, but not even conducive to the health of the enterprise itself. This culture of the enterprise emerges from the mind, values, and practices of the founder(s) while the business is being created, a time when the founder generally places more priority on the creation of value than the creation of culture. For this article the authors begin from the work of Schein (1992) and Cameron & Quinn (1999) to advance the understanding of organizational culture in the context of the emerging small enterprise. The article begins with the theoretical model of the “Competing Values Framework” (Cameron & Quinn, 1999) considering the core values, assumptions, interpretations, and approaches that combine to define the enterprise. The article further reviews existing organizational culture frameworks combined with a consideration of value creation and measures of success when categorized as achievement, happiness, significant, and the creation of legacy (Nash & Stevenson, 2004). Initial questions to be explored include aspects of organizational growth, employee relationships, and community engagement. Additional questions raised by the analyses of the frameworks will be further explored in a series of interviews with founders of small enterprises. The conclusions of the paper will be used in the development of entrepreneurial education and training materials related to the development and sustainability of healthy organizational cultures.

Introduction:
The culture of a business is part of its organizational capital, a resource in its own right (Barney, 1986, 1991). For a new venture, organizational culture is emergent, created thought the interaction of other resources. Organizational cultures are complex, systematic resources “that contribute to the development of competitive advantage, distinguishing firms and enabling some to excel within an industry” (Brush, Greene, Hart, 2001). This approach raises two questions, one addressed only minimally in the field of entrepreneurship research
and the other entirely neglected. First, how are cultures created in a new organization? While there is significant work on assessing and changing cultures, the culture creation question has received much less attention from researchers. Indeed, by the time most enterprise founders start thinking about ensuring a distinctive culture in their business, it is usually too late. The culture has already emerged and the rudiments of norms and assumptions are guiding the behaviors and actions of the firm. A lack of attention to culture early in organizational founding may not be healthy for the founder, employees or the future of the business itself. This culture of the enterprise emerges from the mind, values, and practices of the founder(s) while the business is being created, a time when the founder generally places more priority on the creation of value than the creation of culture.

The second question pertains to the relationship between the culture of a new business and the manner in which people want to live their lives. This applies both to those who create the businesses and those who wish to work in them. Entrepreneurship education and training, as well as entrepreneurship related policies, are most often evaluated by the expectation of the creation of an economic return. In particular in these discussions, the approach to launching an organization is about the outcome, the creation of revenues, jobs, or even social good. Yet the findings that people are most often motivated to start businesses by their desire to be independent, to do things their way, are quite robust. Despite this, we rarely explicitly consider the start of a new business as a statement on who someone wants to live their life. And it is even rarer that we teach and train about how to create an organizational culture that supports a life style statement.

Organizational Culture

The recognition of the importance of organizational culture and a more intentional academic approach emerged in the 1970s and is therefore a newer academic topic (Smircich, 1983; Schein, 1988). Shein considers foundations of organizational culture to include climate, group norms, roles, values, norms (Schein, 1983; Katz & Kohn 1978). He further grounds the systematic aspects of organizational culture through an approach of “pattern of norms and attitudes that cut across a whole social unit” as described in a host of classic earlier works in organizational theory (Jacques, 1951; Likert, 1961, 1967; McGregor, 1960; Katz & Kahn, 1966). Smircich (1983) goes further to include aspects of symbolic activities (Peters, 1978; Pfeffer, 1981; Smircich & Morgan, 1982), symbolism, legends, stories, myths, and
ceremonies (for the literature review see Smircich, 1983; Dandridge, Mittroff, & Joyce, 1980.).

Both Schein and Smircich make a particular contribution by examining existing approaches (at the time) to organizational culture. Schein summarizes “conceptual origins or research streams” (thereby also providing a consideration of the ways of studying organizational culture) as including 1) social psychology and survey research, 2) empirical descriptions, 3) ethnographic, 4) historical, and 5) clinical description. Smircich’s approach is rooted in a more broad array of literatures and synthesizes disciplinary concepts of “culture” and “organization” to suggest “themes” of organizational culture approaches, to include 1) Cross-cultural or comparative management, 2) corporate culture, 3) organizational cognition, 4) organizational symbolism, and 5) unconscious processes and organization (Smircich, 1983). While there are many ways in which these lists overlap, one of the primary differences lies in Smircich’s final theme in which she draws from the structuralist approach of Levi-Strauss to posit that “Culture is a projection of mind’s universal unconscious infrastructure” (p. 342). For Schein, culture has a more instrumental element as seen in his definition of culture as “1) A pattern of basic assumptions, 2, invented, discovered, or developed by a given group, 3) as it learns to cope with its problems of external adaption and internal integration, 4) that has worked well enough to be considered valid and, therefore, 5) is to be taught to new members as the 6) correct way to perceive, think, and feel in relation to those problems” (p. 7). This approach suggests an intentionality that seems in contrast to an “unconscious process” (Levi-Strauss, ).

Considering Organizational Culture

The Competing Values Framework (CVF) has a history of extensive application across many types of organizational settings and questions (Cameron & Quinn, 1999; Buenger, Daft, Conlon, & Austin, J.,1996; Goodman, Zammuto, & Gifford, B. D., 2001; Hooijberg & Petrock,1993). Other researchers have explored the underlying assumptions, dimensions, concepts, etc.
Table 1. Summary of Schein and Competing Values Framework.

<table>
<thead>
<tr>
<th>Key Dimensions</th>
<th>Attributes</th>
<th>Key Dimensions</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization’s Relationship to its Environment</td>
<td>Dominate, submissive, harmonizing, searching for a niche?</td>
<td>Dominant Organizational Characteristics</td>
<td>a) A very personal place like a family</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Entrepreneurial and risk taking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Competitive and achievement oriented</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d) Controlled and structured</td>
</tr>
<tr>
<td>Nature of Human Activity</td>
<td>Dominant pro-active, harmonizing, passive fatalistic</td>
<td>Leadership Style</td>
<td>a) Mentoring, facilitating, or nurturing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Entrepreneurial, innovative, or risk taking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) No-nonsense, aggressive, results oriented</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d) Coordinating, organizing, efficiency oriented</td>
</tr>
<tr>
<td>Nature of Reality and Truth</td>
<td>Definition of truth and determination of truth? (pragmatic test or reliance on wisdom)</td>
<td>Management of Employees</td>
<td>a) Teamwork, consensus, and participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Individual risk taking, innovation, freedom, and uniqueness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Competitiveness and achievement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d) Security, conformity, predictability</td>
</tr>
<tr>
<td>Nature of Time</td>
<td>Basic orientation and most relevant time units</td>
<td>Organizational Glue</td>
<td>a) Loyalty and mutual trust</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Commitment to innovation and development</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Emphasis on achievement and goal accomplishment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d) Formal rules and policies</td>
</tr>
<tr>
<td>Nature of Human Nature</td>
<td>Humans as basically good, neutral or evil? Human nature as perfectible or fixed?</td>
<td>Strategic Emphasis</td>
<td>a) Human development, high trust, openness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>b) Acquisition of resources and creating new challenges</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>c) Competitive actions and winning</td>
</tr>
</tbody>
</table>
d) Permanence and stability

Nature of Human Relationships
- Relating to each other, distribution of power, role of affection?
- Competition v. cooperation?
- Individualism v. groupism? Authority systems as autocratic/paternalistic v. collegial/participative?

Criteria for Success
- a) Development of, teamwork, and concern for people
- b) Having the most unique and newest products and services
- c) Winning in the marketplace and outpacing the competition
- d) Dependable, efficient, and low cost

Homogeneity vs. Diversity
- Diverse v. homogeneity; innovation v. conformity

Source: Schein, add best CVF cite

For the purposes of this paper our interest builds upon these dimensions and their attributes to focus upon how the culture was created in the first place.

Organizational Culture and Entrepreneurship

Pettigrew provides us with a strong link between organizational culture and new ventures by exploring organizational culture from the perspective of “…how purpose, commitment, and order are generated in an organization both through the feelings and actions of its founder and through the amalgam of beliefs, ideology, language, ritual and myth…” (Pettigrew, 1979, p. 572). Pettigrew further helps us by stating “the essential problem of entrepreneurship is the translation of individual drive into collective purpose and commitment” (Pettigrew, 1979, p 573).

Barbara Bird’s early work on entrepreneurial behavior discusses that entrepreneurs create their organizations intentionally and the values added by the organization tend to be consciously chosen (Bird, 1989). She argues that the selection of particular individuals reinforces certain principles, assumptions, values and rules, there by shaping the organization. Because founders start with their own “theories” about business, they make choices that reflect these. Day to day activities, relationships, and work norms are reflected in the choices made by founders. This is similar to work by Boeker that considers the “imprinting” of the founder on the early organization. But, the founders impact on culture may be conscious or unconscious.

More recent empirical literature on culture in new firms is small, but growing, and includes interests such as the relationship between funding sources and culture (Hamilton, 2001), the
role of cognition in the creation of new ventures (Forbes, 1999), and human resource practices in new ventures (Cardon & Stevens, 2004).

Our major question is whether culture is intentionally designed or whether it is imprinted unintentionally. We propose a continuum of the manner in which founders (and potentially founding teams) deal with the development of culture. We use a 2X2 diagram to unpack a set of options. The diagram is based upon the dimensions of Intention and Attention. For intention, we explore the extent to which the creation of culture is an act of entrepreneurial design, one planned to enhance the nature of the business in pursuit of its mission. For attention, we look at the entrepreneur’s commitment to designing, launching, and potentially imprinting a company culture. Each of these dimensions are then used to consider the impact on both process and outcome.

Conclusion.
This paper is a work in progress and combines a thorough literature review with a forthcoming set of interviews. The objective is to summarize what we know to date and what questions remain about how culture is created in new companies. Future research includes an extension of the questions to include the impact of factors such as the gender of the owner and institutional influences such as external cultural and economic environment. The desired outcome is to provide a foundation of knowledge for the development of entrepreneurship education materials leading to the sustainability of healthy organizational cultures.

References


Schein, E.H. Organizational Culture. WP# 2088-88.

