

SAFETY MANAGEMENT SYSTEM: THE ITALIAN PATTERN

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1. INTRODUCTION

According to OHSAS 18001 (1), the Occupational Health and Safety Management System – OHSMS – is that part of the global management system which facilitates the management of occupational health and safety risks in association with the organisation's field of business. According to this definition, the management of health and safety risks is not only an element which is deeply connected to the management of the organisation as a whole but is influenced by and capable of affecting a business's results.

The treatment of the subject which follows attempts to understand the reasons behind this affirmation which is corroborated by accident and occupational illness data, by resulting social and economic costs, by the division of these costs between the various people involved in the workplace and society, and by managerial approaches recognised as models and principles by the International Organization for Standardization (ISO).

This document will also investigate the reasons why, in spite of advantages in terms of cost reduction and increased competitive opportunities, organisations have difficulty following such managerial models which deal with, but not limited to safety. In addition, it will examine the support and actions provided by public organisations, and in particular INAIL, which has carried out and is in the process of developing and encouraging a new occupational health and safety culture based upon managerial approaches.

2. ACCIDENTS AND PROFESSIONAL ILLNESSES AND THE BUSINESS COSTS

According to data provided by the International Labour Organisation – ILO – each year throughout the world, there are 270 million accidents in the workplace, of which at least 350,000 are mortal, and 160 million cases of occupational illnesses which lead to the death of over 1.7 million people (2). ILO itself, which estimates economic losses of over 4% of the world's GDP due to this phenomenon, declares that this data should be considered as extremely conservative, given the difficulty of identifying and collecting information regarding this extremely serious phenomenon in many developing countries.

According to data published by the European Community in 2004 (3), an average of 5,200 people die at the workplace each year in Europe, with the total yearly number of injuries close to 4.5 million, and approximately 14% of workers suffer more than one injury per year. The amount of working days lost amounts annually to approx. 158 million. The total estimated cost is between 2.5 and 3.8% of the European Community's Gross Domestic Product.

In a study carried out in 1996 (4) by the Health and Safety Executive – HSE – it was estimated that the total cost of injuries and accidents in the United Kingdom amounted to between 5 and 10% of the GDP.

On average, INAIL in Italy receives 2500 injury claims from the workplace each day, of which 3 or 4 result in the death of the worker. More than 16.5 million working days are lost each year, whilst occupational disease claims numbers approximating 25,000 (2) on a yearly basis. The total economic cost is estimated at more than 28.4 billion euro, approx. 3% of Italy's GDP (5) (6) (8) (9).

Out of this huge sum, only about 20% is covered by insurance costs through INAIL in compensation for physical damages sustained by injured workers (8) (9). In the United Kingdom, the HSE estimated that in 1996, the costs not covered by insurance were between 8 and 36 times greater than those covered by insurance (4). In fact, in 2004 the European Community spoke of the "iceberg effect" of occupational health and safety costs (3), hypothesising that the hidden costs were 11 times greater than the direct costs.

3. SPREADING OF BUSINESS COSTS AND OPPORTUNITIES FOR ORGANISATIONS

The reason behind the "submersion" of the majority of costs incurred in the phenomenon of injuries and occupational diseases can be explained by the fact that there is such a large number of subjects involved within the business context who sustain, sometimes unwittingly, a part of such a huge global figure.

These subjects include the injured workers and their families, the insurance companies and bodies, such as INAIL in Italy, the national health system, the organisations in which the injury occurred, its clients and other organisations connected with the company, such as suppliers (10).

In this context, the spread of the costs connected with the injuries and occupational diseases amongst the above subjects, is neither equal nor uniform, but varies according to the country and situation, individual events and to their total whole effect. However in Europe, it has been estimated that between 45 and 60% of the above costs are directly sustained by organisations which in turn only partially manage to cover these and connected financial expenses by recourse to insurance organisations (10).

