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**Occupational health and safety management systems - An
institutional analysis**
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Abstract

The analysis in this paper concerns how national institutions impact the implementation of occupational health and safety management systems (OHSMS) in different types of market economies. The main objective is to show how variation in national institutional frameworks influences the implementation of OHSMS, and thus, relative performance. There are two main conclusions. First, dominating organisational templates and co-operative industrial relations structures allow firms from coordinated market economies (CME) to more effectively implement OHSMS than those from liberal market economies (LME) which are embedded in adversarial industrial relations. Secondly, due to differences in the institutional framework among countries, the mechanisms of enforcement for OHSMS need to be designed in different ways. The article contributes to the literature by showing that the implementation and functioning of OHSMS are mediated by the different institutional logics in which firms are embedded.

Keywords

OHSMS, Institutional theory, national institutions, managerial models, legitimacy.

1 - Introduction

During the last two decades, certified management systems (CMS) have gained importance and have been used by firms all over the world in different organisational fields. There has been a diffusion of self-regulatory regimes in the United States, Europe, and other advanced economies (Gunnigham and Rees, 1997; Teubner, Farmer, and Murphy 1994), creating an emerging world of certifications and standards (Brunnson and Jacobsoon, 2000; Rees, 1997). CMS are an attempt to codify practices that are socially desirable and economically viable in areas as diverse as quality, working environment, environmental management, labour management, and e-commerce security. Examples of CMS include the ISO 9000 (quality), ISO 14001 (environmental management standard), OHS 18000 and the SA 8000 (health and safety management systems) and ISO 26000 (social responsibility). CMS are a form of self-regulation which has been proposed as a complement to government regulation. A whole industry has emerged and a great scholarly interest focuses on these standardisation processes which have been characterised as “soft law”. In Europe, new legislation in the field of occupational health and safety made the implementation of OHS 18000 very likely in most firms. Occupational health and safety management systems (OHSMS) should help

companies to find preventive ways of fulfilling new legal obligations in this area. The interesting question of how firms in different nations implement OHSMS, and the resulting impact on OHS performance have become increasingly important in recent years.

Whether such processes of self-regulation work in practice and are able to improve the performance of different areas remains unknown (King et al., 2005). Jensen (2002:224) argued that the successful implementation of a legally based participatory scheme in the area of working environment, as predicted in the European legislation, would be dependent on public legitimation based on an internalised mutual understanding of the general aim of the participatory scheme established.

This paper has two main objectives. First, the diffusion of OHSMS by focusing on the legitimating aspects of it is examined. Drawing on institutional theory, we will argue that OHSMS may serve as a source of legitimacy for firms. This legitimacy needs to be maintained as a resource with the potential to yield significant economic and competitive benefits. However, we suggest that when firms search for external legitimacy, organisational actors may act upon the legitimising process, creating unintended consequences for OHS performance. Organisational actors may be able to change the search for legitimacy from being an end in itself towards a means of improving OHS performance. The conditions which will be more likely to support this change in ends and means are discussed in this paper.

Second, the extent to which the functioning of OHSMS is dependent on the different institutional environments for their diffusion and implementation is discussed. The research identifies the differences among national institutional frameworks which are more supportive for organisational templates under which firms are likely to meet legitimacy needs and at the same time improve their OHS performance.

2 - Self-regulation of health and safety.

Occupational health and safety management systems (OHSMS) are a new type of soft regulation. They are characterised by a systemic approach to planning and implementation of continuous improvement in the area of health and safety. The main

ideas behind OHSMS are the continuous examination and improvement of work processes by teams of organisational members who are trained in problem-solving techniques and empowered to make decisions on the basis of their learning and experience (Gallagher, 2000). In the last years, OHSMS have become the most important tools for managing working environment issues in most developed countries.

OHSMS outline broad work environmental objectives for companies and require them to perform certain functions and employ specialised individuals. Firms need to establish performance targets for themselves, as well as the means they intend to employ in order to meet these targets, but the OHSMS do not specify what output levels will be achieved, nor how they will make a difference. The process for how firms can improve their standards is to some extent open and undefined. Because of this highly open way of setting ends and means, there is an ongoing debate about the diffusion, effects and ways of working of certified management standards. An important issue when dealing with self-regulation is the capacity of different firms for self-regulation. Are they able to take charge of what is inscribed in the ideas of self-regulation? Do firms have the human capabilities to solve the problems that they face in relation to OHS? What should be the role of the governmental institutions and trade associations in helping firms to improve their capabilities for self-regulation?