WS7c-3 Abstract:

‘Family and enterprise. Family Business or Business Family’
by E. Więcek-Janka, Poznan University of Technology, Institute of Management Engineering Poznań, Poland

Problem: Influence family on management in micro-enterprises

Methods: The study provides the methodology of family impact on the family microenterprises activities. A Q. Fleming test was adapted and expanded. 174 companies were examined. In the study 5 hypotheses were stated and verified with a use of $\chi^2$ test, and the V-Cramer factor. The results were formulated.

Results: An analysis of research material backed up by scientific literature of a subject leads to the following conclusions:
- Nepotism, favoring family members in the process of employing, promoting and setting wages has a destructive character and demoralizes workers;
- Mixing the roles may obstruct effective management;
- Certainty of employment and feeling of security among the family members may have positive and negative influence;
- Conflicts resulting from the rules of distribution of work and duties unskillful conflicts resolution leads to company’s disorganization.

Conclusions: Author proposed a program of liquidation of threats in relation between family and business in microenterprises

<table>
<thead>
<tr>
<th>Program</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defining procedures regarding career streams.</td>
<td>Seeing the possibility of advancement.</td>
</tr>
<tr>
<td>Defining the scope of responsibilities assigned to every position.</td>
<td>Clear and accepted rules.</td>
</tr>
<tr>
<td>to catalogue the standards defined for family members</td>
<td>Feeling that norms related to work quality are being realized.</td>
</tr>
<tr>
<td>To catalogue the standards defined for other workers.</td>
<td>Feeling of shared responsibility for realized company’s goals. Participation in its success.</td>
</tr>
<tr>
<td>Obey the set rules using positive and negative motivation.</td>
<td>Feeling of justice among workers.</td>
</tr>
<tr>
<td>Separate professional and family matters.</td>
<td>Reduction of results of conflicts.</td>
</tr>
<tr>
<td>Seek innovations in every aspect of company's activity.</td>
<td>Increase of competitiveness on the market leading to company’s development.</td>
</tr>
<tr>
<td>Create “positive social climate” for successors.</td>
<td>Creating the need of succession by future generations.</td>
</tr>
</tbody>
</table>
FAMILY AND MICROENTERPRISE
(BUSINESS FAMILY R FAMILY BUSINESS – RESULTS OF RESEARCH)

Ewa Więcek-Janka, PhD, Institute of Management Engineering, Poznań University of Technology, Poznań, Poland, e-mail: ewa-wiecek-janka@wp.pl

Abstract
The study provides the methodology of family impact on the family microenterprises activities. There have adapted and expanded a Q. Fleming test. It was examined 174 companies. In the study has been taken 5 hypotheses and verified of $\chi^2$ test, and the V-Cramer factor. The results were used to formulate recommendations

1. Family matters and microenterprise matters Advantages and disadvantages.
In Poland there are approximately 2,5 million microenterprises hiring 3,5 million workers which is around 97% of small and medium enterprises (Spektrum 3/2007). Every year about 200 thousand microenterprises are created and the same amount closes down. These are mainly family enterprises offering employment to themselves and others in family. In their operation they face many barriers, not only institutional, such as: complicated opening and accounting procedures, low availability of investment loans, unfavorable conditions of cooperation with other companies, but also problems connected with management and family relationships. An important condition of company’s development is it's character connected with a company's owner. A classification of micro-entrepreneurs in regard to roles realized in a company is presented in table 1.
Table 1. Classification of microentrepreneurs

<table>
<thead>
<tr>
<th>Role</th>
<th>Perspective of development</th>
<th>OWNER’S CHARACTERISTIC</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>craftsman</td>
<td>operative</td>
<td>Focuses on compensation for his physical labor</td>
<td>30%</td>
</tr>
<tr>
<td>Classic entrepreneur</td>
<td>tactical</td>
<td>Focuses on maximizing profits</td>
<td>50%</td>
</tr>
<tr>
<td>manager</td>
<td>strategic</td>
<td>Aiming at improvement of company's management in longer perspective</td>
<td>15%</td>
</tr>
<tr>
<td>expert</td>
<td>Completing a vision</td>
<td>Runs own business in a free profession</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Elaboration based on: Sułkowski 2006.

A development of family microenterprise is connected with providing family members with adequate career paths. Microenterprises which have vision and realize a defined strategy take into consideration in one way or the other, the family members’ career paths. Optimal management, including recruitment, motivating, administration and workers development should aim at reaching balance between company’s and family’s goals. Such balance guarantees constant development and market success. However, in family business reality this balance is often dented (Bilewicz-Bandurska, Bednarek, 2005). Fulfilling family needs and family bonds take over the necessary professionalism, adequate workers' qualifications, the amount of time devoted to the company, etc. This specific balance keeping has both positive and negative consequences (Drzewiecki M., Wojtas H 2006; Kiedziuch M. 2006; Sułkowski Ł 2006; Więcek-Janka 2007). Table 2 presents a list of advantages and disadvantages of family microenterprises, elaborated based on literature research and interviews with microenterprises owners.
Table 2. Advantages and disadvantages of family microenterprises.

<table>
<thead>
<tr>
<th>Advantages of family microenterprises.</th>
<th>Disadvantages of family microenterprises.</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ Cooperation with family gives internal comfort and a feeling of being surrounded by trustworthy people</td>
<td>▪ Personnel movements;</td>
</tr>
<tr>
<td>▪ Family members are aware of working for themselves</td>
<td>▪ Criteria of recruitment and promotion are unprofessional, not based on competencies and skills;</td>
</tr>
<tr>
<td>▪ Using a tacit knowledge, unavailable for &quot;strangers&quot; (personal know-how)</td>
<td>▪ Inefficient workers are tolerated;</td>
</tr>
<tr>
<td>▪ No problems with motivation;</td>
<td>▪ Problems are solved with a care for family and loss of professionalism.</td>
</tr>
<tr>
<td>▪ Decisions are made very fast;</td>
<td>▪ Workers assessment is very strict;</td>
</tr>
<tr>
<td>▪ Professional relationships with superiors are informal</td>
<td>▪ Connecting professional and private live may lead to serious crisis.</td>
</tr>
<tr>
<td>▪ Often democratic character of management</td>
<td>▪ Family conflicts may be transferred to company with loss to its professionalism;</td>
</tr>
<tr>
<td>▪ guaranteed succession.</td>
<td>▪ Conflict in a company may influence family relationships;</td>
</tr>
</tbody>
</table>

Source: Personal elaboration

Advantages of family microenterprises skillfully correlated with environment abilities create an opportunity for development (Lipiec 2006). Disadvantages on the other hand, in unfavorable conditions transform into serious threats leading towards company’s bankruptcy (only 30% of family enterprises are managed by family’s second generation, and only 3% by third generation). Family microenterprises have specific life cycle on the market connected with family life cycle. A major difference compared to other market organisms is succession, which means taking the company over by next generations (Hugon 2008). In multigenerational cycle (compare fig. 1 similar structure of stages may be outlined, however every “first” stage is realized based on knowledge and experience of company’s previous managements (generations). First, second and further generations fulfill the ideas of family enterprise development in the following stages:

▪ Entrepreneurship stage is a period when a founder (owner) is supported by other family members. His task is to create and implement innovative ideas of business realization.
- Cooperation stage, in which certain rules of cooperation are introduced in centralized manner.
- Control crisis is a stage when it becomes impossible to centrally coordinate many decisions which (often) leads to conflicts and company's disintegration.
- Formalization stage includes processes dominated by formalized communication embedded by procedures. Such actions are to facilitate control over enterprise.
- Authority crisis and succession stage. This stage includes work efficiency decline, leading to passing the authority to next generation.

Fig. 1. An example of family microenterprise life cycle (founded in 1976).

Source: Personal elaboration

After last stage of first generation cycle comes next stage of entrepreneurship realized by second generation of owners (Więcek-Janka 2008; Więcek-Janka2007; Hugon 2008). An example of family microenterprise life cycle is illustrated on figure 1.

2. Research methodology

Author's goal is to perform adaptation (and verify usefulness) of Q Fleming test to measure the influence of family on enterprise, to Polish conditions. Original test includes 35 questions put on scale of stabilization and destabilization of family business functioning. The author (by means of expert consultations) enriched the inventory with four questions regarding the style of management, three questions regarding the structure of employment, and one question about level of succession and using owner’s competencies. Verification of
usefulness of new-prepared tool (FBF - Family Business Family\(^1\)) was done according to research procedure (compare the content of table 2 and 3).

Table 2. Elements of research methodology

<table>
<thead>
<tr>
<th>Research problem</th>
<th>Identification of indicators influencing the development of family microenterprise.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place</td>
<td>Wielkopolska</td>
</tr>
<tr>
<td>Time</td>
<td>November - December 2008</td>
</tr>
<tr>
<td>Sample selection</td>
<td>Selection of typical units</td>
</tr>
<tr>
<td>sample size</td>
<td>174 family microenterprises.</td>
</tr>
<tr>
<td>Research method</td>
<td>FBF questionnaire</td>
</tr>
<tr>
<td>assumption</td>
<td>Development will be measure by company’s age and employment dynamics.</td>
</tr>
</tbody>
</table>

Source: Personal elaboration

Finding solution to research problem connected with identification of indicators influencing the development of family microenterprises imposed the necessity to find relationships between defined variables. Five research hypotheses were set. They are presented in table 3.

\(^1\) Personal version of Ewa Więcek-Janka
Table 3. Research hypotheses

<table>
<thead>
<tr>
<th>No</th>
<th>Content of correlation</th>
<th>Hypothesis 0</th>
<th>Alternative hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>FBF test result and eager style</td>
<td>FBF test result does not depend on eager style of management</td>
<td>FBF test result depends on eager style of management</td>
</tr>
<tr>
<td>2</td>
<td>FBF test result and friendly style</td>
<td>FBF test result does not depend on friendly style of management</td>
<td>FBF test result depends on friendly style of management</td>
</tr>
<tr>
<td>3</td>
<td>FBF test results and owner’s competencies</td>
<td>FBF test results does not depend on owner’s competencies</td>
<td>FBF test results depends on owner’s competencies</td>
</tr>
<tr>
<td>4</td>
<td>FBF test results and company’s age</td>
<td>FBF test results does not depend on company's age</td>
<td>FBF test results depends on company's age</td>
</tr>
<tr>
<td>5</td>
<td>Company’s age and owner’s competencies</td>
<td>Company’s age does not depend on owner’s competencies</td>
<td>Company’s age depends on owner’s competencies</td>
</tr>
</tbody>
</table>

The result of FBF test is treated by the author as a sum of points gained for answers stabilizing company’s development (between 0 and 35 points, where 0 means no stabilization actions, and 35 is a developing company). Management style (Blake’s) should be interpreted as a combination of owner's actions aimed toward fulfillment of company's and workers' goals and choice of one of the styles: isolated, friendly, eager, complex (compare fig. 5 – distribution of management styles in a sample). Owner’s competencies are selected from a list: technical, social and conceptual competencies (compare fig. 4 – distribution of competencies in a research sample). To measure the relationship between the variables a V-Cramer test was chosen because of its universal character. Testing was done based on equation 1.

$$V = \sqrt{\frac{\chi^2}{n(k-1)}};$$
3. Conclusions

Specificity of family microenterprises creates a need of analyzing the research sample from a perspective of company's age and number of employees. This characteristic is presented on figure 2 and 3.