The costs incurred by the organisation may be divided into the following (5), (6), (7), (8), (10):

1. **DIRECT COSTS:** loss of production, damages to structure and machinery, training for substitute personnel, overtime necessary to make up for production losses, increases in insurance premiums, legal costs, franchise costs,
2. **INDIRECT COSTS:** damage to company image, client dissatisfaction, reduction in staff and personnel morale.

The above costs are not taken into account by organisations, which are usually unaware of their implications. From the above, it appears obvious that preventing occupational health and safety risks is without doubt a strategically important factor for an organisation, both because of the influence it can have on business and internal efficiency (direct costs), as well as the potential consequences for the organisation's market and more generally on its clients and workers (indirect costs) with possible repercussions also on financial institutions etc.

In addition, the above gives weight to the assumption that safety levels are affected by the same factors which determine the "competitiveness" of an organisation, such as: organisational model adopted, personnel's training level, motivation and involvement of personnel, technological level and efficiency of systems, machinery, equipment, work methods, continual monitoring of the organisation and verification of results achieved.

Consequently, acting upon these factors in order to reduce occupational health and safety risks means improving the company's capacity to compete in the market (5) (6) (7) (8) (9). For all of the above reasons, organisations must align production and competitive needs with those of preventing, organising and enabling the safeguard of health and safety at the workplace in an integral way within the general organisational model and structure.

In this way, the organisation will best develop its own resources and receive a series of benefits, which can be briefly listed below (6) (9): improvement of the efficiency and effectiveness of the productive processes, improvement of the "quality" of products/services carried out, reduction of the environmental impact of production (reduction in waste and emissions, etc), optimisation of resources needed to adhere to norms in force, reduction in the amount of working hours lost through illness and injury, reduction in structural damage, damage to machinery or loss of production resulting from accidents, greater morale of personnel and greater loyalty to organisation, greater self-awareness of issues linked to prevention of injury and accident risks, reduction of problems linked to controls by security organisations, creation of a "responsible" organisation image.

The legislative decree 626/94 which introduced the European Directive 89/391/CEE and successive modifications thereof also requests that organisations take responsibility for the management of their own hygiene, health and safety at the workplace.

It is quite intuitive that the activities and type of organisation requested by the 89/391 directive cannot be imposed by the decision making and general management departments of an organisation, since apart from provoking a lack of efficiency in internal prevention activity, this becomes a burden in terms of time, money and resources (6) (9).

In order to realise these positive working conditions the organisations must overcome passiveness, becoming more reactive towards legislative impositions, and look forward to developing a proactive approach, as they have, or should have, towards the market in which they operate.

4. SAFETY, ECONOMIC CYCLES, TECHNOLOGICAL INNOVATION AND NEED FOR NEW MODELS

In 2001, the European Research Centre and INAIL published an interesting pamphlet entitled: "Modernisation of productive processes and emergence of business costs". From this detailed document, two aspects (11) are particularly relevant to industry:

1. there is no long-term relation between the progress of economic cycles and the frequency of rate of accidents;
2. the rate of technological innovation, measured in terms of investments in research and development per employee, has an inverse trend to that of the accident frequency rates.

On this basis, one could argue that technological innovation has a fundamental role to play in lowering the phenomenon of injuries at the workplace. However, already from the mid 1980s, the accident frequency levels were decreasing, showing a tendency to flatten, until from the mid 1990s, there was even a slight countertendency. The CER-INAIL study (11) stopped in 2001. More recent data shows a slight reduction again in the frequency of injuries between 2002 and 2004, which however, should be considered as too slight to be considered stable and definitive (2).

On the basis of these observations, one could argue that technological innovation alone is not enough to further decrease the rate of accidents. However, it does appear to highlight the importance of introducing more focalised strategies concerning the "biological" (6) part of the organisation, that is, the human resources, in terms of developing skills and capabilities, increasing participation and involvement in the models used and in the participation in the decision-making processes of the organisation's management department.