Critics of OHSMS suggest that the implementation of the certification will lead to a bureaucratisation of the health and safety issues, and that the results will be worthless or even depreciative for organisations (Quinlan and Mayhew, 2000; Kamp and Blandsch, 2000). The ideas of continuous improvement contained in these systems are criticised as rather contradictory as they do not support creativity and experiment, which are crucial pre-requisites for learning (Kamp and Blandsch, 2000: 420). Without explicit sanctions, OHSMS will fall victim to opportunistic behaviour. OHSMS were created under influence of rational bureaucratic theories which are incompatibility with genuine worker involvement (Nielsen, 2000). Else and Beamont (2000) argue that “the use of an OHSMS can mask OHS problems, delude an organization into perceiving it is effectively managing OHS and distract effort and resources away from OHS towards the management system itself” (ibid:36). Self-regulation will only work when explicit sanctions and state supervision are included, preventing opportunistic behaviour among firms. Otherwise, companies can send a legitimised image to their external environment

while at the same time presenting different actual behaviours. This would represent a type of decoupling process (Meyer & Rowan, 1977, Westphal, et al., 2001), in which organisations are able to signal the adoption of certain practices to the external environment but at the same time are preserving internal structures which are not necessarily legitimacy-driven and coherent with the external image. Based on the evidence to date, Robson et al. (2007) argue that there is no clear indication that OHSMS represent a solution to OHS issues; the body of evidence is still insufficient to make recommendations either in favour of or against OHSMS (ibid:329).

Supporters of self-regulation argue that the establishment of OHSMS triggers a learning process which results in improvements of health and safety standards. Hudson (2000) argues that safety has undergone a development from an unsystematic, albeit well-meaning, collection of processes and standards, to a systematic approach specific to safety. OHSMS are designed to function as a benchmarking process, i. e. as a method for identifying aspects of an organisation's activity that could be more efficient and/or effective by comparison with performance in other relevant departments and/or other organisations (Borys,2000; Gardner and Winder,1999). Organisations would be inclined to use OHSMS as a searching map (Weick and Roberts, 1993) to improve health and safety performance and solve internal problems (Zwetsloot, 2000). Already during the attempt to become certified, different organisational groups would interact and learn in the process how to better deal with health and safety problems. This learning process would be facilitated by the current organisational paradigm which advocates more deliberation and influence at different hierarchical levels. Saksvik et al. (2006) argue that OHSMS and process evaluation may be the only kind of evaluation that will yield sufficient answers to OHS problems. Thus, OHSMS have the potential of being used by different groups interested in the improvement of their own OHS conditions.

Instead of taking sides in this debate, the question addressed here concerns the effects of different institutional frameworks which are more likely to improve OHS performance or contribute to worse OHS problems. Are the implementation and functioning of OHSMS likely to differ among organisations and countries? How do different institutional environments shape constraints and opportunities for the implementation of OHSMS? Do new forms of organisation of work impact the way OHSMS function?

The relation between country norms and the existence and nature of management systems diffusion across country borders and their implementation can be examined by studying articles from countries that differ with respect to their norms of rationality and progress (Guillen, 1994; Kogut, 1991; Abrahamson, 1996). Taking an institutional perspective, these questions are discussed in this paper, and examples found in the literature are compared. It is argued that the successful implementation of OHSMS is highly dependent on the organisational templates that dominate in specific countries, and that this in turn is highly dependent on the institutional environment surrounding organisations. The main argument is that the institutional complementarities which can support a successful implementation of OHSMS are different when comparing liberal market and coordinate market economies. As a result, the differences in the predominant industrial relations regimes and the prevailing organisational paradigms among different societies ask for distinct institutional enforcements on OHSMS.

3 - Institutions and the search for legitimacy

All economic activity is embedded within a national institutional context of societal norms, rules and expectations which define socially acceptable economic behaviour (Zukin and DiMaggio, 1990). Because organisations are embedded in institutional orders, they must transmit signs of legitimacy and normalcy in order to maintain favourable terms with their constituencies (DiMaggio & Powell, 1983; Meyer & Rowan, 1977), they need to convince larger publics that they are legitimate, and they continually seek to enhance or protect their legitimacy (Scott, 2000) which is fundamental to extracting resources from their environment. Legitimacy increases the possibilities for survival. As a consequence, organisations tend to conform to the environmental prescription of what is regarded and defined as appropriate and efficient. They can, as a result, largely disregard the actual impact of organisational changes on organisational performance (Meyer and Rowan, 1977).

Successful firms are legitimated models and under conditions of uncertainty other organisations tend to imitate them, creating bandwagon effects (Abrahamson, 1996; Staw and Epstein, 2000; Schaefer, 2007). For example, the introduction of ISO standards has been seen as a necessity for business success without any proof that these standards can be or are met in reality.

Public interest groups, local communities, and occupational and professional associations are constituents of the institutional environment that delineate, diffuse or impose prevailing norms and requirements of acceptable company conduct (Meyer and Rowan, 1977). DiMaggio and Powell (1983) characterise three social processes through which organisations tend to become similar: mimetic isomorphism, a consequence of adopting the successful elements of other organisations when uncertain about alternatives; coercive isomorphism, resulting from pressures exerted on organisations by other organisations upon which they are dependent; and normative transmission of social facts, generally from external sources such as professions.

Institutions shape behaviour by constituting the set of acceptable interpretations and actions available to social actors. In the volatile new economy, actors continually deal with novel situations, and to craft responses, they base their choices of action on their set of existing understandings which are furnished by the institutional environment in which they are embedded. DiMaggio (1997) argues that actors make use of schemas to understand and to respond to new and old situations stimulus. Schemas are "*knowledge structures that represent objects or events and provide default assumptions about their characteristics, relationships, and entailments under conditions of incomplete information*" (DiMaggio, 1997: 269). Related to schemas, actors use scripts, which are direct individual action and understanding in highly particularised situations. Through these schemas actors read the situations and use scripts to respond to them. In the face of new situations, actors make use of their set of existing understandings (schemas) and translate their understandings into action (scripts).

