



## The main benefits associated with health and safety management systems certification in Portuguese small and medium enterprises post quality management system certification

Gilberto Santos<sup>a,\*</sup>, Síría Barros<sup>a</sup>, Fátima Mendes<sup>b</sup>, Nuno Lopes<sup>a</sup>

<sup>a</sup> *Escola Superior de Tecnologia, Polytechnic Cavado e Ave, Barcelos, Portugal*

<sup>b</sup> *University of Minho, Guimarães, Portugal*

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### ABSTRACT

The purpose of this study is to characterize how Portuguese Small and Medium Enterprises (SMEs) view the Occupational Health and Safety Management Systems (OHSMSs) certification process, after receiving the Quality Management System (QMS) certification. References were based on the ISO 9001 standard for a QMS and OHSAS 18001 for OHSMS.

The method used to evaluate the implemented systems, was by form of questionnaire. Those questioned had to have a certified quality management system, an implemented OHSMS and be a SME. The questionnaire was sent to 300 SMEs; 46 responses were received and validated. Of them, only 12 SMEs had the OHSMS certificate according to OHSAS 18001. Within those 12 companies that participated: 7 SMEs are from the industrial sector; 3 belong to the electricity/telecommunications sector and 2 SMEs are from the trade/services activity sector.

The size of the sample was small, but corresponds to Portuguese reality. Moreover, 34 SMEs did not have the OHSMS certificate. The questionnaire requested the main reasons for SMEs to opt for non-certification and it was related with high costs, while the main reasons to certificate were, among others, needed to eliminate or minimize risks to workers.

The main benefits that Portuguese SMEs have gained from the referred certifications have been, improved working conditions, ensuring compliance with legislation and better internal communication about risks and hazards. Also presented are the main difficulties in achieving an OHSMS certification including high certification costs, difficulties motivating personnel, difficulties in changing the company's culture and increased bureaucracy.

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### 1. Introduction

The OHSMS (Occupational, Health and Safety Management System) provides a set of tools that enhance safety risk management efficiency related to all the organization's work activities. This system should be considered as part of the management systems of any organization (Santos et al., 2008). Moreover, according to Granerud and Rocha (2011) the OHSMS is a systematic means for employers to handle challenges and reduce haphazard attitudes to risks and problems in the work environment. OHSMS certification makes it possible for firms to document a certain pattern of working conditions to demonstrate to both the public at large and its own customers that they are living up to established production standards.

On the other hand, also according Granerud and Rocha (2011), the OHSMS certification is a form of soft regulation requiring the company to fulfil certain legal obligations, as well as engage in organizational processes to promote the continuous improvement of health and safety conditions. The OHSMS certification itself liberates companies from direct public control and can thus be regarded as a self-regulatory regime. Furthermore, in recent years, these systems have further developed, so that now companies can have their management systems certified. This development is consistent with the demand of external accountability in other areas, initially exemplified by the ISO 9001 quality standard developed in the early 1990s (Power, 2008). The ISO 9000 series is a set of international quality management standards and guidelines. Since the initial publication in 1987, the standards have gained a global reputation and due to their generic nature have wide ranges of application fields in different branches of industry (Celik, 2009). Thus, both ISO 9001 and later standards in other fields are characterized by the establishment of an internal systems of regulation

\* Corresponding author. Tel.: +351 258802260.

E-mail address: [gsantos@ipca.pt](mailto:gsantos@ipca.pt) (G. Santos).

and control within companies; systems that are certified and audited by external auditing agents (Hohnen and Hasle, 2011). Additionally, regulations based on ISO 9000 have been created to guide companies in developing systems for management and prevention of worker risks. Annexes A and B of ISO 9001–2000 give various clauses and sub-clauses related to the necessary elements of this standard (Vinodkumar and Bhasi, 2011).

Due to this, certified management systems are increasingly being used by enterprises to document and develop conformance in a variety of different areas. Within the past decade, the application of certification has spread from documenting quality standards to additional areas, including the management of occupational health and safety (OHS) (Granerud and Rocha, 2011). Thus, according to Fernández-Muñiz et al. (2007), several fields are showing increasing interest in safety culture as a means of reducing accidents in the workplace. Literature shows that safety culture is a multidimensional concept; signifying that nowadays, companies which desire greater profitability and better organization implement the quality systems. Their aim being a reduction of defective products and lost time, as well as, striving for customer satisfaction and excellence.

