

THE BENEFITS OF THE IMPLEMENTATION MECHANISMS FOR THE INTEGRATED SYSTEM IN SMES

POPA LILIANA-VIORICA

Constanta Maritime University, Romania

ABSTRACT

To survive and achieve to develop their activities in an increasingly competitive environment, small and medium sized enterprises have to increase their competitiveness and, progressively, reduce their operational cost.

It is necessary to develop a flexible and unique management system for these enterprises to use to integrate all management systems or activities related to quality, safety and environmental issues and improve their overall business performance and also to get prepared for certification according to the relevant international standards.

The output of this paper is a route map of activities for the implementation of the integrated management system, incorporating tools addressing specific management areas using quality, safety and environmental issues to focus them. The route-map has the potential to integrate the overall management activities of an organization. The tools of the route map were partially implemented to two SMEs, giving positive validation of the concepts.

Key words: *standard, SMEs, route map, safety, quality.*

1. INTRODUCTION

SMEs are and will be a significant task to work on within the framework of the European Union economy. The global trend indicates that today and in the near future big firms will be united to giant enterprises, which will dominate the market, influencing all its parameters and determining prices.

Due to these reasons, SMEs will face many perils and run the risk of being excluded from the marketplace, if they do not manage issues like cost reduction and competitiveness immediately and in the most efficient way.

The European Union's concern about enabling SMEs to survive in a rather difficult business environment is very obvious. It is important to mention that:

- In the 1996 British Quality Foundation & EFQM edition of the Business Excellence Model and the process of Self Assessment, special guidance for Small Businesses is provided for first time.
- The Regulation (EEC) 1836/93 for Eco-Management and Audit Scheme (EMAS) gives emphasis to the way that it can be implemented to SMEs.
- Most of the Research Programs funded by the European Union provide opportunities for projects that deal with SMEs development and their performance improvement

Additionally, management system standards like the ISO 14004: 2005 "Environmental Management Systems - General Guidelines on Principles, Systems and Supporting Techniques" and the BS 8800: 1996 "Guide to Occupational Health and Safety Management Systems" make special reference to their applicability to SMEs.

Quality, safety and environmental issues reflect all aspects of competitiveness. More precisely:

- the concept of Quality Management, as a means to achieve benefits for all stakeholders groups through sustained customer satisfaction (ISO 9001: 2008

"Quality Management Systems - Guidelines"),

- Safety, as a management field for controlling and reducing all kinds of losses and the relevant cost
- Environment, as a synthesis of internal and external parameters to be managed for the benefit of both the organization and the society create, in synergy, a triangle basis for developing a management system that SMEs need and are able to implement and which can be extended to serve the overall management needs of these enterprises.

2. DEVELOPMENT OF AN INNOVATIVE UNIQUE GENERIC SYSTEM FOR MANAGING QUALITY, SAFETY AND ENVIRONMENTAL ISSUES

By examining the special characteristics and needs of SMEs, among which the necessity for cost-effective management systems and procedures and the limited resources are the most critical ones, the importance of establishing and using management systems that unify a number of issues in these organizations becomes very obvious.

Although a number of articles have addressed the IMS approach for quality, safety and environmental issues, no generic management basis has been established yet for SMEs. Standards, models and regulatory documentation demonstrate a structural relationship between the management methodologies of these three issues but there is a big difference between their objectives and orientation as they appear to be put in practice at the moment:

- Quality management basically aims at satisfying customer expectations and needs
- Safety management primarily aims at fulfilling legal obligations
- Environmental management aims at proving the existence of a social responsibility.

By integrating these issues through the development of a unique management system and a common

framework of objectives, a significant aid is provided for SMEs to achieve competitiveness and continuous improvement targets.

3. PREPARATION OF SMES FOR ISO 9000 AND ISO 14000 CERTIFICATION

ISO 9001 and ISO 14001 certification is very important to SMEs for various reasons:

- It provides strong marketing tools to these companies that really need them
- It increases their products or services reliability
- It creates a sound background for culture change
- It produces "formal paths" of communication to SMEs where the high rate of informality could cause problems
- It gives SMEs the opportunity to become suppliers of bigger organizations which consider such certification a requirement for starting a collaboration with a supplier
- It upgrades their image to all groups of stakeholders.

4. INCREASE OF SMES ORGANIZATIONAL FLEXIBILITY

An advantage of SMEs is that their size helps them maintain their flexibility. Apart from that, the organizational structure is a critical parameter for an organization's flexibility. By integrating management systems eventually a lean-structured cross-functional process-oriented organization is gradually formed.

Fewer horizontal functions substitute separate vertical ones and fewer people are needed while more activities are accomplished. The IMS route-map implementation should lead SMEs to create more flexible organizational structures and increase their efficiency.

5. REDUCTION OF SMES OPERATIONAL COST

Quality, safety and environmental management systems provide cost reduction benefits to companies, through:

- minimization of cost of non – conformity
- improvement of productivity
- continuous reduction of losses and of the relevant cost
- improvement of process management
- implementation of preventive actions instead of corrective actions

The synergy achieved by integrating these management systems will multiply the benefits mentioned above. The IMS route-map will additionally help SMEs control their overall operational activities more effectively and efficiently through specific tools.