Because firms have little available information and need to make suppositions about the actions of other firms, managers may decide to emulate the behaviour of leading companies in the industry without fully considering the potential effects and problems involved in that process. Hancke and Casper (1999) argued that mimetic isomorphism supports the adoption of certain quality standards, as for example, ISO 9000 but its impact can also enhance differentiation in distinctive institutional contexts (see also Walgenbach,2001; Guler et al. 2002). The adoption of a standard model was found to be even more dominant in later adopters (Westphal et al., 1997).

Organisations adopt structures mandated by the organisations on which they are resource dependent. Coercive forces for the diffusion of work environment management systems might come from the state which expects certification as part of the regulatory regime. Another source of coercive pressure is the relative position of the firm in international supply chains. The internationalisation of firms and the integration of supply chains often increases institutional and customer pressures on companies to surpass local social responsibility requirements (Christmann and Taylor, 2001). Firms adopting soft law regulations may be influenced by market forces and the fear of hostile consumer action (Gunnigham and Rees, 1997). Certification legitimises the firm in relation to their costumers. In multinational corporations the requirement can be made by the headquarters, mainly in American owned companies that seem more responsive to their local legislation and more afraid of legal action from trade unions and workers.

A source of normative pressure can be the high level of continuous education among workers, who become more conscious about their rights and the problems related to OHS. In periods of low unemployment, workers primarily look for jobs in firms which have an image of dealing well with work environment issues and working conditions.

The introduction of new practices is driven by the need to conform, rather than by the necessity to achieve superior objective performance. In this line, new managerial tools function as fashions, i.e. transitory beliefs that certain management techniques are at the forefront of management progress. As a consequence, their adoption can have quite undesirable effects for companies, employees and managers. Indeed there is research evidence that firms adopting new “fashions” achieve greater reputations but do not necessarily perform better (Staw and Epstein, 2000). The main argument is that as self-regulation is implemented in firms as a source of legitimacy, it just works when explicit sanctions are included, preventing opportunistic behaviour. Otherwise, companies, in an effort to send out a legitimised image, are likely to decouple stated practices from actual behaviours. Several examples can be found in the literature. Kostova and Roth (2002) showed that decoupling processes occurred in the context of quality management. Westphal and Zajac (2001) showed decoupling in the adoption of stock repurchase programmes. Kimerling (2001) suggests that decoupling is likely to occur in the adoption of ethics codes when external pressure for legitimacy is high. Gallagher et al. (2001) argued that the inappropriate use of audit tools (where they become an end in

themselves) are governed by misplaced management objectives and as a result there is a concern that OHSMS may end up as another 'failed fad'.

The introduction of new management systems has also been seen as a way of reaffirming control over workers (Knights and McCabe, 2000) or as a fashion-driven process that benefits only the consultants selling the new systems (Staw and Epstein, 2000). In a study of the chemical sector, King et. al (2005) argue that there is potential for opportunism to overcome the isomorphic pressures of even powerful self-regulatory institutions, and suggest that effective industry self-regulation is difficult to maintain without explicit sanctions.

Because firms embrace the system for conformity reasons, its adoption may have no - or negative - effects on working environment issues. Certification would function as a fashion, which is temporary and likely to present just superficial effects. Once adopted it will not actually be used outside relatively trivial management matters, or it will become just become another bureaucratic process which does not address the practical problems of OH.

Westphal and Zajac (2001) consider that it is surprising that relatively little research has been devoted to the phenomenon of organisational decoupling, given the importance of this to institutional theories. The phenomenon of decoupling, as proposed by Meyer and Rowan (1977), is the decoupling of formal legitimised structures from actual, ongoing practices in the organisation to buffer internal routines from external uncertainties. The next section deals with the strand of neo-institutionalism which plays special attention to the various national institutional frameworks and how they affect differently the same managerial template contributing or not towards decoupling.

3.1 – National institutions and managerial models

The historical neo-institutionalist approach treats social actors as acting within a framework of embedded economic relations, influenced by a particular set of national institutional arrangements (Hollingsworth and Boyer, 1997). Institutional arrangements as reflected in national legislation, the nature of property rights, and the nature of

educational and vocational systems shape the boundaries and possible paths for legitimate action. National institutions create the 'rules of the game' by which individuals and organisations operate, cooperate and compete. They forge the way in which organisations come into existence and the way they develop (North, 1990). Institutions represent shared, collective understandings or rules of conduct reflected in laws, governance mechanisms and the functioning of financial markets (North, 1990; Scott, 2001), which help to define observed patterns of market exchange (Fligstein 1996).

Governance systems and channels of co-decision-making are forged by a configuration of institutions involved in industrial relations, training systems, state interventions and financial intermediation (Whitley, 1999; Hollingsworth, 1997; Boyer, 2005). Thus, governance models present features – strengths and weaknesses – that are related to the institutions in which they are embedded. Institutional arrangements can both constrain and enable action by erecting barriers but also by creating opportunities for the development of employee participation and influence in decision-making.