The progressive implementation of ideas and techniques related with quality management is one of the clearest demonstrations of organizational innovation in the industry in the last few decades. From the standpoint of risk prevention literature, it has been argued that the use of advanced quality management systems has helped reduce accident rates due to the fact that quality management methods are based on the principle of prevention rather than corrective actions. Hence, the concept of an OHSMS has become common over the past 20 years (Robson et al., 2007). The people that work in safety management and at the same time are members of quality teams, assure that quality management goes hand-in-hand with risk management. The actions that are carried out to achieve quality are the same actions necessary, for example, to achieve effective risk management (Herrero et al., 2002). In line with this, OHSAS 18001 has become compatible with the ISO 9001. This means compliance requirements for OHSAS 18001 are similar to those for ISO 9001. Though, the fact is OHSAS 18001 is an occupational health and safety reference, whereas ISO 9001 is a quality management standard (Vinodkumar and Bhasi, 2011). Hence, if the aim of achieving quality is to remove deviations in the production process, it is clear that the occurrence of an accident is an unforeseen and undesirable situation. Thus, the implementation of quality control mechanisms is intended to reduce failures in the system, including workplace accidents (Arocena et al., 2008).

For this and other reasons, the study's questionnaire was sent only to the companies that had their QMS (Quality Management System) certified. If the history of quality management is analyzed, one can observe that the concept of quality evolves from quality control to quality assurance. In quality assurance, the planning and company culture are directed with the client and the end product in mind. In terms of safety, the workers and managers of the company are the clients and safety is the product (absence of injuries and illnesses) (Roberge, 1999). In line with this, if the evolution of quality management is analyzed, the results should show that three stages exist: (a) quality control, (b) quality assurance, and (c) total quality. If the same analysis is carried out for the safety management system, three similar stages would be found: (a) safety control, (b) safety assurance or guarantee, and (c) total safety (Herrero et al., 2002). Considering the increase in industrial accidents and loss of life, material and environmental issues, more and more organizations are voluntarily embracing management system certifications. These management system certifications are expected to integrate safety management with the rest of the functions of the organization (Vinodkumar and Bhasi, 2011). Further, it would be expected that the joint use of advanced quality

management techniques and innovative occupational risk prevention management would generate some synergetic effect in reducing occupational risk. However, companies need a peaceful and healthy working environment, protecting their assets from accidents, illnesses or discomfort in the workplace. Choudhry et al. (2007) considers that an organization is a safety culture in which safety is regarded as being an issue that concerns everyone. As a result, safety rules should be understood and adhered to; all incidents must be reported and investigated quickly for actions to be taken, and to increase learning. "Changing or new work environment" is a broad term covering new trends in work environments (Koukoulaki, 2010). In the 1980s, researchers suggested that the increasing importance of small enterprises indicated the beginning of a new era for industrial production in which the industry would break away from the dehumanising effects of Fordism and Taylorism (Piore and Sabel, 1984). On the other hand, in the past few decades a fundamental need has grown for change regarding safety control in the process industries sector (Knegtering and Pasman, 2009). Due to this, and considering the increase in industrial accidents and loss to life, material and environmental issues, more and more organizations are voluntarily embracing management system certifications (Vinodkumar and Bhasi, 2011).

The majority of studies find that small enterprises have an increased risk of accidents compared to large enterprises (Sørensen et al., 2007). According to the European Agency for Safety and Health at Work (2002), "Changing Work World" issues can be summarized as new work organizational forms, new contractual relationships, use of work time, new technologies, changes to the workforce, and changes in occupational health and safety systems. Trained and experienced workers who die or become injured result in disruptions to work progress and undeniably represent a reduction in construction, or industry performance. Nonetheless, difficulties may arise when researchers use different techniques to measure safety performance. Traditional measures of safety performance rely on some form of accident or injury data. Another technique is behavior sampling, which requires one or more trained observers to observe workers on-site to determine whether they are working safely or unsafely (Choudhry et al., 2007). Moreover, human resources are the most valuable resource of any company or country, but not always the most valued. Thus, the greatest asset of any organization, any region or any country, are people and their know-how (Santos et al., 2011).

It is important to know that helping organizations continually tackle occupational safety and health challenges and improving factors which influence health and safety, safety management systems (SMSs) have recently resulted in increasing diffusion between companies (Bottani et al., 2009). But the major shortcoming with most of the safety culture models is their failure to integrate into general models of organizational culture (Choudhry et al., 2007). Consequently, to achieve excellence in prevention, safety must be integrated into all the organization's decisions and actions. The focus of prevention must be more organizational and strategic than material, given the important role the human component plays in the causal chain of workplace accidents (Fernández-Muñiz et al., 2009).

According to Vassie and Cox (1998), the main reasons for interest in a safety scheme by SMEs are the desire to improve or ensure the health and safety of employees, and to raise awareness across the organization. Thus, according to Vinodkumar and Bhasi (2011), analysis of his study's data revealed that employees in companies with OHSAS 18001, ISO 9001 and no certification at all perceive the safety variables from different levels. OHSAS 18001 certified organizations are significantly higher compared with the others. In Portugal, only a few companies have an OHSMS implemented after QMS certification and, among them, only a small percentage has a OSHAS 18001 certified system. On the contrary, a large number

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