This is also the basis on which directive 89/391 (Legisl. Decree 626/94) is founded, although the directive does not explicitly tell which methods should be used to connect the principles with management methods in order to concretely carry out integration with occupational health and safety within the overall management of the organisation. Decree 626 establishes points which it defines as objectives to be realised, but it does not tell how these are connected with economic and financial management, with purchasing policy, with human resource management and with the importance of client satisfaction. The reason for this, is that this is not, and should not be the purpose of the law. It is the job of the "employer", businessman or manager to read the text with management approaches in mind. To some extent, it is like a "join the dots" picture, in which the whole image does not emerge until all the numbers are joined up. Many companies have never joined up the spaces between the fixed points of the 626 decree and therefore have never understood the whole picture, instead treating the decree as a series of objectives to be reached, sometimes even to be avoided, considering the whole question of safety as an additional element of an institution, and one which does not pertain to the concreteness of work and its true execution. It should also be noted that the Decree 626 does not pay too much detail to the reality of small and medium-sized businesses (SMEs), which in fact represent the main body of the

Italian productive system, thereby facilitating the incomprehension of the inspirational lines and bases and leaving the company with a sense of incompleteness and frustration at being forced to do something which they do not understand and do not agree with, without even being sure that they have achieved it correctly, and at the same time fearing sanctions and punishments.

It seems that what is required is a new way of reading the decree, using well known principles in the world of management which may be adapted for relevance in the world of occupational health and safety and ideally, fully integrated into the overall management of organisations.

5. MANAGEMENT PRINCIPLES

Organisations, independently of their legal nature, should be viewed as open systems which interrelate with and may exchange elements with the environment in which they operate and on which they depend for their existence and survival. In other words, organisations, and in particular companies, must identify and take into consideration those elements which are representative of the environment in which they exist and operate, since they take entities from these elements, using them and transforming them in order to realise others, which they then give and provide, generating a sufficient value quota. These elements are the so-called interest bearers, the stakeholders in an organisation (6), and they can determine the degree of a company's success, if it produces income and profits, if it causes pollution, if it is safe, if it is responsible for the work it carries out and the safety of those who carry it out, if it is competitive or not. There are many stakeholders in an organisation and they range from the clients to the suppliers, from finance companies to shareholders, from the local community to the State and its institutions, from the environment to future generations, and above all, they include the workers, who operate and with their activity contribute to the satisfaction of the organisation's needs and to those of all the interest bearers, including themselves (6) (12).

In order to carry out actions which are reciprocally beneficial to the interest bearers (including the workers), in its interpretation of its own leadership, the company management plays a premier role by making strategic decisions regarding occupational health and safety as well as allocating necessary resources for carrying out these decisions. However, it is also essential that the workers themselves are in agreement with the choices made by management, if not actually involved in their making. Their role is even more important where occupational health and safety is concerned, since it is the workers who not only participate in the realisation of the system and who can condition the operational quality and results, but who make up the majority of those elements involved.

Middle management also plays a fundamental part in that it acts as the go-between for higher management and the workers. It is responsible for ensuring that specific safety objectives are reached and carried out, as well performing operational checks on activities. It is therefore obvious that all parts of an organisation have their own role to play in the organisational system, contributing to the efficiency and effectiveness of the organisation as a whole.

The organised systems transform the elements they take from the environment in which they live, and give to others through their internal processes. Therefore, in order to develop the value growth, the organisations must identify and manage the processes through which they operate, taking into account that these processes use resources (including air, water, energy) and emit products and services of which they are aware, and that it is their aim to carry out these processes, but that they also produce noise, smoke, heat and their consequences (such as pollution, accidents and illnesses).

According to Porter (6), organisations operate according to one or more principle processes which deal with the realisation of products and services which one expects to generate value, and by a series of support processes which indirectly generate value, contributing to the efficiency and effectiveness of the principle processes (12). Typical support processes are those of the management, purchasing, human resource management, management of the infrastructures and technology. Amongst all of these principle and support processes, we should consider, and never forget another one, which can heavily influence the generation of added value and has reciprocal effects with all the above processes: that which refers to occupational health and safety.