The dominant practices of firms in relation to governance models, work systems, reward systems and employee relations complement each other, thus forming distinctive national configurations (cf. Whitley 1999). The education and training of managers and representatives are one of the most important institutional factors informing the behaviour of firms. Linked to the formation and training of managers are the governance models that different societies have developed (Whitley, 1999). Hall and Soskice, (2001) characterise two main ideal types of capitalist economies: liberal market and co-ordinated market economies.

Nordic countries are examples of co-ordinated market economies (Hall and Soskice, 2001), where, among other features, participation in decision-making has been an important component of national industrial regimes. These business systems are typified by a strong trade union movement and a tradition of co-operation between labour-market actors. In Germany, strong unions that prevent numerical flexibility strategies in the labour market are likely to encourage cooperation to improve quality and incremental innovations as they restrict price-based competition. Linked to the strength of trade unions is the public support for a high quality and highly regarded training system and strong incentives for individuals and employers continuously to improve their technical

skills. In Denmark an agreement establishing co-operation committees was established as early as 1947 by the labour movement and the private employers' associations. Even in highly Tayloristic industries, which historically have been characterised by strong adversarial relations, Danish companies are moving towards greater co-operation and trust between management and labour (see Hasle and Møller, 2007: 425). Trade union representatives have the legal right to a seat on the board and have easy access to top management. By having a seat in the co-operation committees, they are able to influence corporate strategy and development. These institutional features are likely to reduce the propensity for firms to pursue strategies downplaying workers' interests.

An important - if not the most important - characteristic of the Scandinavian model in recent years has been the ability of workers to upgrade their skills through continuous training, not only during periods of unemployment, but also at different stages in their careers. For instance, Danish workers do not necessarily expect to stay for long periods of time, and seldom for their whole working lives, in the same organisation. What employees expect from their employers is support to upgrade skills which can be applied in current or future jobs. Danish trade unions are strongly involved in the governance of vocational and further training institutions (Kristensen and Rocha, 2007), which need to be co-ordinated locally by networks among convenors and shop stewards in different firms, who in this way become important gatekeepers of the system.

Liberal market economies (LME) present a strong anti-union tradition and a weak tendency for the participation of the workforce in decision-making. The literature points to several examples of American firms presenting anti-union policies and even attempting to transfer these to their subsidiaries abroad (Muller, 1998; Ferner et al., 2005). The liberal model of corporate governance assumes norms of self-interest, opportunism and enforced compliance (Lubatkin et al., 2005: 883). Increasing shareholder value is an important driver of senior management decision-making in American companies (Froud et al., 2000; Williams, 2000). Learning and skills upgrades are an individual responsibility, and in general these countries are characterised by a very weak vocational system. The capabilities of different firms are internalised and they are less dependent on their environments than firms in co-ordinated market economies. With regard to industrial relations, trade unions are generally weak at workplace level. In the UK the shareholder value ideology, combined with a liberal framework of

employment regulation, provides for a pattern of corporate governance and restructuring that is primarily determined by shareholders at the expense of employees (Almont et al., 2003: 437). Even the new European regulations concerning employee rights on information have not fundamentally changed the features of the British system, which does not encompass the co-determination or joint decision-making which are the main features of the German and Nordic industrial relations systems and corporate governance models. The relations between economic actors in LME are characterised as 'arms length', contrary to the economic relations in CME which link the destinies of different social actors.

If we accept the idea that different institutional environments constrain and enable social actors in varying ways, what are the consequences for the way firms implement different managerial templates? This is an important question when dealing with a certified management system which is diffused across boundaries: we can expect that the translation of this will be shaped differently according to the national context and not only by organisational capabilities. The role of the state institutions and certification bodies are of fundamental importance in avoiding or enabling processes of decoupling, since their intervention can monitor the way firms deal with OHS issues, or fail to do so. In the next section we analyse the different institutional factors which impact the implementation of OHSMS: the state, the enforcement agents, the dominant organisational templates. The next section deals with the role of enforcement and assessment agents.

4 – The role of Enforcement agents

OHSMS specify the requirements for an organisation to control its OHS risks and to improve its performance. However, OHSMS does not set out specific OHS performance criteria, nor does it give detailed specifications for the design of a management system. The main idea is that OHSMS may be applicable to any organisation that seeks to establish a management system in order to minimise risks. Organisations also have to implement, maintain, and continually improve their management systems which are evaluated annually by state-accredited certification bodies. This means that the state has audited their competency to assess and certify companies using the national standard and

methodologies. Only those certification bodies authorised by the state can conduct OHSMS assessments.

When these private certification bodies are able to freely determine the specific requirements and procedures imposed on firms seeking to become certified, different acceptable levels for attaining and retaining the certification are likely to emerge. Consequently, different certification bodies can present quite distinct standards of quality and exigencies. In other words, companies which do not present high levels of reliability on their OHSMS can move to less demanding certification bodies. The result of this will depend on different coalitions that might emerge among the different stake holders involved in this process: the state, the certification body, the firm, and the workers represented by their unions.

