

The impact of the implementation of management systems. Aspects to consider for decision making in organizations. Case of small and medium-sized enterprises in Bogota Colombia

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Abstract

The implementation processes management systems generate phenomena of resistance to change, which can affect decision making in organizations and the normal development of their activities. The eagerness to carry out processes of implementation of management systems without due internal analysis, from the products that affect the organizations, has generated disadvantages that affect the economic and organizational stability.

Previous studies indicate that there is still much debate about the impact of the implementation of management systems on the productivity of companies, similarly studies have been developed on the need to continuously improve the organization's inside in terms of organizational communication and organizational change, to the effective taking of decisions. In order to analyze the elements that affect the implementation of management systems and productivity and competitiveness, a review was made regarding the application of the PROACT method (Problem Objectives, Alternatives, Consequences, Transactions) from the framework of the goal-based choice. On the other hand, the influence and dependence of the aspects that affect decision making are analyzed, based on the results of the exploratory study carried out in small and medium-sized enterprises (SMEs) in Bogota D.C. On the impact of the implementation of quality and environmental management systems on productivity.

Keywords

ISO 9000, ISO 14000, Organisational performance, organisational effectiveness, PROACT, Goal Based Choice, Productivity, competitiveness, influence analysis, hierarchical analysis process.

Introduction

Integrated management systems (quality management, environmental management, safety management and occupational health) have become of strategic importance for the development of organizations. It has been left to be a fashion for its implementation, it is for this reason that its development and dissemination are a consequence of compliance with regulations or regulations of mandatory application or by the forces of the business environment generated in each of the associations and productive sectors where the organization (Vásquez-Bernal & Mosquera-Laverde, 2015).

Several studies on the impact of the implementation of management systems have resulted in aspects to consider in order to analyze the change in organizations and the development of adjustments in their organizational behavior.

On the other hand, different positive and negative results have been observed on the effectiveness of the implementation in different organizations, depending on the size of the company, the maturity of its organization, the social object of the organization, among others (Vásquez-Bernal & Mosquera -Laverde, 2016).

Problem Statement

Small and medium-sized enterprises do not know how management systems can influence their organization's strategic decision making, or how organizational behavior can affect the generation of change. This phenomenon was evidenced in the exploratory study carried out on a discretionary sample of small and medium enterprises, whose results present important aspects about the lack of knowledge about productivity measurement, the relation between operational costs and the impact on finances in companies, the impact of the absence of internal communication in making sound and effective decisions (Vásquez-Bernal & Mosquera-Laverde, 2016)

Vásquez-Bernal & Mosquera-Laverde (2015) indicates that there are many investigations regarding the implementation of management systems, as well as the studies carried out by certifying entities on the benefit of the implementation of management systems in organizations, compared to those that have not implemented; however, in the impact of the implementation of the management systems in the organizations in terms of their productivity, there are marked differences in the different studies consulted.

There is still much debate about the impact on management systems, in terms of company performance, operations management and competitiveness (Vásquez-Bernal & Mosquera-Laverde, 2016). With regard to the ISO 9000 standard, it is observed in the studies carried out by Boiral and Roy (2007), they cite Walgenbach, (2001); Acharya and Ray, (2000); Aarts, (2001); Wilson et al., (2003) [12]; Heras et al., (2002); indicate that the implementation process is important because it generates spaces for understanding the regulations and regulations that oblige companies to establish a system that improves the efficiency of documentation.

In the reviews of the state of knowledge carried out by Vásquez-Bernal & Mosquera-Laverde, (2015), analyzes Boiral and Roy (2007), which indicates that in Europe, implementation represents a competitive advantage in the commercial area, the desire for implementation may generate superficial implementation processes that do not have the internalization of the norm, in the internal processes of the organization, in terms of motivation, and organizational behavior. Similarly, Boiral and Roy (2007), confirm that the motivation of the implementation of the management system depends on the commercial benefits.

