

A LITERATURE REVIEW ON ISO 9001 STANDARDS

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ABSTRACT

Quality management systems (QMs) are business practices that may benefit companies. As several empirical studies show, implementing QM effectively influences firm performance positively (Powell, 1995; Samson & Terziovski, 1999; Huarng & Chen, 2002; Kaynak 2003; Parast, Adams & Jones, 2011; Shahin & Dabestani, 2011). Firms that implement QM focus on providing more value for their customers and improving the efficiency of processes. In this context, management system standards (MSSs) have enjoyed enormous success over the last years, in the sphere of QM (ISO 9001). The first MSS appeared within the context of QM, and more specifically, in the sphere of quality assurance, which according to the definition in the ISO 8402 standard, is the set of all those planned and systematic actions applied within the framework of a Quality System, to provide adequate confidence that a product or service will satisfy given requirements for quality (ISO, 1994). By the end of 2010 at least 1.109.905 ISO 9001 certificates had been granted in a total of 178 countries worldwide, which nearly tripled the number of certificates at the end of 2000 (ISO, 2011). The aim of this paper is to put together some opinions and results of different studies and to come with some important reasons for implementation of ISO 9001.

Keywords: Quality management, ISO 9001 standards, Quality systems, consumer awareness.

INTRODUCTION

As various authors point out (e.g., Braun, 2005), the ISO 9001 standards do not refer to the compliance with a given goal or result. In other words, they are not performance standards measuring the quality of a firm's products or services or a firm's environmental results; rather, they are standards setting out the need to systematize and formalize a large number of corporate processes within a set of procedures, and to document such implementation. It must also be remembered that the implementation of this type of standard is a voluntary one, although in some sectors it has become an obligatory measure, given the coercive influence of customers (Braun, 2005; Mendel, 2006).

LITERATURE REVIEW

Customer satisfaction, profitability and market leadership are driven in large part by delivering quality products and services to customers. Today, more than ever, there is a worldwide trend towards increasingly stringent customer expectations regarding quality. Accompanying this trend has been a growing realization that continuous quality improvements are often necessary to achieving and sustaining excellent economic performance. One roadblock to providing quality products and services was the definition of what "quality" meant to different customers. Different countries, industries and governments all had varying quality systems that suppliers had to adopt in order to deliver goods around the world. A single worldwide standard was needed to simplify international standards. This gave rise to ISO - the International

Organization for Standardization. Located in Switzerland, ISO is the specialized international agency for standardization and the source of ISO 9000. Established in 1947, it is comprised of the national standards bodies of 140 countries, working together to produce more than 13,000 International Standards for business, government and society. The object of ISO is to promote the development of standardization and related world activities with a view to facilitating international exchange of goods and services and to developing cooperation in the sphere of intellectual, scientific, technological and economic activity. The results of ISO technical work are published as international standards.

There are several ISO standards one of them is ISO 9000, which related to quality management systems and designed to help organizations ensure that they meet the needs of customers and other stakeholders. ISO 9000 deals with the fundamentals of quality management systems including the eight management principles on which the family of standards is based. ISO 9001 is one of the standards in the ISO 9000 family. ISO 9001 deals with the requirements that organizations are wishing to meet the standard have to fulfill. Third party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001. Over a million organizations worldwide are independently certified, making ISO 9001 one of the most widely used management tools in the world today. ISO 9001, Quality Management Standard, is the internationally recognized standard for the quality management of businesses. It applies to the processes that create and control the products and services an organization supplies, prescribes systematic control of activities to ensure that the needs and expectations of customers are met and is designed and intended to apply to virtually any product or service, made by any process anywhere in the world. Implementing a Quality Management System will motivate staff by defining their key roles and responsibilities. Cost savings can be made through improved efficiency and productivity, as product or service deficiencies will be highlighted. From this, improvements can be developed, resulting in less waste, inappropriate or rejected work and fewer complaints. Customers will notice that orders are met consistently, on time and to the correct specification. This can open up the market place to increased opportunities.

BENEFITS OF THE ISO 9001 STANDARD

Many scholars have analyzed the benefits of the ISO 9001 standard in several performance dimensions (e.g. operational benefits, customer results, etc.). In this context, the following 13 benefits are examined and mentioned in the 50 papers that have been consulted for this literature review:

Exports, Efficiency, Improvement in competitive position/competitive advantage, Improvement in systematization, Improved quality in product/service, Improved image, Improvements in employee results, Improved customer satisfaction, Improved relationships with suppliers, Improved relationships with authorities and other stakeholders, Market share, Profitability and Sales and sales growth.

The three benefits most frequently analyzed by researchers are improved efficiency, improved customer satisfaction and improvements in relations with employees. These are followed by profitability and improved systematization. Other benefits attained by many firms, as analyzed by the studies, are an improvement in market share and sales, image, product/service quality and exports. Conversely, the three benefits least studied are an improvement in competitive position, improved relations with suppliers and improved relations with authorities and other stakeholders.

