

DOES QUALITY MANAGEMENT SYSTEM INCREASE PRODUCT QUALITY? AN EMPIRICAL FINDING FROM ISO CERTIFIED FIRMS IN KERALA

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The major aim of this paper is to explore the impact of Quality Management System on Product Quality in ISO Certified Large-Scale manufacturing firms in Kerala. Data for this study was collected using a Pre-tested questionnaire that was distributed to 60 ISO certified Large-Scale manufacturing firms (24 from public sector and 36 from private sector) in Kerala selected by purposive sampling method under non-random sampling technique from the database of Kerala State Industrial Development Council, Trivandrum. Two Top level managers (GM/MD/CEO's, DGM etc.) from the each firm were the respondent of the survey. 120 top level managers are selected for the study from both sectors (48 from public sector and 72 from private sector). Correlation analysis was used to analyze the collected data with the help of SPSS Software.

The study reveals that there is a positive linear relationship between quality management system and product quality in ISO certified manufacturing firms in Kerala. This paper presents new data and empirical insights related with the relationship between quality management system and product quality in ISO certified Large-Scale manufacturing firm in Kerala.

Keywords: Quality Management System, Product Quality, ISO certification.

Paper type: Empirical Research paper

This empirical research paper discusses the relationship between Quality Management System and Product Quality in ISO certified manufacturing industries in Kerala.

LITERATURE REVIEW

Quality Management System

A quality management system (QMS) is a collection of business processes focused on achieving quality policy and quality objectives to meet customer requirements. It is expressed as the organizational structure, policies, procedures, processes and resources needed to implement quality management. A quality management system is a management technique used to communicate to employees what is required to produce the desired quality of products and services and to influence employee actions to complete tasks according to the quality specifications.

What Purpose Does a Quality Management System Serve?

- ✓ Establishes a vision for the employees.
- ✓ Sets standards for employees.
- ✓ Builds motivation within the company.
- ✓ Sets goals for employees.
- ✓ Helps fight the resistance to change within organizations.
- ✓ Helps direct the corporate culture.

The benefits of a Quality Management System

A fully documented QMS will ensure that two important requirements are met:

- The customers' requirements – confidence in the ability of the organization to deliver the desired product and service consistently meeting their needs and expectations.

- The organization's requirements – both internally and externally, and at an optimum cost with efficient use of the available resources – materials, human, technology and information.

Product Quality

Quality of a product may be defined as “its ability to fulfill the customer's needs and

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expectations. Product quality is the product's ability to fulfill the expectations and needs set by the end user. The product must work reliably and perform all of its functions. Product quality is one of the most important factors for a manufacturing firm to be successful in the world market. It is argued that a quality image, once obtained, can improve a firm's ability to compete, as well as its long-term opportunity for success (Pfau, 1989). DuBrin (1995) stated that business strategy development must place a high priority on product quality, which is a crucial hinge for business success or failure in today's quality performance- oriented markets. Product quality has become a major business strategy (Feigenbaum, 1991). Ahire et al. (1996) suggested that improving product quality be the prime objective of a firm's quality management efforts, and product quality be used as a primary indicator of the firm's quality efforts. Increasingly, firms are recognizing the strategic importance of product quality (Anderson et al., 1995). Product quality is increasingly viewed as a strategic asset to improve a firm's global competitiveness (Steingard and Fitzgibbons, 1993)

Problem discussion and research questions

A documented quality management system helps employees understand exactly what they can do in their work areas. There are many benefits to be derived from implementing ISO 9000 standards, such as reduced wastage, increased customer satisfaction, employee morale, more efficient and responsive organization, better position in the market place, and bigger profits (Mirams and McElheron, 1995). Randall (1995) stated that adopting ISO 9000 can produce the following benefits: Improved efficiency of operations; improved utilization of time and materials; clearly defined responsibilities and authorities; improved accountability of individuals, departments, and systems; improved communication and quality of information; formalized systems with consistent quality, punctual delivery, and a framework for future quality improvement; fewer rejects, less repeated work and warranty costs; less scrap, etc. Empirical study shows that firms with ISO 9000 certification reported significantly higher quality than those without (Voss and Blackmon, 1996). Many researchers indicated that having an ISO 9000

certificate can help firms improve product quality (e.g., Motwani et al., 1996).