Fig. 2. Structure of employment in research sample (number of employees/number of microenterprises)

![Bar chart showing employment structure](image)

Source: Personal elaboration

Fig. 3. Age structure in a research sample (companies’ founding year/number of microenterprises)

![Bar chart showing age structure](image)

Source: Personal elaboration

In selected sample enterprises employ from 1 to 10 workers. Majority (128) companies hire from 3 to 5 workers which constitutes 72.5% of a sample. Over half of measured family microenterprises (52.3%) were created between 1989 and 1999. Sample also includes enterprises with much longer experience. 20% of them were founded before 1988 (the oldest, founded in 1908 has recently celebrated its "100th anniversary").

The use of V-Cramer coefficient allowed to define the strength of relation between the selected variable, although in first three hypotheses there was no reason to reject the hypotheses 0 in favor of alternative. According to the author this is a result of too diversified (types of businesses) sample. Research allowed to unambiguously prove the relation between family enterprise's age and owners competencies and between the results of FBF test and company's age. The results of calculations and the values of V-Cramer coefficient are presented in table 4.
Table 4. The results of statistical analysis and strength of relation between the variables

<table>
<thead>
<tr>
<th>No</th>
<th>Statistics</th>
<th>Strength of relation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Statistics Question 36(2) x Class Stage 1(3) (Mikro_Stat)</td>
<td>V-Cramer 0.74</td>
</tr>
<tr>
<td></td>
<td>Chi square df p</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.40 df=2 p=.09994</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Statistics Question 37(2) x Class</td>
<td>V-Cramer 0.77</td>
</tr>
<tr>
<td></td>
<td>Chi square df p</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.561994 df=2 p=.16848</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Statistics Question 44(3) x Class Stage 1(3) (Mikro_Stat)</td>
<td>V-Cramer 0.64</td>
</tr>
<tr>
<td></td>
<td>Chi square df p</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.487075 df=4 p=.64695</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Statistics Class year (5) x Class Stage 1(3) (Mikro_Stat)</td>
<td>V-Cramer 0.83</td>
</tr>
<tr>
<td></td>
<td>Chi square df p</td>
<td></td>
</tr>
<tr>
<td></td>
<td>20.71539 df=8 p=.00795</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Statistics Question 44(3) x Class year (5) (Mikro_Stat)</td>
<td>V-Cramer 0.65</td>
</tr>
<tr>
<td></td>
<td>Chi square df p</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12.27176 df=8 p=.13950</td>
<td></td>
</tr>
</tbody>
</table>

Source: Personal elaboration with a use of STATISTICA 8.0 program
Strength of correlation between activities stabilizing company’s development and its age is very high (0.83) – which may be interpreted as an ability of family enterprises to learn, to use the knowledge of family members and its efficient use for company's development (explicit and tacit knowledge does not “leave” with a worker – it stays in a “family”).

Fig. 4. 4 – distribution of owners’ competencies in a research sample.

Fig. 5. Distribution of management styles in a research samples.

Source: Personal elaboration

For the microenterprise to develop (develop the market) it has to introduce the actions stabilizing this development. The author divided those actions into four major groups considering the influence of a family:

1. Clear dividing of goals into: family goals and company's goals;
2. Fulfillment of company’s vision and strategy;
3. Openness to innovations;
4. Responsible and just motivating.

4. Summary
Managing the family microenterprise in strategic perspective requires not only managerial but also negotiation, training and psychological competencies and skills. Analysis of research materials supported by literature from that area has lead the author to the following conclusions:
- nepotism, favoring family members in recruitment, compensating and promoting found (in research) has demotivating and demoralizing influence on workers;
• Mixing the roles played in company and family may strenuously obstruct effective management;
• Certainty of employment and a feeling of security between family members hired in an enterprise may have positive influence (devoting private time to the good of family and future generations) but also negative (certainty that no one can drive the family member out of the company);
• Succession may be a source of stabilization and development (compare family enterprise life cycle on fig. 1) but also destabilization, and even fall of the enterprise (if one person does not emerge, capable of taking the responsibility for the company's development);
• Conflicts between workers from the family and the other resulting from the rules of distribution of work and duties;
• Conflict between company’s and family’s interests results in internal partitions and conflicts between workers;
• Unskillful conflict management (usually in favor of a family) lead to company’s disorganization.

Functioning on a market in changing conditions, overcoming obstacles in fulfilling the goals touches every enterprise (Lipiec 2006). A difference between functioning of family and non-family enterprises lies in consequences for family members in case of company's failure. In family enterprises, providing for family members in several generation, a synergy effect of actions, efforts, sacrifices is used, resulting in greater engagement and loyalty to the company. Not only however can such behavior be optimally used. Often the best intentions of founders and successors of such companies striving to assure quick development do not yield expected results and even lead to company's bankruptcy. That is why using the experience of previous generations (owners), skillful management of tacit and explicit knowledge, efficient organization of work, motivating workers from and outside the family, gives an opportunity to create a substantial competitive advantage. An example of a program blending the company’s and family’s interests is presented in table 5. The author of this article in her future research will focus on searching for "development indicators" in realized management functions in family microenterprise.
Table 5. A suggested program of eliminating the threats on the contact point between family and company in microenterprises

<table>
<thead>
<tr>
<th>Program</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting procedures regarding the promotion paths;</td>
<td>Feeling of development ability</td>
</tr>
<tr>
<td>Defining the scope of responsibility for every work post;</td>
<td>Clear and accepted rules of cooperation between family members and non-family workers</td>
</tr>
<tr>
<td>Catalogue existing standards for family members (sometimes smaller, sometimes bigger);</td>
<td>A feeling of fulfilling the normative related to the quality of work and responsibility for its results;</td>
</tr>
<tr>
<td>Catalogue existing standards for the rest of workers;</td>
<td>A feeling of co-responsibility for the fulfillment of company’s goals and participation in its' success;</td>
</tr>
<tr>
<td>Obey the rules using positive and negative motivation;</td>
<td>Feeling of justice between workers and family according to the rule “get what you paid for”</td>
</tr>
<tr>
<td>separate family and business matters;</td>
<td>Decrease of the results of conflicts on the contact point between family and company interests;</td>
</tr>
<tr>
<td>Seek for innovations in every aspect of company’s activity;</td>
<td>Increasing the competitiveness on the market leading to company’s development</td>
</tr>
<tr>
<td>Create a „good social climate” for the successors.</td>
<td>Creating a need of taking over and development of the company by next generations.</td>
</tr>
</tbody>
</table>

Source: Personal elaboration

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• http://www.microenterprises.net/literature.html
Abstract:

‘Does Size Matter? Small employers’ recruitment and retention practices: SMEs as “inclusive workplaces”’?
by Steinar Widding, Researcher, Work Research Institute, Oslo, Norway,

In Europe, most enterprises have less than 20 employees. Small enterprises have a large potential for job creation. However, the potential of small enterprises as workplaces for people with impairments have received relative little attention in the research literature.

This paper builds on data from 500 enterprises on enabling and disabling factors within three sectors (ICT, construction and health) in Norway 2006-2008. A special qualitative study of a smaller sample of Norwegian small enterprises was done as a part of the larger study.

The paper discusses the characteristics of small workplaces, their recruitment practises and asks if and how small employers’ recruitment practices influence upon patterns of employment and retention of persons with impairments in the labour market. What are the small enterprises’ opportunities and restrictions as “inclusive workplaces”?

The study found that while future recruitment of job seekers people with impairments was looked upon as unnecessary risk taking, it turned out that many of the small employers already had employees with impairments, but they were seldom thought of as that.

Furthermore, the study revealed that financial incentives for recruitment and retention of workers with impairments did not necessarily balance out employers’ sceptic views of recruiting persons with impairments. Incentives might be more effective if they are combined with measures that permit employers to learn from personal experience with disabled workers.
Papers, presenting author

WS1: ‘CSR: Business ethics and small enterprises’

Session WS1.1
Frank Jan de Graaf
Franz Josef Gellert

Session WS1.2
Julia Roloff
Tina Kallehave
Lise Granerud
Dirk Johan de Jong

WS2: ‘Practitioners: Practical experiences and examples from working with SMEs’

Session WS2.1
Christopher Harling
K. Louhelainen
Luís Renato B. Andrade

Session WS2.2
Peter Anders
Tilde Rye Andersen
Ann Hedlund

Session WS2.3
Susanna Visuri
Kari Ojanen
Gunnar Lagerström
Helle Birk Domino

WS3: ‘Participatory approach improving OSH in SMEs and the informal sector’

Session WS3.1
Toru Itani
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Takeshi Ebara

Session WS3.2
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Suwattana Charumilinda
WS4: 'Supporting small enterprises in implementing OHS management – the role of intermediaries'

Session WS4.1
Seiji Machida
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Stephen Legg
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Session WS4.2
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Andrew Gilbey
Bengt Pontén
Kuck Hyeun Woo
Joanna Janecka

Session WS4.3
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Johann Petit

WS5: 'Assessing and preventing chemical and other risks in small enterprises'

Session WS5.1
Ian Laird

Session WS5.2
Kirsten Olsen
Albert Hollander
M.J. Meeuwsen

WS6: 'Prevention of accidents and promotion of safety in small enterprises'

