

POSITIVE AND NEGATIVE ASPECTS REGARDING THE IMPLEMENTATION OF AN INTEGRATED QUALITY – ENVIRONMENTAL - HEALTH AND SAFETY MANAGEMENT SYSTEM

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Keywords: quality, environment, health and safety

Abstract: A combined management systems at an organizational level, as an excellent opportunity to improve business performance and consequently, to help them to achieve sustainability. But the simple action of implementing management systems does not guarantee that the organizations will improve performance.

1. Introduction

A management system sets the goals and objectives, outlines the strategies and tactics, and develops the plans, schedules and necessary controls to run an organization. Since many management systems have been developed, companies basically have two choices: leave these to function as specific systems, or integrate them. An Integrated Management System (IMS) is *'the organizational structure, resources and procedures used to plan, monitor and control project quality, safety and environment'*. The need for an Integrated Management System has primarily arisen by the decision to implement an Environmental Management System (EMS), and an Occupational Health and Safety Management System (OH&SMS), in addition to a Quality Management System (QMS) [1].

Over the last ten years many companies have embraced Quality Management Systems, as quality appears to be a fundamental requirement for competitiveness. More recently, environmental issues and health and safety legislation have introduced additional dedicated control procedures: Environmental Management Systems and Health and Safety Management Systems. The synergies and many points of contacts between Quality, Environmental, and Health and Safety Management Systems have led to the emergence of Integrated Management Systems as a way to meet the requirements of quality management, environmental management and health and safety management.

2. Integrated management systems

Around the world organizations are increasingly being pressed to guarantee the quality of their products / services while maintaining and even improving environmental and occupational health and safety performance in accordance with patterns established by society and in consonance with the concept of sustainability. The guarantee of a better performance in an organization translates into environmental, quality and occupational health and safety aspects being considered as part of the business which should therefore be well managed [1]. Saying that, the companies have seen the implementation and/or the integration of management systems, called integrated management systems (IMS) - that integrates ISO 14001, ISO 9001 and OHSAS 18001 into a combined management systems at an organizational level, as an excellent opportunity to improve business performance and consequently, to help them to achieve sustainability. But the simple action of implementing management systems does not guarantee that the organizations will improve performance. Among other things, it is necessary to link to the management

systems, a well-structured performance evaluation methodology to help organizations to achieve their objectives in a more efficient way.

The subject of Integrated Management Systems in terms of quality, environmental and health and safety management is becoming increasingly seen as part of an organization's management portfolio. The QMS, EMS and H&SMS resources, processes and procedures interact through the structure and culture to carry out the activities of planning, controlling, implementing, measuring, improving and auditing, and transform inputs and outputs. The outputs are then compared with the goals, which have been determined by the organization's policy and the needs of all its interested parties. The results of this comparison are then fed back to the input, so that the aims and objectives can be revised and the resources adjusted, if necessary. This sequence of activities forms a cycle of continuous improvement. It is argued that this model can be used by any organization wishing to implement an Integrated Management System, thus it can be also adopted by companies from metallurgical industry [2].

From January 2003 till January 2005 seven companies, from metallurgical industry, implemented environmental management systems. The basic objectives of the implementation projects, among others, were to establish IMS in the companies with the purpose of improving their business's performance and their general management systems, to comply with the environmental and health and safety law and/or to obtain a certification against an international standard. In the first stage of the projects, some of the organizations that already had quality systems in place stated their intention to integrate, by themselves, the new management systems into their quality systems.

Before starting the implementation of the projects, evaluations of the organizations' general management systems were done. The results of these evaluations showed that most of them didn't have organized and structured general management systems- even if some of them had a certified quality system. The evaluations were based on the comparison of their general management systems structure against the structure suggested in the management systems standards.

The evaluations also showed that some of the organizations were unhappy with previous management systems established in their companies, principally quality systems. Unhappy means that the existing management systems were so complex and/or confused that they were not facilitating business management. In fact it was considered that they were doing the opposite. There were two main reasons cited [3]:

- Some management systems were not developed by the personnel of the companies but by a consultant. In those cases the management systems were developed using the private experience of one person. The resulting management systems did not adequately encompass the company's culture.
- In other cases, there was misunderstanding of the requirements of the quality standards. This led to bigger management systems than the were necessary (e.g. 1 – some of the organizations required that their quality systems included procedures for all kind of activities inside their production processes. This led to huge procedures manuals with a lot of procedures not necessary. Also some of the procedures were much more complex and bigger than was necessary. This resulted in a lot of papers and bureaucracy.).