In order to analyze these benefits arising from the ISO 9001 standard, some authors examine its effects through a list of benefits, whereas others base themselves on, or even propose a classification of such benefits. Such is the case of Lee (1998), who classifies benefits into benefits gained with respect to internal operations (better team spirit, less staff conflict, reduced wastage, increased efficiency, shorter lead time), benefits gained with respect to customer relations (improved sales through new customers, longer contracts with existing customers, less control from existing customers, fewer complaints from existing customers), and benefits gained with respect to subcontractor relations (subcontractors to become certified, better relations with subcontractors, more stringent control over subcontractors). Nield and Kozak (1999) show that the benefits of the standard may be the following: operational benefits (improved operating systems, enhanced operating practices), marketing benefits (improved customer satisfaction, gained competitive edge, nation-wide recognition), and human resources benefits (gained more committed work force, reduction in staff turnover). Casadesús and Giménez (2000) show that these benefits are people results (work satisfaction, suggestions system, health/safety, turnover, absenteeism), operation results (errors and defects; order processing; reliability; costs; on-time-delivery; cost savings; lead time; stock rotation), customer results (customer satisfaction; complaints; repeat purchases) and financial results (market share; sales; return on sales; return on assets).

Casadesús, Jiménez and Heras (2001) classified benefits as internal benefits and external benefits. Internal benefits are the following: work satisfaction, safety at work, suggestions system, absence from work, salaries of workers, safety and reliability, on-time delivery, order processing, number of errors, stock rotation, quality costs, cost savings. As external benefits they find the following: customer satisfaction, number of complaints, number of repeat purchases, market share, sales per employee, return on assets, return on sales. Casadesús and Karapetrovic (2005) find that these benefits may be related to financial results (increased sales, returns on investment, market share, and sales per employee), operational results (reduced logistic costs, improved supplier relationship, increased inventory turnover, fewer non-conformities, compliance with delivery dates, and shorter lead time) and customer related results (loyalty purchases, customer satisfaction, and fewer complaints). Similarly, other scholars use two general groups of benefits related to operational performance and financial performance (Naveh & Marcus, 2004; Briscoe, Fawcett & Todd, 2005). For example, for operational performance Naveh and Marcus (2004) show defect rate, cost of quality, productivity, on-time delivery and customer satisfaction, while Briscoe et al. (2005) list defect rate as a percent of production, cost of quality, productivity, and on-time delivery. For financial performance both studies show market share, sales, and export growth. Based on this review, in general terms, the ISO 9001 standard creates benefits related to customer satisfaction (for instance, fewer complaints and improved customer satisfaction) (e.g., Casadesús & Karapetrovic, 2005; Singh, 2008), improvement in staff management issues (for instance, more training for employees) (e.g., Gupta, 2000; Renuka & Venkateshwara, 2006) and improved efficiency, documentation and clear knowledge of tasks by employees (e.g., Chow-Chua, Goh & Wan, 2003; Magd, 2008). These results indicate that most firms experience improvement in these issues, due to the fact that the ISO 9001 standard allows them to reduce mistakes and rework, save on costs and improve the management of the firm. Many firms also attain these benefits because ISO 9001 allows for an improvement of the documentation and work procedures, and a greater clarity of work. Other benefits obtained by many firms are an improved image and an improved service or product quality, because the fact that they possess a certificate enhances their image in the eyes of their customers. In turn, the greater control exercised upon their internal processes allows them to improve the quality of the product or service. Similarly, several studies provide evidence of certified firms outperforming non-

certified firms (Heras, Dick & Casadesús, 2002; Corbett, Montes-Sancho & Kirsck, 2005; Sharma, 2005). This improvement is attributed largely to improvement in internal business processes. In this context, other studies also show that ISO 9001 certification is not associated with significant financial performance in the longer term, or that there is no significant difference between the impacts of quality management on financial performance for firms with and without ISO 9001 certification (Häversjö, 2000; Singels, Ruël & van de Water, 2001, Tsekouras, Dimara & Skuras, 2002). These ideas indicate that, although there are firms that do succeed in improving their financial results (for instance, their market share and their sales, because the quality certificate opens the door to certain customers), there are many others that do not manage to attain any improvement. Therefore, as the studies show, there is not such an unquestionable relationship between the standard and the financial results. Consequently, the impact of ISO 9001 on firm performance was more mixed compared with the impact of QM on firm performance, which was much more unanimous (Martínez-Costa Martínez-Lorente & Choi, 2008). Therefore, the clearest benefits are those influencing the internal performance or operational results, customer results and people results, while the effects on financial results are inconclusive.

CONCLUSIONS

This paper carries out a literature review on the ISO 9001 standards and their benefits. On the basis of this analysis the paper suggests several ideas about similarities and differences, classification of benefits, integration, and the selection effect. Consequently, in this context, these standards show clear benefits on certain issues, such as efficiency, employees, systematization, customers and other stakeholders, which indicates that, in general terms, certified firms improve people, operational and stakeholder performance. Nevertheless, only some certified firms do better than non-certified firms regarding financial performance. Therefore, although the standards do create internal and external benefits, and therefore many of them have a positive effect upon people, operational issues and stakeholders, the relationship between these standards and financial performance is not so clear.

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