Gunnigham and Rees (1997) argue that “there is no clear dichotomy between self-regulation on the one hand and government regulation on the other. Rather, there is a continuum, with pure forms of self-regulation and government regulation at opposite ends. However, those pure forms are rarely found in the real world, in which distinctions between self-regulation and government regulation are incremental rather than dichotomous” (ibid:366). Self regulation implies external enforcement as a last option (Dawson et. al, 1998). Thus, the growth in the use of management systems leads to questions about what the role that government should play will be and how it should be able to co-ordinate the public inspection of the OHSMS.

Rees (1988) identifies three forms of self-regulation: voluntary, mandated full and mandated partial. The first one does not resemble the characteristics of the certification of OHSMS because it pictures rule making and enforcement as both carried out privately by the firm or industry itself, independent of direct government involvement. The two other forms are distinct in the level of the state involvement in rule making and enforcement. In mandated full self-regulation, rule making and enforcement are privatised, and the private regulatory programme is officially sanctioned by the government, which also monitors it and can take the necessary steps to ensure its effectiveness. Mandated partial self-regulation limits privatisation to either regulatory function, but not both. Thus, the effectiveness of OHSMS will be highly impacted by the roles the state plays in different societies and how other collective actors are constrained

to act upon the certification process and their demands linked to it. Complementary to that will be the capacity for self-regulation of firms as the next sections shows.

5 - Capacity for Self-regulation

In working toward compliance with OHSMS objectives and the requirements of certification, different institutional actors need to interact and may be able to improve their methods of interaction and communication. Information about each other's daily routines, production methods and norms can be exchanged in a prolonged learning process. Within this, the organisational actors involved might learn from their counterparts the limits for improvement of OHSMS and evaluate how they can help each other to overcome these.

Already in the process of consultation towards certification, both management and consulting firms gain a much better idea of what is taking place on the shop floor, and firms might gain more insight on what exactly is expected from them and how they should act upon the various requirements. In the new regulatory approach, it seems fundamental to foster the already existing democratic structures and procedures in companies in order to strengthen business learning capacity and reflexive processes.

But we should not forget that the OHSMS are quite undefined in how they should function and how the different parts of the systems should interrelate, perhaps with insufficient control mechanisms, leading to high performance companies performing better, while poorly performing ones fare worse. The system is built on the idea that firms intend to improve their OHS conditions, and that the capabilities for that can be found, and that local institutions are able to provide the necessary help. But if local institutions are not helpful or if other more powerful actors monopolise institutional resources (human resources, training, etc.) it may create a vicious circle for small and less powerful companies. In order to minimise the possibilities of failure, it may be necessary, in some countries, to increase the social visibility of firms, for example, by introducing "right-to-know" provisions on behalf of trade unions. The external factors that are likely to influence the diffusion and successful implementation of OHSMS have been presented thus far in this article; in the next section the focus is placed on the links

between institutional support for continuous training and the organisational processes of joint action-voice that influence the successful implementation of OHSMS.

6– Training and joint action-voice - Contrasting Cases

During the last decade, several studies have confirmed the argument that more effective health and safety committees are those where both employee representatives and management have been trained and where representation operates through established trade union channels (Walters, 1996; James and Walters, 2002). Reilly *et al.* (1995) showed that injury rates tend to be highest in workplaces where there is a unilateral determination of health and safety by management, and lowest where mechanisms of union-based representation are present. Consultative committees with all employees' representatives appointed by unions reduce workplace injuries relative to those establishments where management alone determines health and safety arrangements (Eaton and Nocerino, 2000).

Dawson, et al. (1988) investigated in a comprehensive study the nature and effect of the Health and Safety at Work Act in Britain. They argued that an effective self-regulation requires people at work to be actively involved in the identification of hazards, the prescription and implementation of controls, and the maintenance and monitoring of standards and activities. Three elements are identified as crucial: knowledge, capacity, and motivation. They observed that the involvement of the work force representatives is critical. The study's overall conclusion is that self-regulation of safety and health has clear limits. In their British cases, the success of self-regulation seems to be strongly dependent on economic conditions, the structure of industry and employment (small-firm size, subcontracting, or the increase in part-time and temporary employment), and changes in trade union organisation (declining levels of union membership). Walters and Nichols (2006) found an alarming low level of arrangements allowing consultation and representation to occur meaningfully across all their case studies in Britain. Worker representation and consultation were quite severely constrained in delivering their potential beneficial effects in some of the workplaces (*ibid*: 248).

Gustavsen and Hunnius (1981) found that in Norway the operation of direct forms of involvement in health and safety was strongly influenced by the broader patterns of employer–worker relations within which they took place. An interesting finding which differs from most of the Anglo-Saxon literature points to the fact that skilled workers were better able than unskilled ones to convince management to invest in health and safety improvements. They pointed to the centrality of skilled workers to the production process and their experience in recognising and resolving problems as a facilitator to this process. They further found that workplace trade union representatives played a crucial role in mobilising these sources of worker influence into a ‘joint action-voice’. Frick and Walters (1998) found that in small enterprises in Sweden, regional safety representatives (RSRs) were generally well trained and very experienced. All of them had completed a basic health and safety training course for union health and safety representatives as well as several follow-on courses. RSRs generally considered they enjoyed a reasonable level of cooperation with employers in small enterprises. Swedish and Danish law gives employees the right to appoint local safety representatives in workplaces with as few as five employees.