Even when the evaluations demonstrated that some companies did not have well structured quality systems and/or general management systems, it was decided by them to continue the projects and to implement their IMS. For those implementation projects had the following characteristics:

- the IMS implementations took place simultaneously in groups comprising enterprises. It means that all the enterprises had to implement the IMS at the same time, following the same schedule;
- each enterprise implemented its own management systems. The personnel of the organizations were responsible to develop and to implement the management systems. This situation led to a better involvement and commitment of everyone inside the companies. It also gave to all companies a better opportunity to develop and document, in the management systems, the organizational culture (a pattern of assumptions that an organization has invented, discovered or developed in learning to cope with external adaptation and internal integration);
- IMS implementations were based on the concept of learn and do. It means that each company identified an internal group of people to be an IMS implementation group with a leader to coordinate the group. The implementation process was divided into modules and each of the modules was carried out by means of workshops/training sessions, bringing together all seven of the involved organizations' IMS implementation groups. Using the conclusions drawn about their own organization during workshop sessions and what they learned from the training workshops, the participants went back to their own organizations to implement their own systems.

3. Benefits of integrated management systems

Numerous rewards can be obtained by the companies from metallurgical industry from adopting Integrated Management Systems. It can be argued that the benefits can be grouped into two categories: internal benefits and external benefits. The internal benefits are related to the internal function and processes of the company, while the external ones are associated with the external activities of the company. Furthermore, internal benefits can be divided into three categories: organizational, financial and people benefits. Similarly, the external ones are grouped into commercial, communication and quality/environmental/safety benefits. Table 1 summarizes the internal benefits that a company from metallurgical industry can gain from the implementation of an Integrated Management System.

Internal and External Benefits, Categories and Examples

Internal Benefits		
Organizational Benefits	Financial Benefits	People Benefits
<ul style="list-style-type: none"> • Improvement of quality of management by down-sizing three functional departments to one and reducing fuzzy management boundaries between individual systems 	<ul style="list-style-type: none"> • Cost savings by the reduction of the frequency of audits 	<ul style="list-style-type: none"> • Increase in employee motivation, awareness and qualifications

<ul style="list-style-type: none"> • Increase in operational efficiency by harmonizing organizational structures with similar elements and sharing information across traditional organizational boundaries • Avoidance of duplication between procedures of systems • Streamlining paperwork and communication 	<ul style="list-style-type: none"> • Reduction in external certification costs over single certification audits • Increase in profit margins 	<ul style="list-style-type: none"> • Creation of a better company image among employees
External Benefits		
Commercial Benefits	Communication Benefits	Q/E/S Benefits
<ul style="list-style-type: none"> • Competitive advantage • Improvement of market place • Gain new customers/satisfy existing ones 	<ul style="list-style-type: none"> • Improvement of company's image • Improvement of relations with stakeholders • Evidence of legal compliance 	<ul style="list-style-type: none"> • Improvement in quality, environmental and health and safety • Reduction of hazardous waste generation • Reduction of equipment damage and product loss

4. Barriers of integrated management systems

In the same way as benefits, the barriers to IMS implementation can be grouped into internal (resources, attitudes/perceptions, implementation) and external (support and guidance, economics, certifiers/verifiers). The internal barriers to IMS implementation are summarized in Table 2.

Internal and External Barriers, Categories and Examples

Internal Barriers		
Resources	Attitudes/Perceptions	Implementation
<ul style="list-style-type: none"> • Lack of financial resources • Lack of management and/or staff knowledge, skills and training 	<ul style="list-style-type: none"> • The change appears too revolutionary/ resistance to change • Low awareness of the benefits 	<ul style="list-style-type: none"> • Cultural differences between disciplines • Complexity and differences among systems

<ul style="list-style-type: none"> • Lack of employee involvement/motivation • Lack of management and/or staff time 	<ul style="list-style-type: none"> • Other priorities more important • Perception of bureaucracy • Short-term orientation 	<ul style="list-style-type: none"> • High effort for implementation
External Barriers		
Support and Guidance	Economics	Certifiers/verifiers
<ul style="list-style-type: none"> • Lack of support schemes • Lack of sector specific implementation tools and examples • Lack of experienced consultants to assist companies/poor quality information and conflicting guidance • Lack of promotion of IMS 	<ul style="list-style-type: none"> • Insufficient drivers and benefits • Uncertainty about the value of IMS in the market place • Different stakeholders demands 	<ul style="list-style-type: none"> • High costs of certification/verification • Duplication of effort between certifiers/verifiers and internal auditors

5. Conclusions

For the organizations that want to continue to survive and compete in the actual market it is necessary for them to continually improve performance of their business and management systems in a sustainable way, taking in consideration the necessities of the interested parties. They need, at least, to develop and to implement good and efficient management systems compatible with their reality, culture and taking in consideration the new trends of the world. Those management systems needs to have in their framework an efficient performance evaluation methodology to help the organization's decision makers to get precise and right decisions, in accordance with the organization's missions, visions, polices and objectives.

6. Bibliography

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