Session WS6.1
Christophe Martin
Kirsten Jørgensen

Session WS6.2
Fabienne Knudsen
Bernard Dugué
A. Sergio Miguel

WS7a: 'OSH regulation and intervention - internal and external challenges'

Session WS7a.1
Yu-Feng Wong
Session WS7a.2
Sylvie Gravel
Catherine Jordan

WS7b: ‘SME management - the balance of formal and informal approaches’

Session WS7b
Hilbrand Knol
J. G. Rasmussen
Lynette Harris

WS7c: ‘Owner-manager and family in business - SME culture and leadership’

Session WS7c
Helena Palmgren
Patricia G. Greene
Ewa Więcek-Janka
Poster 1:

'Measurement of trust in dentistry, the example of Sweden-Denmark'
by Hanne Berthelsen, DDS, MPH, doctorate student, Department of Oral Public Health, Faculty of Odontology Malmö University, Malmö, Sweden
Jan Hyld Pejtersen, Ph.D., senior researcher, National Research Centre for the Working Environment, Copenhagen, Denmark
Sven Ordell, DDS, MPH, doctorate student & Björn Söderfeldt, Professor, Department of Oral Public Health, Faculty of Odontology Malmö University, Malmö, Sweden

Background and aim: At workplace it is relevant to study trust in the relations among colleagues (horizontal trust) and trust between management and employees (vertical trust). In the Copenhagen Psychosocial Questionnaire (COPSOQ) a measure of these two concepts has been developed, but the validity of the measures in a specific context as dentistry is unknown. The aim of the present study was to apply the measurements of trust from COPSOQ to a population of general dental practitioners from Denmark and Sweden, comparing factor solutions and scoring norms to the original results. Besides dentistry is an example of a human service organization, which implicates that also the patients take a central role in the daily work.

Materials and methods: In 2008, a questionnaire was sent to 1835 general dental practitioners, randomly selected among members of the dental associations in Sweden and Denmark. The response rate was 68% after two reminders. Distribution analyses of two items concerning the importance of colleagues and relationship with patients were performed. Principal Components Analysis was applied to seven items concerning trust, taken directly from the second version of COPSOQ. The analyses were performed for the total sample as well as for subgroups according to gender, country, and employment sector.

Results: Relationships to colleagues as well as patients were considered as very important for the perception of work fulfillment. The analyses resulted in two stable factors, interpreted as “trust” and “hindered information flow”.

Conclusions: The suggested two factors from COPSOQ: vertical and horizontal trust, could not be reproduced in the present study. Consequently, the constructs cannot be regarded as valid for small enterprises as dentistry in Sweden and Denmark. Besides, it is suggested to include measurement of trust in the relationship with patients, when dealing with psychosocial work environment in human service organizations.
Poster 2:

'Using Path Analysis to Identify the Main Predictors of Risk Behaviour in Noise Exposed Workers'
by A. Sérgio Miguel, Ph.D., Invited Full Professor & Pedro Arezes, Ph.D., Associate Professor, University of Minho, Guimaraes, Portugal
(presenter possibly absent)

Noise exposition is very frequent in industrial settings, but in SMES due to economical restraints and lack of technical solutions, workers’ protection relies almost exclusively in the adoption of hearing protectors. However, workers tend to avoid the use of such devices and, accordingly, increase the risk of noise induced hearing loss. Therefore, it is of paramount importance to identify the main reasons for such risky behaviour.

The main goal of this study was to analyse all the variables related with the decision to use hearing protectors based on a statistical technique called Path Analysis. Traditional multivariate regression analysis has been criticised due to the fact that it doesn’t allow the analysis of the relationship between independent variables and doesn’t consider the possibility of “mediator” variables. Path Analysis allows a description of the whole structure of all variables’ associations. In this study, particular risk behaviour was analysed considering three types of independent variables, (1) individual, (2) contextual and (3) percept-cognitive variables, and one dependent variable, the use of hearing protectors. A causal model was constructed and tested through the application of the mentioned technique.

Obtained results show that, when considering individual variables, only Age seems to be a significant predictor of the hearing protectors’ use, although it represents a negative effect. This effect is also significant when this variable is associated with the percept-cognitive variables. Contextual variables also seem to play a significant role, but with an indirect effect. Significant and positive effects were identified in the percept-cognitive variables, which mean that these variables are most likely important mediating variables. Risk perception seems to be the most important predictor and, thus, some important insights can be used to plan and develop efficient strategies for promoting the use of hearing protectors in noisy workplaces.
Poster 3:

‘Occupational Noise Exposure in Jackhammers’ operators in SMEs of the Construction Sector’
by A. Sérgio Miguel, Ph.D., Invited Full Professor, University of Minho, Guimaraes, Portugal
Cristiano Braga, MSc., SMGP Consulting, Porto, Portugal
Nélson Costa, MSc., Invited Lecturer & Pedro Arezes, Ph.D., Associate Professor, University of Minho, Guimaraes, Portugal
(presenter possibly absent)

Due to some specific issues, such as the great mobility between environments and sites, construction workplaces are poorly studied as far as environmental physical agents are concerned. This is more critical if one considers only the SMEs, which are dominant in the Portuguese construction sector. Powered hand tools are widely used by construction workers, especially to accomplish tasks demanding highly repetitive forces. In particular, the use of jackhammers in chipping, breaking or demolition works is an example of a high-risk tool due to, amongst other risk factors, the exposure to high noise levels. The aim of this study was to characterize noise exposure of 62 jackhammers’ operators from SMEs in the construction sector.

In order to achieve a better understanding of this exposure and its implication on workers’ health, several noise measurements have been made. A noise spectral analysis was undertaken in all of the studied workplaces. The adequacy of the used hearing protection was also verified, according the octave band criterion. Obtained results were compared with limit values established by Portuguese legislation, in what concerns noise exposure. Finally, an audiometric evaluation was conducted, which involved a sample of 23 workers with an average age of 40 and 16 years of exposure to noise. In some cases the used hearing protection wasn’t probably adequate for the specific noise environment, what can be evidenced by the verified noise induced hearing losses.

As conclusion, it was possible to verify that SMEs have a limited budget for Health and Safety issues, and most of that budget is mainly allocated to collective measures against occupational accidents, what leads to an underestimation of environmental agents. Despite that, there are some recommendations that can be done for this company’s profile, such as the need to adopt a regular tool maintenance program and a careful selection of hearing protection devices.
Poster 4:

‘Group Health Care System for Workers in Small Enterprises in Korea’
by Jaehoon Roh, MD, PhD, Professor, Institute for Occupational Health, Yonsei University College of Medicine, Seoul, Korea

The purposes of the Group Health Care System (GHCS) for workers are to promote workers’ health and to prevent occupational diseases in small enterprises. Nowadays, manufacture and use of harmful materials are increased year by year. Also, need for good health care in worksite is increased rapidly than before. These facts require introduction of new systematic occupational health care system for workers in small enterprises. Occupational health care services are consisted of various professional services such as physician, nurse, hygienist and so on. It is difficult for employer of small enterprises to provide these professional services to their workers with responsibility by themselves. So utilization of GHCS for workers that share experts and facilities can make it more efficient to improve workers’ health in small enterprises. It is also helpful for employer to reduce economic burden for hiring them.

The GHCS is proposed by Professor Kyu Sang Cho, former President of Korean Industrial Health Association and Emeritus Professor of the Catholic University of Korea, in 1970’s and adopted in late 1980’s by Korean Ministry of Labor. In 2008, 96 Occupational Health Institutions participate GHCS of 9,900 industries. GHCS is team approach system by physician, nurse and hygienist for small enterprises workers. These team visiting are provided by physician, nurse and hygienist. The physician visit industry monthly to provide medical consult of worker. Also, nurse and hygienist visit the industry weekly for give their service to workers. The cost of GHCS per worker per month is around 3,800 Korean Won ($3 US). Industrial Safety and Health Act is documented detailed activities of GHCS for workers. Although, health manager in small enterprises is not full time personnel, this GHCS give comprehensive and continuing health care services for workers in small enterprises. This occupational health care system for workers in small enterprises is unique system in Korea. Thus, it is needed to develop this unique system continuously to achieve goal of good health for all workers.
Poster 5:

‘A Study on the Activities of the OH Doctors for the SMEs in Korea’
by Chung Yill Park, Ph.D. Prof., The Catholic Univ., Seoul, Korea
Myung Sook Lee, Ph.D., Director, Korea Industrial Health Association, Seoul, Korea
Jae Hoon Roh, Ph.D., Prof., The Yonsei Univ., Seoul, Korea
Byung Soo Choi, Ph.D. & Kyu Sang Cho, Ph.D., Korea Industrial Health Association, Seoul, Korea

Introduction: There are two types of OHS conducted by the OH doctors for the industries in Korea. The one is the service conducted by the full-time factory doctors in the large factories, and the other is that by the OH doctors belong to the GOHSCs for the SMEs. This study was carried out to identify the activities of the OH doctors of GOHSCs for the SMEs.

Methods: The data were collected from 112 doctors of 86 GOHSCs between Sep. and Oct., 2008. Data were analyzed with SPSSWIN 12.0 program.

Results: Among 112 doctors, 85.7% were male. In age distribution, 50.9% of them were over 60 years old. The length of career in OHS averaged 10.6 years. 55.1% of them were the specialist of occupational medicine. 38.4% of the doctors undertook 75-100 workplaces and 6,226 workers on average. In terms of working days, 77.2% of them worked for 10 days or more and the others worked for less than 10 days a month. Among the workplaces, 79.9% of them had visits of the doctors once in every 6 months, 32.6% of them met the doctor in every 1-3 months. The industrial nurses and hygienists visit the workplaces between the visits of the doctors. The main OHS activities of the doctors were composed of health consultation, health check-up, walk-around surveillance of workplaces, etc.