The process of certification involves a number of actors from different organisational layers, but an important factor for the involvement of those actors is the improvement of their skills to deal with OHS issues. A number of studies related to changes in production processes indicate that training is a key support for continuous improvement, and this is also the case for occupational health and safety (Eaton and Nocerino, 2000; Frick and Walters, 1998;). It follows that resources invested in training of health and safety representatives and other workers are likely to produce significant benefits in terms of a reduction of injuries and ill-health and the economic costs associated with them. Injury rates tend to be highest in workplaces where there is a unilateral determination of health and safety by management and lowest where mechanisms of union-based representation are present (Reilly *et al.*,1995).

In Denmark, due to the amplitude of the Danish vocational and educational systems which support continuous upgrade of skills for the labour force, both unemployed and employed, workers are able to attend courses related to OHS. For example, a new vocational programme (industrial operator) for special workers incorporates working environment, health and safety issues and research projects related to these subjects into

the educational programme (Rocha, 2006). More recently, special workers (not only skilled ones) have been gaining more importance in the production process and have, because of the continuous upgrading of skills, enlarged their area of expertise and experience, becoming able to recognise and resolve a diversity of production problems. They can also influence management to invest in improvements in health and safety. But because the blue collar workers are also more central to production processes, management are more in need of catering to the workforce.

Similar to the claims of Gustavsen and Hunnius (1981), workplace representatives in Denmark play a central role in mobilising sources of worker influence into a 'joint action-voice' (Kristensen and Rocha, 2007; Hasle and Møller, 2007). These characteristics may differentiate the Scandinavian countries from most countries in Europe: higher level of education of the workforce, flatter organisational structures, strong influence in corporate governance and blurred organisational boundaries, making workers more able, and management more receptive to contributing to the improvement of the production process. In Scandinavia OHSMS can partly be interpreted as a success (Frick et al., 2000:005). The results are rather different where the decline of trade union recognition leads to a decreasing number of workplaces and workers covered by the certification as in the case in Britain (James and Walters, 2002). As we shall discuss in the next section, the dominant organisational templates among European countries differ substantially and this also affects the implementation of OHSMS.

7 - The new organisational Paradigm

Another important change that is likely to affect the success of OHSMS is the new organisational paradigm which emphasises the goals of collective learning, continuous improvement and innovation based on co-operative relations. March (1999) argues that "organizations pursue intelligence. In that pursuit, they process information, formulate plans and aspirations, interpret environments, generate strategies and decisions, monitor experiences and learn from them, and imitate others as they do the same" (p. 1).

New forms of organisational deliberation are replacing the expert-dominated, top down model of administration with a deliberative model that brings competing interests together in a dialogical situation aimed at creating mutually satisfactory solutions (Helper

et al.,1999). The new paradigm requires workers to have autonomy over their job tasks, to participate in self-directed teams, to be part of problem-solving and other offline teams, and to regularly communicate with employees outside their work groups (Appelbaum et al. 2000). In short, new forms of participation uproot at a very fundamental level the previous governance regime. These changes involve a move away from traditional forms of work floor organisation and control.

Lorenz and Valeyre (2005) compared the different forms of work organisation among the 15 European countries. They found four different clusters of work organisation which are characterised as learning, lean, Taylorism and traditional. Learning organisation are characterised by the over-representation of the variables measuring autonomy and task complexity, learning and problem-solving and to a lesser degree by an over-representation of the variable measuring individual responsibility for quality management. The variables reflecting monotony, repetitiveness and work rate constraints are under-represented. The lean model is characterised by an over-representation of team work and job rotation, the quality management variables and the various factors constraining work pace. Lean management displays strong learning dynamics and relies on employees' contributions to problem-solving. However, autonomy in work is relatively low and tight quantitative production norms are used to control employee effort. The characterisation of Taylorism is in general the opposite of that found in learning organisations, with minimal learning dynamics, low complexity, low autonomy and an over-representation of the variables measuring constraints on the pace of work. Traditional forms of work organisation are poorly described by the work organisation variables which, with the exception of monotony in work, are all under-represented. This class presumably groups simple forms of work organisation where methods are for the most part informal and non-codified. (ibid:429-430)

The changes in working organisation in Europe show an important new paradigm emerging. Kochan and Osterman (1994) stress the "mutual gains" term of the new organisational forms: for them, competitive advantages are linked to specific conditions of co-operation between organisational stakeholders which imply win-win situations, and support participation. In the previous organisational paradigm the whole person was not required, only particular aspects of the individual necessary for effective performance. This old emphasis on partial inclusion, which also means partial exclusion,

has been altered. This can benefit workers who become more integrated in the decision-making process.

Lorenz and Valeyre (2005:435) found that in 2000 on average in the EU-15 countries only 13.6% of employees said they were working under conditions that could be characterised as Taylorist, while 28.2 worked under Lean- and 39.1% under a Learning form of work organisation. The research also demonstrates important differences among European countries concerning the predominant organisational models in different countries. Denmark, Holland and Sweden presented the highest percentage of organisations characterised as learning forms. Not less than 64% of Dutch and 60% of Danish employees work in learning organisations. The Nordic countries present a much higher percentage of learning organisation in Europe, all of them above the European average. The countries characterised as liberal market economies (the United Kingdom and Ireland) present a percentage of learning organisations below the Europe average. South European countries present a high percentage of employees working in Taylorist forms of organisations.