On the other hand, Vásquez-Bernal & Mosquera-Laverde, (2015), observes in the studies of Sampaio, P., Saravia, P., Monteiro, A., (2012) that the implementation of management systems have, a positive correlation between the implementation of quality management systems (ISO 9000) and the performance

of organizations; however, Terziovski et al. (1997) indicates that certification of a management system is not an indicator of sufficient management that determines the performance of organizations. Other authors, such as Quazi et al. (2002) contradict Sampaio, et al (2012), stating that there is no positive statistical relationship in terms of certification and company performance.

From this review and ratifying Sampaio, et al (2012), which establishes that research focused on analyzing the relationship between ISO 9000 certification and results in organizational performance are scarce and contradictory. Therefore, they recommend to develop empirical studies on the subject that generate elements of investigation in the academic investigations.

Methodology

Given the importance of establishing contexts that help to understand how the implementation of management systems can affect the performance of organizations, the analyzes made by Vásquez-Bernal & Mosquera-Laverde, (2014), are taken from the perspective of small and companies in Bogotá DC The results of the exploratory study presented by Vásquez-Bernal & Mosquera-Laverde, (2014), were organized, based on the Goal Based Choice of Hammond, J., Keeney, R., & Raiffa, H. (2002). This analysis presented by Vásquez-Bernal & Mosquera-Laverde, (2016) shows the criteria and subcriteria, indispensable for determining their incidence and relevance.

Table 1. Description of the criteria and subcriteria of the impact of the implementation of quality and environmental management systems in Bogotá's SMEs

(Source of the author from Vásquez-Bernal & Mosquera-Laverde, (2016))

Problem	Impact of the implementation of management systems in Bogotá's SMEs
Criteria	Subcriteria
C1. Level of impact of the implementation of the management systems	SC1. Impact on Productivity
	SC2. Impact on management
C2. Difficulties in the implementation of management systems	SC3. Level of difficulty in implementation
	SC4. Restrictions on implementation
	SC5. Pressure of stakeholders
C3. Strategic, social, financial and productive reasons that affect the implementation	SC6. Competitive Strategy
	SC7. Social impact

Table 1 shows the organization of the results found in the exploratory study of Vásquez-Bernal & Mosquera-Laverde, (2014) and systematically related as criteria and subcriteria, through the application of the PROACT method of Hammond, J. , Keeney, R., & Raiffa, H. (2002).

From this description of criteria, influence and dependence can be determined, taking into account the experience of experts related to the subject studied. Vásquez-Bernal & Mosquera-Laverde, (2016), establishes the profile of experts to develop the study. Similarly, Vásquez-Bernal & Mosquera-Laverde, (2016) performs the analysis of influence and dependence on the criteria and subcriteria. The results of the influence-dependence analysis indicate positive behavior in SC1 subcriteria. Impact on productivity, SC3. Level of difficulty in implementation, SC4. Restrictions on implementation, SC5. Pressure of stakeholders. These results imply the development of continuous improvement strategies within organizations and strengthen the opportunities for improvement in the administrative and operational processes that direct their efforts for the improvement in the decision making of the organizations.

Conclusions

The analysis of the results of the exploratory study based on the Goal Based Choice approach helps to determine the important aspects where a researcher and expert can direct their efforts in determining strategies of change, for the decision making.

Based on this information established in criteria and subcriteria, different instruments can be applied that help to present an illustration of possible contexts that focus on elements of improvement in decision making. For the case of studies by Vásquez-Bernal & Mosquera-Laverde, (2016), one of the tools used was the analysis of influence and dependence. In fact, a spectrum of possibilities opens up in the combination of techniques, for example, Vásquez-Bernal & Cortés-Aldana (2015), apply the combination of PROACT and AHP (Analytic Hierarchy Process) for the criteria demarcation in the certification of engineering professionals.

The results found on the subcriteria and related criteria of major importance are important to focus new research and establish improvement strategies in the organizations that were the object of study. Establish strategic alliances that contribute to the University-Business relationship (Vásquez-Bernal, 2011)

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