Conclusion: The doctors thought that it is necessary to increase the number of visit to the workplaces in order to improve the services of the doctors of the GOHSCs for the SMEs. In this regard, it was found to be essential to bring the issues, such as rearrangement of the permitted limit of the number of workplaces per a doctor and formation of schemes for securing numbers of OH doctors in need, into full consideration including the issue of revising laws and regulations concerned.
Poster 6:

‘Occupational Health Activities by the workers and the Managers Based on PAOT Program in the SMEs in Korea’
by Myung Sook Lee, APN, Ph.D., Director, Korea Industrial Health Association, Seoul, Korea
Kee Hong Cho, Director, Federation of Korean Trade Unions, Seoul, Korea
Byung Soo Choi, Ph.D., Korea Industrial Health Association, Seoul, Korea
Moon Hee Jung, Ph.D., Prof., The Hanyang Univ., Seoul, Korea

Introduction: The importance of participatory program for occupational risk reduction in the SMEs is gradually increasing. This project was launched for the purpose of enhancing the capability of the workers and the managers in occupational health activities in SMEs by introducing PAOT program.

Methods: The project was jointly proceeded by the KIHA and the KFTU. The PAOT program was composed of 4 steps; Training of PAOT facilitators, Conduct PAOT workshop of the workers and the managers in SMEs, Follow-up visit to the workplaces, and Achievements workshop. This project was conducted for 6 months in 2007 and 19 factories participated.

Results: The training course was organized of two types. The one was the 3-day training course for PAOT facilitators, and the other was the 2-day PAOT workshop of the workers & the managers. Follow-up activities were consisted of visiting the workplaces by OHP. The managers and the workers from the participating enterprises exchanged their experiences and materials of improvement such as photos of good examples at the achievements workshop. The final results showed that 13(87.0%) enterprises out of 15 enterprises, which had set up safety and health improvement plan at the beginning of the project, had carried out the plan and had improved one or more items. As a whole 26 items(52.8%) out of 50 items set-up in the plans had been improved.

Conclusion: The analysis of the 26 improvement cases in terms of 'working conditions before and after the project', 'contents of the improvement', 'advantage of the improvement' and 'the cost of the improvement', showed that those improvements were achieved at the very low cost in a short period of time. With these results we concluded to suggest that the PAOT program should be expanded to more and more SMEs in Korea nationwide with the support of the Government.
Poster 7:

‘Production flow and quality system for SMEs’
by A. Kujawińska, Ph.D. Eng, & K. Żywicki, Ph.D. Eng, Poznan University of Technology, Poznan, Poland

A characteristic feature of small and medium enterprises (SMEs) is their adaptability to clients’ variable and various requirements, i.e. costs, deadlines, product quality, etc. Small and medium enterprises are flexible and therefore they quickly react to changes in their environment and on the market. Their operational effectiveness and their competitiveness on the market depend not only on a firm’s resources but also on the extent of their utilization. The optimal utilization of resources provides a solution to the production flow control problem. For this purpose one cannot adopt neither methods nor computer systems dedicated for big companies not only due to high cost of such systems but also the fact that big companies have a higher production stability, which makes it possible for them to design a stable schedule.

In this paper there were presented assumptions for production flow and quality control system in SMEs allowing for the possibility to react flexibly to changes in production conditions and orders (including changes in ongoing production orders). Variability of orders is most of all the effect of an increasing application of “from push to pull” production model, which is beneficial for a manufacturer of end products (it produces no more items than they are needed). At the same time, the mentioned variability causes great difficulty for companies cooperating with an end product manufacturer - they are forced to adapt dynamically to these changes.

The system consists of three modules: varianting, scheduling, and quality control. This system allows to:
- increase effectiveness of resources utilization, which should translate into lowering production costs,
- shorten the time of realizing different production orders,
- maintain a required product quality irrespective of disruptions affecting a production system.
Production flow and quality system for SMEs

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K. Żywicki, Ph.D. Eng, Poznan University of Technology, Poznan, Poland, krzysztof.zywicki@put.poznan.pl

Abstract
In this paper the assumptions of production flow and quality control system for small and medium enterprises are presented. The characteristic element of the system is dynamic change of production schedule depending on changeable conditions of production tasks. The system will make it possible to determine optimal production flow and choose optimal production conditions planned in the schedule.

Keywords: technological process control, quality control, technological processes varianting.

INTRODUCTION
A characteristic feature of small and medium enterprises (SMEs) is their adaptability to clients' variable and various requirements, i.e. costs, deadlines, product quality, etc. Small and medium enterprises are flexible to which quickly react to changes in company's conditions and on the market. Their operational effectiveness and competitiveness on the market depend not only on firm's resources but also on the extent of their utilization. The optimal utilization of resources provides a solution to the problem of production flow control. For this purpose no methods of acting or computer systems dedicated for big companies can be adapted. It is not only because of high cost of such systems, but also the fact that big companies have a higher production stability, which enables them to design a stable schedule.

Production control in small and medium enterprises is connected with the necessity to work out a flexible marketing plan – the scheme of workshop (production) orders which will respond to changes in customers' orders as well as new orders not included in the earlier production scheme. For such a “dynamic” marketing plan an equally dynamic production...
scheme should be devised. It is the base for launching deliveries, matching technological operations with workstations (effective management of company’s resources), as well as setting deadlines for realizations of particular tasks.

In this paper there were presented assumptions for production flow and quality control system (PFaQCS) in SMEs allowing for the possibility to react flexibly to changes in production conditions and orders (including changes in ongoing production orders). Variability of orders is most of all the effect of increasing application of the “from push to pull” production model, which is beneficial for a manufacturer of end products (he produces no more items than they are needed). At the same time, the mentioned variability causes great difficulty for companies supplying to end product manufacturer - they are forced to adapt dynamically to these changes.

The core of PFaQCS is presented in Fig. 1. The functioning of PFaQCS commences when a new order is accepted for realization. The order must include construction documentation and other information concerning the scope and deadlines. Each order is categorized according to its importance. The importance category might include different criteria. The criteria might concern a client with respect to his cooperation regularity or on time payments, as well as an expected outcome of order realization such as a possible high profit.

Construction information of a made-for-an-order product constitutes input data for devising variants of the technological process (technological process varianting module). The devised variants express alternative ways of realizing a technological process. They must be realistic and feasible in conditions of a given company in constructional and quality respects.

It will form the basis for devising possibly best production flow schedule with respect to optimal usage of company’s resources and costs of order realization. The cost and time of realization will be taken as the criteria of a technological process. Of course, they must meet quality limitations. The varianting will be based on the authors’ method called the Features Method (FM).
Production flow and quality control system makes use of the designed variants of a technological process as well as an order’s importance for working out a dynamic production schedule. Information stemming from this schedule constitutes the basis for launching workshop (production) orders, i.e. attributing orders to particular resources of a company. During the realization of orders at workstations, the module of production flow and quality control will be updated with the information concerning:

- Workstation status (e.g. busy, on schedule, free),
- Ongoing production status (e.g. product, product line, technological operation),
- Obtained product/process quality (e.g. dimensions, surface roughness),
- Incidents disturbing process (e.g. loss of quality achievability, corrective measures undertaken).

Information about disturbances occurring on the level of workstation cells or their proper functioning (according to dynamic schedule) makes it possible to take reasonable decisions about acceptance of a new order or possible corrections in orders being realized. It is connected with the necessity to make changes in the production schedule. As a result, the schedule, in response to updated customers’ needs, will be adapted to the current situation at workstations.
TECHNOLOGICAL PROCESSES VARIANTING

Designing a technological process should be characterized by searching for the best (optimal) solution in order to achieve a required criterion. Therefore, it is a multi-variant and multi-stage decision process in which the subject of machining gets changed from one stage to another, starting from a finished product, ending at a semi-finished one.

During designing of technological processes many variants are considered. Each of them has to be subject to assessment from the point of view of the assumed criterion, e.g. time or costs of production. Varianting may take place at many levels of technological process structure for a kind of a semi-finished product.

Generally speaking, technological process varianting can be divided into two area (Feld 2000):

- varianting of technological process structure (global optimization, optimization of basic links between elements of technological process structure): system of operations, procedures, machining transitions – working out alternative solutions at this level is called structural optimization,

- **parametric varianting** (local optimization; optimization of technological process subsystems) – at this stage, factors subject to varianting have no influence on other levels as in, for example, optimization of machining parameters.

Examples of varianting methods and structural optimization were included in the works (Susz Knosala 2004, Tanga 2004). These methods mostly involve use of Graph Theory. Their main aim is to determine alternative solutions for a given sequence of performed operations or processing procedures. This sequence is the result of setting interdependence (consecutiveness) and interrelation of performed procedures form the point of view of technological process requirements.

Parametric varianting (optimization) of a technological process concerns mostly machining parameters. Selection and optimization of machining parameters is part of a wider problem, i.e. selection of conditions for machining process. The aim of the optimization is to determine parameters’ values which are possible in certain conditions and exist within acceptable solutions determined by restrictions. These parameters are: machining speed, feed and cut enabling to achieve the extreme value of the used optimization criterion. On the basis of the analysis it can be said that there are no methods (solutions) of varianting which would allow for collective examination of these two areas.
Designing technological process variants in the production flow and quality control system will take place with the use of the methods including the authors’ Features Method (FM). The varianting method in its essence comprises varianting a technological process of the two mentioned areas: structure and parameterization.

The assumption of the Features Method (FM) is that in a given part being processed it is possible to isolate features that can be defined as: isolated elements of a part being processed which constitute its final construction shape; they have characteristic geometric dimensions and quality parameters (e.g. surface roughness, and accuracy of the making) which determine the way this part is made. This type of features was called constructional features (CFs).

Shaping of a semi-finished product takes place as a result of making operational features (OFs) i.e. features made as a result of planned making of CFs. The CFs comprise a particular processed part and have a determined initial state (geometrical shape, quality parameters) which, as a result of applying a given machining method, turns into the final state (bringing OFs close to CFs).

Varianting with the use of Features Method concerns:

- setting variants of OFs sets defining the strategy of shaping a particular part (for further detail see [9]),
- setting variants of OFs’ ways of making included in sets.
- Varianting of OFs’ ways of making takes place in two areas:
  - of technical measures: machine and machining tools and which make it possible to make a given OF with respect to the surface type (e.g. cylindrical), geometrical parameters (shape and dimensions characterizing surface), and quality (preciseness of the making, roughness),
  - machining parameters: machining speed, , feed, cut depth.

In effect we get a set of solutions comprising machine and machining tools for each defined OF.