One important new feature introduced with OHSMS is the possibility of benchmarking the results achieved. The control of the development in the number of injuries and absence for sickness is able to show how various departments or firms with similar technologies and processes are performing quite differently in relation to OHS issues. As the certification of OHSMS requires several organisational meetings of actors involved with the OHS issues, when problems are discussed and solutions are pursued through a process of negotiations, these negotiations are likely to become dynamic processes, and they will not end when agreements are reached, or rules and norms re-created. The agreements need to become the subject for future negotiations depending on the results achieved. As market conditions are volatile and innovation more necessary, new production problems always emerge and must be solved and continuous negotiations are necessary. All these changes affect OHS issues, which cannot be easily treated in a command and control type of organisation which predominated in the past. The norms need to be continually worked out, the greater flexibility and possibility of tailoring solutions to different needs of the groups involved, resulting in a wider variety of solutions.

We can expect that these easier processes of learning and improving OHS performance are more likely to take place in institutional environments where industrial relations are co-operative, learning forms of organisations are predominant, and continuous upgrading of skills more widespread. As a result, the functioning of OHSMS and the mechanisms of enforcement will necessarily present different complementarities within each institutional framework. Whereas organisational learning takes place at the collective rather than the individual company level, what individual firms learn will be transformed to a collective knowledge base. Thus, knowledge is acquired and exchanged between individual firms, the network of companies, and at different organisational levels. As exposed above, firms in CME are more dependent on each other; learning is likely to take place at both individual and collective levels. Learning at the collective level is less likely to occur in environments where 'arms length' relations predominate.

8 - Discussion

In spite of the fact that we recognise the strong influence of institutional mechanisms in shaping the diffusion of new practices, there is a need to elaborate on how these practices are constructed by the interplay among the different organisational groups under different organisational forms.

We believe that OHSMS are not necessarily as insubstantial as some other managerial fashions. By taking charge of the implementation, organisational actors will be able to start 'collective searches' or "collective experiments" for new techniques which can help them to 'respond to organizational performance gaps opened up by real technical and economic environmental changes' (Abrahamson 1996: 255) serving as a technical learning process for organisations. Organisational actors may use the implementation of OHSMS to trigger learning of organisational processes.

If the certification process spreads through isomorphic pressures, i.e. a combination of coercion, mimetic and normative processes (DiMaggio and Powell, 1983), its diffusion might open new possibilities for variation in different institutional environments. Organisational actors mostly affected by the OHSMS by taking charge of the certification process are likely to influence how their companies will deal with health and safety conditions. And even though certification can be understood as a managerial fashion, it is

likely to trigger the formation of new organisational coalitions among different work groups which in turn can enable improvements in OHS performance.

The distinct national institutions enable and constrain nationally embedded firms in quite different ways (Whitley, 1999, Hall and Soskice, 2000); as a result nationally embedded firms are likely to translate and implement OHSMS with different results. In other words, organisational changes triggered by the implementation of OHSMS are path dependent. In liberal market economies, organisational actors are embedded in adversarial relations and thus are likely to translate and implement OHSMS differently from their counterparts located in coordinated market economies where cooperative industrial relations prevail. In liberal market economies, OHSMS have been introduced with a background of trade union retrenchment, and weak labour coalitions. In coordinated market economies, in spite of recent changes in industrial relations, participation of employees in decision-making is still strong and more likely to influence the implementation of OHSMS.

In a society which enables individuals to continually learn, and organisations that enable actors to participate, individuals are enabled to incorporate new understandings and develop new courses of possible action, and thus innovate in their responses to old and new stimuli. Otherwise, institutions would function as a cultural schemata, and have a quite deterministic function on actors' behaviour, leading always to the reproduction of old patterns. It would be no place for learning or strategising. The repertoire for interpretation of different situations and consequently for how to act is continually enlarged by learning.

The sustained popularity of certification (in terms of its uptake) and its success in several firms (in terms of improved performance) may be related to the fact that it includes a broad range of activities, many of which have become common organisational practices in different organisations over the last few years. For instance, an underlying premise of certification as a benchmarking process is that by understanding how exemplary performers achieve desirable outcomes, organisations can produce a better performance. For example, in our current research dealing with OHSMS, a manager insisted that his organisation would only be part of the research if other comparable companies, in size and production technologies, were involved, because in this way, his company could gain

access to new experiences and information about how other companies had effectively improved OHS performance. The manager knew that a company in his region (which was not a competitor) had been quite successful in using systematisation of information related to “near accidents” to reduce the number of real accidents. His specific requirement was based on the assumption that understanding how other companies perform similar processes would make it possible for him to learn from experiments and contexts outside his usual frame of reference.

On the one hand, the diffusion and adoption of OHSMS can be better explained by the search for legitimacy. On the other, improvements in OHS performance as a consequence of adopting OHSMS may have an impact on the organisation’s internal legitimacy. This in turn may trigger a continuous organisational learning process on how to improve OHS performance. OHSMS decentralise control of work environment issues to the work place level. As a result, their implementation will legitimise other modes of knowledge and practice in how to deal with working environment problems which are not defined from a top-down perspective. The OHSMS open up possibilities for participation of the workforce in what and how working environment issues should be addressed.