Another crucial management element is the control system which enables the monitoring of activities and services, as well as the collection of objective data on which decisions and choices are based. The monitoring system is based on the choice of opportune indicators which are used to measure the results achieved and performances carried out.

The necessary corrective and preventive actions may be decided and based upon measurements and controls as well as the elements and data which the management uses to identify areas for continual improvement of the health and safety conditions at work.

6. THE OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

It follows therefore, that it is necessary to manage all aspects of health and safety in an organisation and to define the methods by which these aspects may be controlled; in other words, what is needed is a management system through which relative objectives and methods for reaching these objectives may be defined, by formulating policies and strategies, regulating relations between people, defining a functional organisational structure for this purpose in which a hierarchy and means of communication may be established, as well as identifying methods to identify and measure the relative results.

The choice of appropriate objectives is the first fundamental step and one from which the most correct internal management method may be derived, but also the capabilities of the organisation to generate value whilst respecting the rules and constrictions within its relative social, economic and cultural context (6). As far as safety management is

concerned, this can mean planning an appropriate evaluation process of the risks involved which must be based upon identification of a method which should be objective and measurable.

Every organisation must define its own method of OHSMS or, as happens in the management of other aspects such as quality and the environment, must refer to a standardised model proposed by a specific body or regulatory organisation which has been assigned this activity. Unfortunately, as far as occupational health and safety is concerned, a globally valid technical norm does not yet exist, although there are various standards, norms and Guide Lines drawn up in various parts of the world by different bodies. Amongst these, perhaps the most well-known and frequently used is the OHSAS 18001. In Italy, great importance has been given to “Guide lines for a management system for occupational health and safety – OHSMS”, drawn up by UNI, INAIL, ISPESL and by the most important workers and employers associations (13). This document, which is not an official standard, is however very important since it was produced with the involvement of all, at least as far as Italy is concerned, the parties involved in the subject of occupational health and safety.

However, this is not enough for the organisations, and the need for a “best practice” decree has been identified seeing the increased interest in OHSMS and its application in companies. Given the request to regulate the requirements coming from diverse union and employers’ organisations, the Safety Commission of the UNI in September 2003 created a specific work group whose job it was to draw up a document from which to form the basis of a future UNI official regulation concerning OHSMS (9). After a long and arduous task, and in contradiction with the Italian Manufacturers’ Association, the work group delivered the text to the Health and Safety Commission for their evaluation in April of this year. If the normative process proceeds regularly, the first official regulation on OHSMS in the world will have an Italian trade mark and should be established within 2005.

7. OHSMS GUIDE LINES: MAIN CHARACTERISTICS

The management model provided by the OHSMS Guide Lines and the draft legislation from which it was inspired is based upon the following principles:

- the logical start is given by the Deming Circle, systemic management and organisation processes, and from the continuous improvement approach (6);
- integrability with quality control management system (ISO 9000 series) and with the environment management system (ISO 14000 series) (6);
- voluntary adoption of the system by companies and non adaptability of the OHSMS and its applied contents to the power of the supervision bodies (13);
- impossibility of certification by third party of the OHSMS (6) (13).

An essential part in the structure and drawing up of the document has been the particular attention to the structures, organisations and management systems of SMEs.

The publication of the OHSMS Guide Lines has meant an important turning point in the cultural evolution of the approach to problems of health and safety at work. In fact, it is through this document that employers’ and union associations, which are traditionally opposed, national competent bodies working in prevention (INAIL and ISPESL) and the regulatory body (UNI) have agreed, not only upon the principles, but also upon the contents of methods for managing health and safety in companies, in addition to legal obligations, basing everything on the free will of businesses to activate a cycle through which to continually improve their own preventive measures and competitiveness (6) (9). In fact, if we revisit the management principles in paragraph 5, only the willingness of management could lead to a real integration of OHSMS in the total management of the organisation, by formalising general obligations with respect to legislation relating to health and safety, by specifying the essential vision and values and the conviction of the company on this subject, by making the objectives explicit as well as the action principles and the anticipated results, by decreeing acceptance of responsibility and motivations, as well as a commitment to continuous improvement.

