Relationship Between ISO 9001 Quality Management System and Productivity Improvement:
The Case of the Colombian Auto Parts Sector

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EXECUTIVE SUMMARY

The objective of this case is to verify, through the construction of an explanatory model, the possible connection between ISO 9001:2015 quality management system and productivity improvement on a representative sample of companies in the auto parts sector based on different aspects considered in the implementation. The auto parts sector of the automotive industry, supported mainly by its large and medium-sized companies, produces the necessary parts and pieces to support this market. The research analyzed 110 auto parts companies, proportionally distributed in terms of size (large, medium, and small). The results of the empirical study confirm the existence of positive relations between the ISO 9001:2015 quality management system and the improvement of productivity. This chapter focuses on analyzing the relationship between the ISO quality management system and the improvement of productivity as business renewal strategies, for which it explores the Colombian auto parts sector.

ORGANIZATION BACKGROUND

The impact of globalization, ICT innovations and market integrations continue to change competitive business environments, making knowledge and expertise primary sources for competitive advantage, at least in knowledge-intensive industries. In addition, rapid technological change affects dramatically the nature and pace of firms' competitive moves (e.g., Ball, 2002 in Hatami *et al.,* 2003).

Similarly, the interest in implementing quality management systems (QMS) has been a constant within the business improvement initiatives in recent times. The application of the ISO 9001 is one of the best expressions of the linkage in the companies, such as factor incident in the search for better business results. Investigate the effect produced by the implementation of the QMS ISO 9001:2015 and its likely relationship with the improvement of productivity is not something simple, since the QMS has no direct relationship with the financial outcome of the organization.

According to Hardie (1998), the factors through which the quality is involved, such as productivity or customer satisfaction, are affected by different factors that prevent easily establish a transparent relationship between them. However, there are different views on whether the certified companies are deploying or moving toward the implementation of quality management practices more advanced (Binney, 1992; Meegan & Taylor, 1997; Terziovski & Power, 2007).

This chapter provides the results of research to determine the relationship between the QMS ISO 9001:2015 with the improvement of productivity through empirical observation of the companies in the sector of automotive parts (EMSA) in Bogotá and specify which are the variables more incidents on the object of study. The research examined a sample of hundred-ten (110) auto parts companies, distributed proportionally in size is concerned, that is, large, medium and small enterprises.

According to Escolano and Belso (2003) the permanent process of change in the economic and political environment is been affected by globalization, which modifies organizations and dynamic companies in a systematic way. Therefore, currently the priority should be to evaluate the competitive position and the participation of its products, in order to take advantage of market opportunities that allow them to be strengthened and meet the challenges of the new competitors. All of the above leads to a growing concern for quality and its management, as a present and unquestionable them, within the organizations (ISO, 2002).

The production systems and their relationship with quality has been studied extensively during the last 50 years, placing the QMS and the improvement of productivity as two key indicators of interest in companies. However, the majority of studies on manufacturing systems analyzes the desired productivity, but fails to highlight the role it plays when it relates to the quality (Jingshan & Ningjian, 2007). Several publications have studied the QMS, but have not taken into account

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