This scope by definition is a technological operation so consecutive OFs’ scopes constitute a technological process. Each set of scopes also has a fixed total cost and realization time. From this point of view, the system pinpoints the set of scopes which is optimal with respect to time and cost criteria.
DYNAMIC SCHEDULING

Production scheduling is a vital element and significantly affects the costs of the whole production process. It is also a complex stage which is proven by the fact that the problem is discussed in numerous scientific publications. Many of these, however, touch upon only specific cases of scheduling. Finding optimal variants because of assumed variants’ criteria (most often they are lowest costs and on-time production completion), their implementation and controlling are not always possible due to contradictory requirements and the possibility of production disruption occurrence (Kalinowski 2003).

Scheduling gains even bigger importance in the case of new requirements such as flexible production (short product lines, changeable customers’ requirements) or fast production (constant reduction of time between a product concept and its manufacturing). Proper planning and then controlling production flow is a key condition for providing a client with a required product. At the same time, the complexity of scheduling as well its connection with the rest of production preparation is growing.

Until recently, in scheduling solutions different methods were used, starting from discrete programming through metaheuristics to artificial intelligence application. Unfortunately, practical implementations were used only for specific conditions (constraints), for example, one or two machines, for rhythmic production. Additional assumptions (e.g. infinite warehouse capacity) caused the situation that these solutions in most cases were barely practicable in real production.

The result of the research on scheduling is the devised set of methods in which the scheduling process is carried out with the use of the analytical method applying priorities rules. Next tasks occurring in the system are sequentially assigned to proper resources (defined in earlier stages of technological processes varianting), and the tasks of highest priority orders are sequenced as first. When making changes to the schedule as a result of particular signals from the system (e.g. failure at a workstation, completion of machined part) the same method is used, however, only the necessary matches of tasks with resources are changed (the whole schedule is not restructured).

The update of the dynamic schedule is done in cycles. The frequency of updating is constant. Signals from the system are gathered and ordered according to their importance between the cycles (again, the key importance is of particular orders’ priorities). The scheduling algorithm performs an online check of completion times of particular orders and compares them with the deadlines defined in orders’ details in order to avoid going beyond them. If a given order
cannot be scheduled in a way that it would be completed to the deadline, the operator is informed about it. He can introduce corrections (e.g. through altering the priorities). In later development, to the scheduling module we plan to add the advisory system which would suggest the operator the solutions of a problem being optimal from the point of view of assumed criteria. After completing the scheduling phase, the updated lists of orders are entered into the production system, more specifically, to the workstations whose production schedule has been changed.

Note that the method assumed at its present stage of development can be modified or replaced with a different one. It stems from the fact that we are still looking for the method which would be well adapted to the dynamic scheduling requiring not only some optimizing mechanisms but also high effectiveness.

PRODUCT AND MANUFACTURING PROCESSES QUALITY ASSESSMENT

Quality requirements with respect to manufacturing processes of machine parts boil down mostly to requirements concerning dimensions and shape preciseness of a product and top surface characteristics. These qualities must ensure unfailing operation of a product for a period planned by a designer and constructor. One of the means to achieve this – along with maintaining economic effectiveness of manufacturing – is quality control in the whole cycle of product’s life (Hamrol 2005, Smith 2004).

Quality control is based on making use of data appearing during the widely understood quality management. It involves active and dynamic (adaptive) control of production processes in all production phases: product concept, designing, technical production preparation, making, and operation. Until recently, the approach to the quality provision problem involved controlling and taking controlling actions after completing consecutive production stages (e.g. technical control carried out at the end of each operation).

Modern quality control is realized continuously, already in the time of production process realization (Woodwall 2000). It has the characteristics of short-term, immediate actions, interventions and its aim is operational provision of the required quality of the making. These actions might involve replacing a tool, correcting process parameters, tightening control criteria, etc.
Despite being in possession of the advanced measurement technique, and applying more and more friendly and complex software for the processing of quality control data, it is really problematic to execute the information exchange between the making process and the other elements of the system. In many cases quality data is wasted in the time of production – the data is only used for online process regulation, and is frequently gathered only to satisfy buyers’ demand for the so called “quality records”.

Traditional quality control tools have many weaknesses. For example, process control charts and other quality achievability indexes do not provide information about the reasons for process disturbances, and the tips about corrective actions. It is the cause of the fact that the potential capabilities of statistical process control tools are not fully used. In literature on this subject, there is no information about the quality (of products, machines, and processes) in the area of production flow control (scheduling).

Hence, it is justified to undertake work to eliminate or at least reduce these weaknesses as well as use the gathered quality information in deciding about dynamic scheduling.

In the scope of the realized project on production flow and quality control system. The data and information obtained form the process will concern machine setting parameters, process parameters, determined values of product characteristics or statistics (average, standard deviation, etc), quality indexes values, the set of information about the causes of process deregulation (e.g. edge crumbling, edge chipping, operational error, etc.), and undertaken corrective actions (e.g. tool replacement, setting correction, change of cutting depth, etc.)

They are collected and processed with the use of event analysis, fuzzy logics and effective neuron network.

The quality assessment of a product/process makes it possible to create a quality grade which can be achieved through applying a particular production variant. It is one of the criteria taken into account in order scheduling.

CONCLUSION

Within the framework of the project there will be undertaken works leading to the development of the production flow and quality control system, dedicated for small and medium enterprises of a flexible, often changeable, production scheme. Such a system will make it possible to:
- increase effectiveness of resources’ usage, which would result in lowering of production costs

- shortening time of realizing different production orders

- maintaining, irrespectively of production disturbances affecting the system, the required quality standard.

Applying the system of production flow and quality control in SMEs will make it possible for a company to get adapted to changeable conditions, and at the same time, reach a possibly high productivity. It is an extremely important condition to win the competitive advantage on the market, not only on the country’s scale but globally as well.

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Poster 8:

‘Methodology of Developmental Family Enterprise’
by E. Więcek-Janka phd, Institute of Management Engineering, & Kujawińska phd eng.,
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A problem: The authors intend to present the methodology of generalization of family and business relationships in family microenterprises in Poland. The first objective is to analyze the influence of family bonds on company’s business activity. The second is to analyze the influence of company on the family “plunged” into the company’s activity. According to the authors and preliminary research results those relationships have significant influence on the development of microenterprises. A new aspect – compared to the previous elaborations – is noticing a specificity of development of enterprises which are being managed by a family.

Methods: Research methodology includes realization of 5 stages, consisting of:
1) Gathering opinions about the competitive advantages of family enterprises – performing expert interviews with the researchers of this area
2) Gathering opinions about the competitive advantages of family enterprises – performing deepened interviews with the owners of family enterprises who succeeded on the market.
3) Examining family enterprises in the aspect of existing relationships between enterprise and family. Identification of interference areas regarding the rules of acting, structure of decision making, styles of management, reasons of conflicts, perceived economic and legal barriers, etc.
4) Preparing the scenarios of career paths according to Lloret’s methodology (family enterprise life cycle) and identified (in expert research and deepened interviews) characteristics of polish market and the family microenterprise owner.
5) Designing an xxx algorithm according to presented picture

Results: Model’s design:
Methodology of Developmental Family Enterprise in Poland

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Summary: The authors presented the methods for the generalization of family and business relationships in family micro-enterprises in Poland. The first objective is to analyze the influence of family bonds on company’s business activity. The second one is to analyze the influence of company on family “plunged” into company’s activity. According to the authors and preliminary results of the research those relationships have significant influence on the development of micro-enterprises. A new aspect – compared to the previous elaborations – notices a specificity of development of enterprises managed by family.

INTRODUCTION

The problem of family influence on development and functioning of family micro-enterprises in Poland has not been widely discussed in research. The main reason for this situation is interdisciplinary character of this subject. The authors’ research will indicate the interference areas between family and micro-enterprises and will define the interaction line: destabilizing vs. stabilizing. There have been noticed differences between family micro-enterprises and other SMEs. They concern all aspects of management, however, only a few scientific centers have tried to discuss these differences in the systemic way.

The specificity of family micro-enterprises was noticed by the European Parliament. Jurgen Schroder, in the report on the development of SMEs in developing countries from April 27, 2006, postulated “special politics for SMEs”. He also highlighted that “micro-enterprises are mainly family businesses which have roots in the environment where culture and tradition have a basic role”. Colin L. Powell, the former US Secretary of State pointed out the importance of micro-enterprises for the development of US economy (An Electronic Journal, U.S. Department of State, Vol. 9, No. 1, Feb. 2004): „Over the past five years, America’s
average annual funding for micro-enterprises has been around $155 million. This support has reached more than 3.7 million micro-enterprises worldwide — whose activities include producing goods for export, such as footwear, furniture, agricultural crops, and foods; providing services ranging from equipment repair to information technology; marketing raw materials to manufacturers, and trading a wide variety of goods”.

**FAMILY BRANDS**

World and European markets have a rich tradition in developing family brands, for example: Levi’s, McDonald’s or Harolds. There are many examples of powerful companies which were founded as family enterprises. Poland is not an exception. Despite political and economic turmoil including two world wars and 45 years of communism, on the Polish market there are many family enterprises which have existed for over a century. They have not only survived but are developing dynamically and are winning European markets.

Many enterprises of Polish origin have found investors with global range. Below there are presented companies from different industries: jeweler’s craft, confectionary, shoe making and wood industry. All of them have a 100 years tradition. They were set up in the 19th century and are run by consecutive generations of the founders’ families. The oldest jeweler company in Poland is “W. Kruk” which was set up in 1840. At present, the Kruk Company has 35 jeweler shops. The capital group consists of Rytosztuka and Deni Cler shops. The group employs 500 people. In 2007 the turnover amounted to 28 million Euro and the profit was of nearly 2.5 million Euro. The oldest confectionary in Poland is „A. Blikle” which was founded in 1869 and is currently managed by the 5th generation of the Blikle family. At present, the company employs 250 workers manufacturing about 100 different kinds of confectionary which is sold in its 20 cafes. In 2006 the company’s turnover was 6 million Euro. The Klielman company has been manufacturing and selling made-to-measure shoes in the same place in Chmielna Street, Warsaw for 118 years. The 5th generation of the company owners realizes the strategy of: “individual client – individual approach”. The offer includes handmade shoes made to measure; therefore the price ranges from 300 to 3500 Euros. Kilmann shoes were worn by for example: Charles de Gaulle, Władysław Sikorski and Donald Sutherland.