The management model which is now defined by the OHSMS Guide Lines, rather than the OHSAS 18001, is a general model which is applicable to any organisation; however, the health and safety management system must be implemented in such a way, as far as philosophy, structure and content is concerned, as to provide for and favour the opportunity for integration in the organisations which adopt them through specific methods based upon their characteristics, size and specific physiology. This is a real management opportunity, in that it is dealing with a relatively flexible area of innovation for which there is a pool of ideas, hypotheses and experiences from which to gather information and assistance. In other words, and this is an important consideration, management systems do not substitute good management; they require it and postulate it (6).

8. OHSMS CERTIFICATION

Between 2001 and 2003, especially in medium and large businesses, the OHSMS was spreading, having as its main reference the OHSAS 18001. Since this document was not an official standard and was not agreed upon by all of the interested parties, SINCERT, the Italian body which acts as guarantor for the certification for management systems, started to question the value of the OHSMS certificates in Italy. Consequently, with support from the majority of the employers’ and employees’ associations, and from main public bodies such as INAIL, ISPESL and UNI, SINCERT set upon the creation of a system capable of rendering the OHSMS certification process uniform and transparent through a precise and agreed upon system of regulations which could guarantee the total of the parts. For these reasons, during 2003, the regulation for the OHSMS accreditation and certification was drawn up, RT 12 SCR, and was approved by

the SINCERT Certification Committee in December of the same year, and in order to manage its realisation, an appropriate accreditation sub-committee was set up in order to represent the main interested parties. The regulation presents several interesting and innovative ideas, with respect to the system of quality control management, aimed at increasing the rigour of the implementation of the systems and subsequent controls (9) (6). The RT 12 has evoked great discussions and interest amongst the workers and management and almost immediately after its approval, many of the principle certification Organisations initiated processes for accreditation during 2004. Today, approximately 300 certificates have been awarded and they have practically doubled in the course of the year since the RT 12 SCR underwent its first revision, starting from May 2005.

However, we are still of the opinion that the organisations intending to adopt the OHSMS should not be thinking just of receiving the certification, but instead should be more concerned with the efficiency and effectiveness of risk prevention and of the operational capacity of the organisation as a whole. The certification can be awarded only after following a correctly applied system which is effectively functioning and truly capable of managing the improvement of health and safety, with the aim of highlighting this capacity to stakeholders and the market. Failure to respect this consequentiality should be considered as pernicious for the safeguarding of health and safety and counterproductive for the organisation, for the certification body and finally for the accreditation system, which if it intends to act as a guarantor between the parties, should have credibility, faith in the established regulations and in their correct application, at the same time affirming their rigour, impartiality and transparency.

Everyone should contribute to this need, without attempting to bypass the regulations in anyway, but searching instead for efficiency and effectiveness through the improvement of risk prevention measures (6).

9. SUSTAINING THE DIFFUSION OF THE OHSMS

As can be seen from the above, there appear to be many advantages and opportunities connected with obtaining an OHSMS. However the SMEs, which we repeat, represent over 98% of the companies in Italy and in which cases of injury and occupational illness are concentrated, encounter problems deriving from scarce economic resources available to modify their processes in order to improve safety at work and have difficulties finding internal or external professional personnel who are able to assist them in the process of implementing the OHSMS. The year preceding the publication of the OHSMS Guide Lines, the Legislative Decree 38/2000 was issued. This decree, in paragraph 23, provided for economic incentives by INAIL for structural and organisational adaptation programmes in order for SMEs, craft and agricultural businesses to comply with the health and safety conditions, assigning approximately 232 million Euro (5) for the initiative. The following regulation contained in the two Ministry of Labour decrees (DM 15.09.2000 and DM 07.02.2001) identified an important element for the financing of OHSMS in the SMEs and for the relative improvement projects foreseen by the application of the system itself (8). Using this mechanism, OHSMS has been financed in almost 300 SMEs from the 1140 requests presented, and 80% of those chose the OHSMS Guide Lines as their reference model. Also the discount tariffs for risk prevention are playing their part in spreading the OHSMS, with a reduction of approximately 10% in the insurance premiums for the SMEs being an important incentive.