The implementation of OHSMS in learning organisations is likely to trigger organisational processes of searching for new solutions, and through these processes organisations might change in different ways. The idea of employee participation in OHSMS enables organisational actors to experiment with new routines and standard operating procedures. The certification has the potential of activating processes of organisational learning, in which workers start processing information that changes the range of the organisation’s potential behaviours (Huber,1991). As Sabel (2005:134) argues, by bringing searches to bear on its choice of strategy or goals, organisations can use the information generated by the lower-level exploration of possibilities to inform and discipline higher-level decisions.

Working, learning and innovating are interrelated and compatible within the new organisational paradigm. These processes are interlinked and are difficult to separate. Changes in the external environment, a more competitive market, alterations in technological paradigm, etc., have pushed organisations into a more volatile market, and

experimentation thus has become a new feature for organisations. Changes in product markets influence organisational templates and the strategies that companies may pursue, and volatile markets make firms more dependent on their employees' knowledge, a pattern that necessarily overcomes the previous command and control strategies. The new figuration emerging shows individuals who are continually gaining new knowledge, and organisations in a continuous search for new arrangements: these two are highly complementary to each other. It encapsulates a quite different way of organising, controlling and coordinating economic relations. It also complements a new balance of power among economic actors: employees will be more able to ask and search for improvement in their working conditions.

On the one hand, the adoption of OHSMS is positively affected by institutional isomorphic pressures. On the other, improvements in OHS performance are highly dependent on how local institutions enable and constrain organisational actors to influence the adoption and implementation of OHSMS. Thus, the success or failures of OHSMS are linked to local and national institutional factors surrounding its diffusion and implementation. It is interesting to observe that the Nordic countries lack what has been appointed, in liberal market economies, as factors undermining the effectiveness of worker representation in joint committees for OHS: declining union density, limited worker and management training and weak enforcement systems (Haynes, Boxall and Macky, 2005; Tucker, 1992; Storey and Tucker, 2006; Walters, 1996; Walters and Nichols, 2006). At the same time, the percentage of learning organisations are the highest in Europe among North European countries.

9 - Conclusions

It is not difficult to imagine that OHSMS can be placed in the realm of ethics. Firms are driven to become certified because they feel ethically responsible for the well being of their employees: this would be the use of ethic of responsibility. Firms can see the OHSMS as a means by which to be free from state surveillance, and at the same time attracting the best workers in the market and retaining their most valuable human resources as a way for improving productivity and competitiveness: that is an “ethic of ultimate ends”. Companies continually try to find a balance between these two ways of

reasoning and framing the working environment problems that they face. But, as this article has shown, how this balance is achieved is highly dependent on the institutional environment in which firms are embedded.

It is understandable that literature still treats OHSMS as a kind of fad, which is temporary and almost worthless, but this may be an unhelpful generalisation. When critics claim that OHSMS are just a new fashion, they forget to ask which social processes are triggered by these fashions and which permanent effects may be achieved with unintended consequences. Organisational fashions reflect the 'emergent collective preferences' of organisational groups in the search for new techniques which can function as a maps for learning organisational processes – provided that they appear both rational and progressive (Abrahamson, 1996). Whether such fashions have intrinsic value and validity when they start being diffused from their originators is less important than the characteristics they may develop when they are interpreted by organisational groups which interact during the process of accreditation and beyond. If one takes into consideration the concept of continuous improvement that has driven the quality movement since the 1980s, the idea of accreditation as a benchmark process makes more sense, and at the same time it runs counter to the possibility of arriving at an absolute standard of 'the best legitimised practice'.

OHSMS can function as the 1980s' JIT (just-in-time) inventory movement, which replaced the classic approaches to inventory. It was and still is a difficult task to rethink and rebuild organisations for using JIT, but it is hard to find one not trying hard to implement it. The successful implementation of OHSMS is demanding on individuals and organisations: it requires sustained partnership, extensive training and support, and organisational receptivity to change. However, as shown in this article, the institutional features supporting these conditions are not to be found evenly in different countries; consequently, in order to improve the performance of OHS indicators in firms, the ways in which OHSMS and the necessary enforcements mechanisms need to be combined will also differ. As shown in this article, the ability of employees to affect OHSMS is dependent on the institutional framework in which firms are embedded. It is also demonstrated here that there are linkages between industrial relations systems and organisational forms on the one hand and the capacity for self-regulation on the other. This is a central part of Hall and Soskice's notion of 'institutional complementarities';

'nations with a particular type of co-ordination in one sphere of the economy should tend to develop complementary practices in other spheres as well' (2001: 18).

Most research dealing with OHSMS has been single country focused: future research should overcome this limitation in research design, replacing it with a cross-country comparative methodology, looking to the ways comparable firms in the same sector and industry implement OHSMS in different countries and their resulting effectiveness. This would shed light on the necessary mechanisms of enforcement which need to be designed in different institutional frameworks to cope with varying organisational templates and different national industrial relation systems.

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