6. ESTABLISHMENT OF MECHANISMS FOR SMES CONTINUOUS ASSESSMENT OF PERFORMANCE IMPROVEMENT

Based on the eight quality management principles and the principles of Business Excellence Model, the IMS route-map introduces ideas and techniques of continuous improvement assessment that suit SMEs.

It must be mentioned that SMEs needs for performance assessment are different from these of big enterprises; for SMEs, parameters like time and response speed are much more critical, as their time horizons are inevitably shorter and their financial and other resources are limited.

Their assessment system must continuously monitor their overall performance, giving them the possibility to take immediate action as soon as problems or system deficiencies occur.

7. INCREASE OF SMES COMPETITIVENESS

The combination of organizational flexibility, operational cost reduction and continuous total performance improvement assessment will increase SMEs competitiveness dramatically.

An IMS route-map can act as a platform for the development of a new management style that will be based on:

- simplified purposeful procedures
- value-adding process planning
- front-line management practices

7.1. *Inducing vertical subcontracting: the korean way*

Korea's experience is of special interest since the rapid development of its subcontracting system allowed the SME sector to greatly expand its role in manufactured output and exports in a relatively short period- the two decades since the mid 1970s. The radical change in industrial size structure during that period was partly a result of the changing composition of industrial output by sector, and partly due to a policy imperative to spread the fruits of industrial growth more widely (Baek, 1992). The later shift from low-wage strategy a development model in which interfirm networks gained importance (Cho, 1995, 2) also played a role. A dense subcontracting system was built on cultural, economic and policy factors, and on direct incentives. Many linkages rest on mutual trust and interpersonal respect based on social relationships, such as common schooling and regional or family background (Cho, 1995, 13). At the same time, market forces encouraging subcontracting were complemented by government policy and pressure. Some of the new small firms are spin-offs from the large enterprises for which they subcontract, while others have arose independently. Legislation enacted in 1982 specified the SME industries to be promoted, excluded large firms from activities reserved for small ones and promoted subcontracting (Cho, 1995, 4). Since the late 1980s, externalization (transfer of production activities formerly handled within the large firm) to small

subcontractors occurred rapidly. Korea has thus been unusually vigorous in its promotion and mandating of large-small linkages, as it has in overall SME support policy, where a wide variety of institutions and programs cater to perceived needs. Kim et al (1995, 18) report that though few of these publicly provided services were given high average ratings for importance by a set of SME exporters in four industrial sectors, virtually all firms reported considerable benefit from one or another of the sources. The support system as a whole thus appears to have a considerable positive impact. The question from the perspective of other countries is the extent to which Korea's policy of mandating and nurturing increased vertical linkages might be replicable.

8. STEPS OF THE IMS ROUTE-MAP DEVELOPMENT PROCEDURE

As the IMS route-map addresses to SMEs, the first issue that had to be studied and analyzed was their special characteristics and needs as they were indicated by the literature review and the data collection procedure. The analysis led to two groups of results:

- results showing how these organizations operate, their overall weaknesses and strengths and what they actually need and the IMS route-map should provide
- results related to the way quality systems are usually implemented to SMEs and to the characteristics of these systems.

The former group of results strongly influenced the content of the IMS route-map as the input of the user group, whereas the latter group of results influenced the structure of the IMS route-map and the points related to its applicability.

A very important aspect of the IMS route-map development procedure was the design and development of a number of particular tools to be implemented within its framework, or even independently.

9. IMS ROUTE-MAP TOOLS DEVELOPMENT

The particular tools of the IMS route-map aim at:

- introducing a systems approach to areas that, generally, are not managed that way in SMEs
- fulfilling the needs of SMEs
- satisfying the requirements of the applied standards
- providing simple, cost-effective ways for SMEs to cope with specific issues, by integrating

activities

- facilitating the IMS implementation in SMEs

The development of each tool was based on the following axis:

- determination of the areas of concern to be addressed by the tool, that would ultimately specify its aims
- identification of the standards requirements to be met by the implementation of the tool
- design of the tool, by modifying the content of its particular step or phase and the sequence between them, based on the expected final output of the tool.

The priority of the tools introduction within the framework of the IMS route-map was determined by the integrated basis of quality, safety and environmental management standards.

10. CONCLUSIONS

The fundamental elements of the paper were:

- the special characteristics of SMEs and their needs for survival and development, as they were determined by the literature review and the analysis of the results of the relevant standards
- the quality, safety and environmental management principles and the requirements and / or guidelines of the relevant standards.

11. REFERENCES

- [1] ISO 9001: 2008 "Quality Systems - Model for quality assurance in design, development, production, installation and servicing".
- [2] ISO 14001:2005 "Environmental Management Systems - Specification with guidance for use"
- [3] PARIS, CHRISTOPHER, *The Complete Guide to Understanding & Implementing ISO 9001's Process Management Requirements*, 2003.
- [4] Brassard, Michael & Diane Ritter, *A Pocket Guide of Tools for Continuous Improvement & Effective Planning*, First Edition, Salem, the United States of America, 1994.
- [5] SMEUREANU, I., ANGHEL, L.D., ONETE, B.C., NISTOREANU, P., *Small and Medium Enterprises in Contemporary Society*, Ed. KMV, Haan, 2006.
- [6] TRICKER R., *ISO 9000 for SMEs*, Ed. All Beck, București, 1999.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.