In order to make professional personnel available to make the required changes in companies wanting to implement the relevant OHSMS, INAIL has sought an agreement with the employers' associations in order to develop specific training courses. An agreement was reached with the CONFARTIGIANATO system and with that of the Italian Manufacturers' Association, and in particular with the Industrial Union in Treviso. In total, approximately 100 internal auditors and over 50 OHSMS designers/consultants were trained after following an 88 hour course certified by a certification organisation for professional personnel, CEPAS. Those who completed all of the final examinations were then allowed to follow the path of official recognition in their area. More programmes are being planned in the near future for training courses for internal OHSMS planners and auditors, in collaboration with the industrial associations which are part of the Italian Manufacturers' Association and the CONFAPI.

Following the INAIL initiative and the issuing of the RT 12 (para. 9) regulation, other personnel certification bodies have started a similar process, especially for the figure of third party auditor, and many other courses for both qualifications have been initiated by privately but professionally qualified bodies.

10. CONCLUSIONS

In the past 4 or 5 years, the sharing of convictions and values has generated a pathway which is leading to the diffusion of the integrated concept of occupational health and safety in the overall management of organisations in Italy. Not only have hundreds of particularly active and attentive companies understood the inherent value and opportunity offered by the management of occupational health and safety, developing and certifying their own OHSMS, but the basic notion is spreading at an institutional level and proof of this is the inclusion of a programme of training courses for RSPP, according to the draft of the Legislative Decree 195/2003 in approval phase by the State-Regions Conference, in the field of module C, in a lesson entitled "Management and Organisation systems".

All of the above highlights that the interested parties are reaching the awareness that increased attention to safety management reduces the risks for safety and health at the workplace and increases the overall efficiency of company management. This however, is only the initial result, and it is necessary to go forward in order to:

- a) develop suitable applicative models for OHSMS which also concern the risk assessment process;
- b) increase and develop the certification process and the quality and quantity of professionals in the sector in order to create a competitive consultancy market to which the organisations can apply at acceptable costs;

- c) develop the integration with the other managerial, quality and environment systems in the organisations in order to facilitate the uniformity with diverse aspects of organisational activities, limiting costs and increasing performance efficiency;
- d) experiment with applicative methods and models on which to base the sharing of the company parts represented by the stakeholders in the SSL;
- e) search for sources of experience and forms of economic support for the SMEs, which they may use for gaining lower insurance premiums, in order to help overcome economic and financial difficulties connected with starting the OHSMS application;
- f) develop models for analysing the costs and benefits connected with the application of the OHSMS, especially relevant to SMEs in order to reveal the hidden costs involved in not safeguarding occupational health and safety, and comparing them with the direct and indirect benefits deriving from the improvement of safety conditions regarding production and competition.

INAIL has already presented itself as the main agent for the affirmation of the OHSMSs, by working in all the contexts and with all useful connections, from the UNI to SINCERT, the State-Regional Conference, to professional certification bodies, collaborating with and supporting employers and union associations and working especially in the diffusion of the cultural management of safety, providing qualified training in the area. It is necessary to move forward and new initiatives are already programmed and others planned for the near future.

The social context which is evolving, and affirming itself in the form of the Company Social Responsibility – RSI, an essential component in the safeguarding of occupational health and safety for the workers. It is also necessary to develop shared methods which organisations can use to activate and demonstrate their responsibility towards safety which is the primary requirement of their primary resource: human capital.

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