In 1898 Kazimierz Mettzler founded the sawmill in Kaszczor which is now managed by the 5th generation of the Mettzler family. The company employs 45 people and in the summer season up to 100. The 2007 turnover amounted to 2 million Euro.
The survival of a family company for over a century requires amazing persistence, knowledge, patience and skills from both workers and owners. In this paper the authors are trying to verify the following theses:

1) The success of a family company depends on personality, management style and determination of owners

2) The owner is responsible for strategic decisions and risk which stems from them

3) Delegating responsibility is connected with kinship and inheritance. (Bielwaska 2008, Safin 2002)

COMPANY-FAMILY SYSTEM

Statistical data indicate that the importance of SMEs in Polish economy is increasing. It is caused by the fact that SMEs easily adapt to changeable and variable customers’ requirements, e.g. costs, production time, product quality, etc. These companies are flexible and quickly react to the changes in the company’s environment and on the market. Their effectiveness and competitiveness on the global market depend not only on the company’s assets but also ability to use these assets, investment ability, and quick decision making.

Apparently, the big number of SMEs is constituted by small family companies, the so-called family-micro enterprises. According to the law a micro enterprise is understood as the one which in one of two last financial years: 1) employed on average fewer than 10 workers, 2) gained a yearly net turnover from product, services and financial operations not exceeding 2 million Euro or its total assets’ value in the balance calculated at the end of these years was not higher than the Euro equivalent of 2 million PLN (Pentor 2003-2005)

The authors’ research shows that the way of managing a family company and making decisions depends not only on knowledge, skills and intuition of an owner but also the relation between family and company. We can make a thesis that the management style gains its peculiarity because of the family factor. Therefore, we cannot analyze the development of family SMEs by means of known methods which only allow for economic, technological and political factors. There are no tools which would help owners of family SMEs to take key decisions and which would allow for psychological factors and relations between family members involved in company’s life.

The aim of the research is to find out the specifics of the functioning of the company-family system further called CFS. The CFS will be understood as a social system. It consists of
actions in which individuals or groups of individuals are engaged within the scope of a given social environment which in this case is a family micro-enterprise. The intention of the authors is to investigate the following:

1. Interpersonal and business relations within an enterprise rooted in family,
2. Family ties, communication and conflicts in a family plunged in company’s activities.

In the below description a good deal of attention will be paid to areas of interaction between the elements of the described system, and distinguishing pro-development and anti-development features of these areas.

Another goal of the authors is to propose a development strategy for a family micro-company which will make it possible for it to make the most of the family potential in the company. The development strategy will be understood as a planned sequence of actions realized by a micro-company to develop, discover and improve the potential of the family as well as other workers of the company. This is a process during which a micro company sets its goals to be realized in a specific time and formulates the ways of achieving them.

One of the authors’ objectives is to create the algorithm which would enable to match a proper strategy of the so called “developing family company” (DFC) to a given enterprise. The database of strategies will be developed on the basis of research results of family enterprises in a chosen region of Poland. The core of the algorithm will be using scenario analysis in a flexible way. The scenario analysis as a tool of strategic planning helps to plan the strategy of a company for the longer period. These methods make it possible to envisage different types of phenomena occurring in a changeable environment, which will help entrepreneurs to get ready for them.

Along with analyzing economical, technological, social, legal, and political spheres, an important innovation of the developed method will be introducing the sphere of psychological interactions between family members, e.g. conflicts over roles, owner’s power, and succession. The application of the DFC algorithm will involve auto-diagnosis of a micro-enterprise’s owner’s personality in specific areas of company’s and family’s functioning. The obtained results will determine the number of possible scenarios for a company’s future. The DFC algorithm will include the defined set of auto-diagnosis tools for a micro-enterprise. The effects of the analysis concern the practical aspect of applying management tools in family micro-enterprises, i.e. creating the DFC algorithm whose main element is the flexible choice of company development scenarios and applying them in a company. The added value of the analysis will be combining a simulative research area with didactics.
The authors’ goal is to implement the developed algorithm with small financial and time expenditures acquitted by companies interested. The main addressee of the method will be small and micro family businesses which have small investment potential. The next result of the works will be creating a possibility to improve competitiveness of family micro companies.

OBJECTIVES AND METHODS

The objective of the undertaken research is to identify and generalize family and business relations in family micro-enterprises. On the one hand, the aim of the research is to analyze the impact of family ties on business activities of a company, and on the other hand, the influence of company on a family plunged into company’s activities. According to the authors and preliminary research these relations have a great impact on the development of a micro enterprise. A new aspect, which is not found in earlier investigations, highlights the specifics of the development and management of a family micro company. The authors assume making a diagnosis of the following areas:

1) Company’s and family’s objectives with respect to:
   - Formal and informal communication,
   - introducing innovation, innovation leaders,
   - determining and realizing implemented rules concerning the division of financial surplus
   - caring for company’s development.

2) Owners’ management styles in next generations (on the basis of Koch’s test):
   - identified will be areas responsible for isolated management style
   - determined will be reasons for friendly management style
   - determined will be areas for using eager management (style ???)
   - identified will be areas for using complex style

3) Competence analysis of an owner and his successors:
   - technical competence
   - social competence
   - creative competence
4) The model will consist of three modules enabling to:
- determine the advantage of family’s influence over company or vice versa
- identify the vision, mission or targets of a company
- owner’s influence on undertaken actions in company
- other ones distinguished during market research

Identifying and describing these relations will be the base for developing the database of development strategies for a family micro-enterprise as well as preparing the method of selecting a strategy (the DFC algorithm) for a given family micro company considering specific criteria (e.g. capital quantity, time, cost of training, etc.) (fig.1). Along with analyzing economical, technological, social, legal, and political spheres, an important innovation of the developed method will be introducing the sphere of psychological interactions between family members, e.g. conflicts over roles, owner’s power, and succession.

![Diagram](image)

Fig 1. Development of actions in micro-enterprise diagnosis.

The result of working out relations and rules of development of a micro company will be the computer program which will facilitate making both long-term and short-term decisions in a company.

The tool will make it possible to determine a development strategy for a specific family micro enterprise. The choice will take place through interactive completion of consecutive elements
of the database about a company and an owner, and then, generating (with the use of the DFC algorithm) the right development strategy. Development strategy is understood as a planned sequence of actions realized by a micro-enterprise for its development, and in order to discover and develop the potential of a family and other workers.

1) Research methods:
In order to realize the objective of the research it is necessary to undertake research actions both in the practical sphere of family micro companies as well as theoretical aspect of management. Research actions were divided into 8 stages (Fig. ...):

1. Analysis and synthesis of the present knowledge about family micro enterprises – secondary research (compilation and systematization)
2. Obtaining opinions about competitive advantage of family companies – carrying out interviews with expert researchers of this area (preliminary research)
3. Obtaining opinions about competitive advantage of family companies – interviews with successful owners of family companies (extensive research of the history of Polish family companies’ development, Blikle, Mezler, Ryłko, Smorawiński, Kruk, and others).
4) Researching family micro companies with respect to the existing relations between family and company: Identifying interference areas within the scope of functioning rules, decision making structure, management styles, reasons for conflict, economic and legislative barriers, etc.
5) Preparing development strategy scenarios on the basis of Lloret’s methods (family company’s life cycle) and identified (in expert and extensive research) features of Polish market and an owner of a family micro-enterprise.
6) Working out the DFC algorithm
7) Computer implementation of the DFC method
8) Verification of diagnostic and prognostic usefulness of the status in the chosen family micro-enterprises.
CONCLUSION

In conclusion, it is safe to say that the question of a family’s influence on the development and functioning of family micro enterprises is not very popular in scientific research in Poland. The main reason for this is interdisciplinary character of the problem. Factors responsible for development which we find in literature are of economic character and have nothing to do with psychological aspect of micro enterprises’ functioning.

The aim of the research undertaken by the authors is to indicate interference areas between a family and a company as well as to determine the interaction type: destabilizing vs. stabilizing one.

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Poster 9:

‘Integrating HIV Workplace Policy in Small Scale Enterprises to Realise Reduced HIV Related Stigma and Discrimination in Uganda. A Case study of One Small-scale Enterprise’

by Benedict Twinomugisha., Graduate Student & Gro Th Lie, Ph.D., Professor, Research Centre for Health Promotion (Hemil), Bergen, Norway

Abstract (for the Project Proposal): This study seeks to explore how HIV workplace policy may be integrated in small-scale enterprises (SSEs) to realize reduced HIV-related stigma and discrimination at workplaces in Uganda. The aim of this study is to explore how small-scale entrepreneurs and their employees may overcome the challenge of HIV-related stigma and discrimination at the workplace according to their perceptions. To realize this aim I will employ a qualitative research design by utilizing a case study approach. Participants in this study will be purposively selected from one small-scale enterprise. In-depth interviews, focus group discussions and observation methods will be applied in data collection process. Data collected through in-depth interviews and focus group discussions will both be coded into common groups or themes that will be analyzed basing on Kvale’s six steps of analysis. After data analysis, I will write a report and present it to the University of Bergen through Research Centre for Health Promotion (Hemil). Ethically, I will make a presentation to my study participants. Lastly, with my advisor’s approval, I hope to submit my research report to peer review journals for publications purposes.
Poster 10:

‘Managers’ understanding of workplace health promotion activity within small and medium sized enterprises: a Heideggerian phenomenological study’

by Ann Moore; Ph.D., Lecturer in Health Promotion & Nursing, Faculty of Life & Health Sciences, University of Ulster
Kader Parahoo; Ph.D., Director of Institute of Nursing Research, University of Ulster
Paul Fleming; Ph.D., Associate Dean, Faculty of Life & Health Sciences, University of Ulster
(presenter absent)

In light of political encouragement to determine the explicit needs of small, medium-sized enterprises (SMEs) at local level so that appropriate workplace health promotion (WHP) delivery models and training programmes can be developed, the meaning of WHP for SME managers in context requires explication. This study aimed to explore managers’ understanding of WHP and experiences of WHP activity within SMEs in a Health and Social Care Trust area of Northern Ireland.