So, the researcher wants to find out the relationship between Quality Management System and Product Quality in ISO certified Large-Scale manufacturing firms in Kerala

This study seeks to provide answers to the following the research question

- What is the relationship between Quality Management system and Product Quality in ISO certified manufacturing firms in Kerala

Objective of the study

- To assess the relationship between Quality System Management and Product Quality in ISO certified manufacturing firms in Kerala

Significance of the study

The literature survey shown that there is no large-scale empirical research has been systematically conducted to find out the relationship between quality management system and product quality in ISO certified manufacturing firms in Kerala. In order to bridge this research gap, a study related with quality management system and product quality in ISO certified manufacturing firms in Kerala is truly needed. This study will reveal the relationship between quality management system of an organization and its impact on product quality.

On the basis of these analyses, Top level managers of the manufacturing firm in Kerala can understand that how their quality management effort helps to achieve product quality

Scope of the study

The study was conducted among the ISO Certified large-scale manufacturing firms both public and private sectors in Kerala, irrespective of nature of product produced.

METHODOLOGY

Secondary data

The secondary data is collected from review of existing literatures and published sources such as information of enterprises, journals, articles, PhD thesis, websites etc.

Primary data

Primary data collected for this study from the Top level managers of ISO certified, Large Scale manufacturing organizations in Kerala with the help of a pre-tested questionnaire.

Research strategies

The study carried out with descriptive type of research. The survey conducted among the ISO certified Large-Scale manufacturing firms both public and private sectors in Kerala. Likert scale was adopted to measure the questions of organizational communications and employee satisfaction. The questionnaire has been designed on 5-point scale (Strongly Agree to Strongly Disagree). Purposive sampling method under non-random sampling techniques was adopted to select the organizations for the study both public and private sector undertaking. 60 organizations are selected as sample firms which contain 24 from public sector and 36 from private sector. 2 Top level managers (GM/MD/CEO's, DGM etc.) from the each firm were the respondent of the survey. 120 top level managers are selected for the study from both sectors (48 from public sector and 72 from private sector).

Tool for data analysis

To assessing the impact of quality management system and product quality in ISO certified manufacturing firms in Kerala, the statistical tool, correlation co-efficient was used.

Limitation of the study

Data collected for assessing product quality was from the top level managers of the firm, not from customers directly. The study reflects, only the perceptions of top level managers regarding the product quality in manufacturing firms in Kerala. So this secondary nature data may leads to the biased results.

ANALYSIS OF THE DATA

Impact of quality management system on product quality

The following hypothesis was made to assessing the impact of quality management system and product quality

H0.1: There is no positive relationship between quality management system and product quality in ISO certified manufacturing firms both public and private sectors in Kerala

H1.1: There is a positive relationship between quality management system and product quality in ISO certified in manufacturing firms both public and private sectors in Kerala.

Independent factor	Dependent factor	Correlation	P Value
Quality Management System	Product Quality	0.502	<0.001

From the above table, the correlation between quality management system and product quality is 0.502 and is significant at 1% level. So it can be concluded that there is a 50.2 percentage positive linear relationship between quality management system and product quality in ISO certified manufacturing firms in Kerala.

FINDINGS, SUGGESTIONS AND CONCLUSIONS

Findings

The study reveals that there is a positive linear relationship between quality management system and product quality in ISO certified manufacturing firms in Kerala. It means quality management system practices of the ISO certified manufacturing firms in Kerala are leads to the product quality of these firms.

Suggestions

The study shows that the medium level correlation (50.2%) between quality management system and product quality but the aim of quality management systems of this organizations are to produce high level quality products. So it is to be improved more from medium level achievement to high level achievement.

Conclusion

This paper discussed the relationship between Quality Management System and Product Quality in ISO Certified Large-Scale manufacturing firms in Kerala. The study reveals that there is a positive linear relationship between quality management system and product quality in ISO certified manufacturing firms in Kerala. It means quality management system practices these firm are leads to the product quality.

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