Given the limited evidence on SMEs’ interest in WHP, the qualitative approach offers a way to explore the potential multiple realities existing within SMEs and for development of that enquiry as the study unfolds. A Heideggerian interpretive phenomenological approach was adopted to allow SME managers’ understanding of WHP and the meaning WHP activity holds for them within the context of their world to be more fully absorbed; mindful that every SME manager’s experience is unique and their experiences cannot be separated from the business culture, history and traditions. Data were collected from a purposive sample of 18 small and medium-sized enterprise managers using in-depth telephone interviews. Benner’s (1994) strategy was used to analyse the data.

‘WHP as a symbiosis of health and business’ emerged as a key theme from the data. The term symbiosis reflects the meaning of WHP for participants as a reciprocal relationship which provides protection from harm and opportunities for employee health improvement, and, in turn, provides protection for the business reputation and viability and boosts its revenue. Within this relationship both employees and employers are perceived as mutually benefitting from WHP engagement and neither to suffer any serious negative effects.

Findings suggest an integrated ecological approach needs to be reflected within WHP policy and practice that extend beyond the individual employee to include consideration of workplace health determinants at employee, environmental, business and community levels.
Poster 11:

‘Managers’ levels of awareness of workplace health promotion activity within small and medium sized enterprises: a Heideggerian phenomenological study’
by Ann Moore; Ph.D., Lecturer in Health Promotion & Nursing, Faculty of Life & Health Sciences, University of Ulster
Kader Parahoo; Ph.D., Director of Institute of Nursing Research, University of Ulster
Paul Fleming; Ph.D., Associate Dean, Faculty of Life & Health Sciences, University of Ulster (presenter absent)

In order to develop effective programme planning methods for all areas of workplace health promotion (WHP) activity, the reality that exists for small and medium-sized (SME) managers needs to be fully explored. More specifically, the meaning of managers’ experiences of WHP activities within the SME context needs to be understood. This study aimed to explore managers’ understanding of WHP and experiences of WHP activity within SMEs in a Health and Social Care Trust area of Northern Ireland.

A Heideggerian (1962) interpretive phenomenological methodology was adopted, using in-depth telephone interviews with a purposive sample of 18 small and medium sized enterprise managers. Data was analysed using Benner’s (1994) strategy for data analysis.

‘Levels of awareness of WHP activity’ were revealed as a central theme and interpreted as ‘high awareness activities’, including the need to (a) preserve and protect employee health and safety, (b) prevent ill-health and injury, and, (c) promote employees quality of daily living, and, ‘low awareness activities’, including (a) the provision of training and development for employees, (b) human resource management, and, (c) consideration of environmental issues such as waste disposal.

An ‘Iceberg’ model, grounded in the data, draws attention to the limited awareness of what constitutes WHP activities and the untapped meaningfulness of organisational and environmental activities for SME managers. The significance of these findings suggests the need to move from the present focus on mainly legislative activities, to bring to light the full potential of WHP for SMEs from organisational and environmental measures, many of which SMEs may already have in place.

A modified version of Green and Kreuter’s (1991) model is proposed to advance practitioners’ understanding of the planning process within the SME context, including potential expected outcomes of improved quality of life for employees and businesses from exploration of epidemiological, behavioural, management and environmental components.
Poster 12:

‘Managers’ experiences of engagement with workplace health promotion activities within small and medium-sized enterprises’

by Ann Moore; Ph.D., Lecturer in Health Promotion & Nursing, Faculty of Life & Health Sciences, University of Ulster
Kader Parahoo; Ph.D., Director of Institute of Nursing Research, University of Ulster
Paul Fleming; Ph.D., Associate Dean, Faculty of Life & Health Sciences, University of Ulster
(presenter absent)

The key to success in promoting WHP activity within SMEs is in making managers aware of the benefits and improving strategies to overcome obstacles to engagement. This study aims to provide clarity for key stakeholders of managers’ unique experiences, the problems they face implementing WHP activities and the contextual influences on the choices they make.

A Heideggerian interpretive phenomenological approach was used to contemplate WHP in the day-to-day life of an SME manager and to reveal rich new insights and a deeper understanding of context specific WHP activity, not achievable or overlooked by empirical approaches. The study was conducted within one Health and Social Care Trust area of Northern Ireland. Data was collected from a purposive sample of 18 managers, using in-depth telephone interviews and analysed using Benner’s (1994) data analysis strategy.

A tension was experienced between the benefits participants perceived to be gained from engagement with WHP activity and the struggles and constraints they currently face within the SME setting. These tensions were found to be mediated contextually by having a ‘home-like’ culture within the business, rural setting familiarity, personal experiences of ill-health, small numbers of employees, fears of invading employees’ privacy, and, increasing numbers of migrant workers.

When marketing WHP, policy planners and practitioners need to pay more attention to contextual tensions SME managers may experience between what they expect they should do legally and morally, and, limitations imposed upon them by virtue of their size, access to resources and geographical location. In particular, there is a need to focus on the provision of appropriate advice, guidance and support for SME managers to meet the unique health, safety and social needs of migrant employees.
Poster 13:

‘A case of participatory approach to improving working conditions in community living support center in Japan’

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Participatory approach to improving working conditions has been reported mainly on nursing home in care workplace of Japan. I will present a case report of participatory approach in community living support center for disabled person in Japan. On the occupational safety and health committee of the workplace, we set the aim of activities to make living and working conditions safe and healthy for both clients and workers at home or other places. We repeated the next steps using action checklists by small group works.

Step 1. Confirm initial situation in workplace. 2. Select or renew items of action checklists to adjust to local situation. 3. Collect local good practices in workplace. 4. Select and implement low cost improvements. 5. Confirm achievements. 6. Follow-up activities.

To be concrete we selected some items from a ready-made checklist, and made rounds in the office and collected photos of good practices. Next, we made the checklist adjusted to local situation by selecting photos with action proposal. For a problem to realize the inspection of client’s home which was the main workplace, we discussed continuously in the committee. One day a client accepted a visit to his home as workplace inspection, because he participated in a meeting of the committee and he knew the aim of the activities. On the visit we examined the environment in the house with the client. We focused on searching good points.

As a result, many good practices and an improvement point were found by the client too. Then an improvement was made at later date. As for the inspection, the client reviewed his house from a viewpoint of his life and the labor of the care staff, and it was a good opportunity to deepen communication. We will extend participatory approach to home care work in the future.
Poster 14:

‘Building a model to the development of small Business: improving the process of environmental regularization of the marble retailers in Belo Horizonte, Minas Gerais State – Brazil’

by Eng. Wanderson Marinho de Abreu¹, PhD, Eng. Luciane Souza Cunha Melo¹, Environment Specialist, Eng. Alex Manzali², MSc, Eng. Márcia Pimentel Carvalho Tabatinga¹, Environment Specialist & Eng. Alexandre Almeida² ¹ Licensing of Industrial Activities Management and ² Fiscal Management of the Environmental Municipal Secretary of Belo Horizonte, Minas Gerais State, Brazil (presenter abstent)

Marble retailers activity is the branch of rock processing industry responsible for the production of bricks, washbasins and other articles based on sawed plates from several rocks. Such activity uses process that generates expressive environmental impacts and professional risks. The solution for these impacts is demanding to its Environmental Licensing and regularization. To small Business, the environmental licensing is still complex. Aiming to increase the amount of regularizations and to promote the improvement on environmental and labor conditions, it was done a diagnosis of points which make difficult the licensing in this activity, as follows: 1. bureaucratic procedures unknowledge; 2. inadequate shortening of impacts what means 2.1. atmospheric emissions; 2.2 liquid effluents; 2.3 noise emissions and 2.4. improper remains final destination.

To solve the items 1-2.3, there were elaborated guidelines to marble extracting and other sectors with information of bureaucratic procedures and base technical orientation to shortening impacts. The problems solution to improper remains final destination that provoke environmental impacts with risks to populations is been developed with the participation of the sector business unions, public and private companies that have the equipment to rock processing and with the articulation of the city hall environmental sector.

The solution considers the potential conversion of these remains in raw material to other products. At the current phase (2009), there are performed tests for stoning remains from marble retailers and their conversion into additional products to the building industry. Even though the remains from marble retailers are still been sent to stretch lands, it is expected soon an alternative to this option, with sustainability and low cost. The recent increasing in the amount of regularized companies in this sector (2007-2008) indicates to be the set of these rules, a potential model of public policies to the small business formalizing of other typologies.
Poster 15:

‘Development of public strategies to the Environmental License of small business: Case studies in Belo Horizonte city, Minas Gerais State – Brazil’
by Eng. Wanderson Marinho de Abreu¹, PhD., Eng. Luciane Souza Cunha Melo¹, Environment Specialist, Eng. José Eustáquio de Ávila¹, Environment Specialist, Eng. Ambrosina Marques¹, Environment Specialist, Eng. Alex Manzali², MSc., ¹ Licensing of Industrial Activities Management and ² Fiscal Management of the Environmental Municipal Secretary of Belo Horizonte, Minas Gerais State, Brazil

The environmental license is one of the most important procedures to the regularization of small business in several states of Brazil. In urban centers, the work conditions of them are related with the local environmental impacts referring to generation of liquid effluents, solid remains, atmospheric and noise emissions and vibrations from the productive activities of these companies. Due to the inexistence of low cost technologies to shorten such impacts, to disseminate of environmental and labor proper practices, the lack of well-prepared professionals to fulfill the particularities of the small business and also bureaucratic procedures, the shortening of these impacts –necessary for regularization process– is still considered complex.

Based on an analysis of procedures adopted on licensing process it has been possible to identify and develop strategies that allow increasing the amount of regularizations and improving the quality of life to the community. To reach this goal, since 2007, several actions were or are been implemented with the adoption of public technical orientation for small business, simplifying the bureaucratic procedures, issuing brochures explaining detailed directions about licensing and basic technical information to the environmental regularization. Besides, it have been spread the proper practices to remains management through mini-courses directed for environmental education for small business professionals and public companies.

Environmental sustainable solutions to specific problems such as the destination of marble extractors remains are been developed. In association with junior-companies and universities are foreseen studies to adapt pollution control systems to small business reality making the regularization easier. Already implemented actions or in current implementation process represented an approximation from public sector with small business. The expressive increasing on the mount of regularizations indicate that –at least in Brazil– to understand the needs of small business and to build alternatives to fulfill them is fundamental to assure their surviving and development.