Research Progress on the Influencing Factors of Total Quality Management on Enterprise Performance

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Abstract

With the deepening of the research on total quality management (TQM), it has shifted from the early basic theoretical research to the research on the relationship between total quality management and performance. We synthesise the current work into the impact of TQM on business behaviour, based on the key elements of TQM. The analysis shows that the impact of corporate leadership, corporate culture, employee participation and personnel management on corporate performance is very significant.

Keywords

Total Quality Management; Corporate Performance; Influencing Factors.

1. Introduction

Total Quality Management (TQM) is an approach to long-term success of an organisation based on quality, the involvement of all employees, customer fulfilment and the interests of all members of the organisation and society. As research has progressed, the study of TQM has shifted from the early research on theoretical foundations and implementation methods to the study of total quality management and performance. Judging from the current research, the empirical research results from different countries and regions, or even different regions of the same country, have not been unanimously recognized regarding the impact of total quality management on corporate performance. In the following we will summarise the factors that influence TQM on business performance.

2. Analysis of Key Factors of TQM

At present, there is no unified view on the components of TQM, and there are differences in the conclusions drawn due to different research indicators, research methods and models. Anderson et al. [1] according to deming's management theory, conducted a questionnaire survey on employees and managers of 41 enterprises, collected data, and adopted path analysis, and concluded that employee management has a significant positive impact on enterprises, while continuous improvement and customer satisfaction have no significant positive impact on enterprises. Flynn et al. [2] conducted a path analysis on the data collected by Anderson. The research results are as follows: the support of senior leaders has a direct effect on other quality management activities; the soft elements of TQM activities have an indirect effect on corporate performance through the intermediation of hard elements.

When Ebrahimi et al. [3] studied total quality management and employee role pressure, they identified the components of total quality management as customer focus, strategic planning, leadership, full participation, process management, supplier management, information processing and human resource management. And Daniel et al. [4] verified the impact of total quality management on product development from two aspects: product quality and product

innovation. They studied 130 Korean manufacturing companies. The results show that total quality management as a basic principle is not only applicable to the manufacturing sector.

Francisco et al. [5] proposed 10 elements of total quality management, including management by leadership, risk management, quality programming, workforce relationship training, shareholder monitoring, vendor management, customer focus, process leadership, continuous enhancement, training, communication, and expert training, in a survey of 106 ISO 9000 certified companies. In addition, Black et al. [6] in Australia divided TQM into "soft quality" elements and "hard quality" elements, mainly including teamwork, strategic planning, employee management, full participation, quality atmosphere, quality planning, information processing and so on.

Generally speaking, there is no unified view among scholars on what TQM is, and the specifics of TQM are a prerequisite for studying the impact of TQM on business performance. Researchers at home and abroad have formed different key factors in the practice of TQM. We divide these key factors into three categories. The first category is based on the evaluation factors of the world's three major quality awards, the second category is based on the basic principles of the eight major quality awards, and the third category directly draws on previous research results on the elements of total quality management. Although each article differs in the constituent elements of total quality management, there are certain similarities. The key factors that often appear are leadership, strategy, customers and markets, measurement analysis and improvement, resource management, process management, etc.

3. Analysis of the Influencing Factors of TQM on Corporate Performance

The impact of TQM on business execution can be seen in many ways. For this reason, Powell [7], in his study of the connection of TQM to business achievement, classified TQM into six key influences: the leadership, metrics of analysis and kaizen, strategy, the resources, clients and the markets, and the process administration, and designed a system of evaluation indicators consisting of 47 questions. The study states that open organisational and product improvement is associated with overall business performance and that zero defect administration has a favourable affect on TQM compliance. Close to supply Quotient, but has little effect on overall performance.

When Adam [8] first examined the association of TQM with business performance, he noted that qualitative excellence and enhanced productivity had a significant influence on both quality, operational and the financial aspects of performance. Adam on Asia, Europe and North America, the three areas of 977 manufacturing corporates to collect the data, and questionnaire survey and regression analysis, to the enterprise quality cost, defect rate, customer satisfaction and sales performance evaluation, concluded that the welfare of the employees and cognitive have significant effects on total quality cost, and defect rate; Financial performance is related to improved management and employee benefits. The associations of quality factors with performance were different across the three locations, although the results also identified a similar rule for all samples in Asia, Europe and North America, where qualitative considerations that are more critical in one location are also significant in other locations.

Choi & Eboch [9] studied the relationship between total quality management and factory performance and customer satisfaction, and pointed out that TQM has a strong relationship with customer satisfaction and has a significant impact on financial performance. The impact of corporate performance on customer satisfaction and not obvious.

Samson & Terziovski [10] used data collected from 1,200 manufacturing companies in Australia and New Zealand and used multiple regression analysis to study the significant relationship between total quality management and corporate performance. It is concluded that the relationship between total quality management and corporate performance is significant, but

not all factors have a strong influence. Among them, such factors as leadership, personnel management and customer-oriented are significantly positively correlated with enterprise performance, while information and analysis are negatively correlated with enterprise performance. In addition, there is no significant correlation between process management, strategic planning and operational performance.

Based on indicators of the 1994 American, European, Japanese, and Australian Quality Awards, Dow [11] conducted a path analysis of 698 companies and pointed out that: unions and customer focus have a significant impact on quality results; leadership and human resource management have an impact on operational performance with significant impact.

Kaynak [12] conducted path analysis on 214 companies, performed performance evaluation on corporate finance, market, quality performance, and inventory management performance. The direct or indirect impact of these measures on corporate performance: Product design directly affects process management, and directly or indirectly affects quality performance through process management; the effect of total quality management activities on the financial performance and market performance of an enterprise is achieved indirectly through the intermediary role of quality performance.

Forza & Filippini [13] discusses the relationship between quality management and corporate performance from the two dimensions of quality consistency and customer satisfaction, surveys 43 Italian companies, designs questionnaires, and studies using structural equation models to draw conclusions: process control the influence of human resource elements on corporate performance is more significant.

In short, the impact of corporate leadership, corporate culture, employee participation and personnel management on corporate performance is very significant. Therefore, enterprise managers should pay practical attention to and to support the activities of quality improvement, reinforce the development of the entire enterprise system of quality and the training of staff in quality literacy and technical skills, care for their staff and encourage them to be involved in quality work decisions and campaigns. In particular, businesses must pay attention to the building and ongoing development of the quality system, reinforce continuous improvements, develop an advanced quality system, and develop and popularise sophisticated knowledge and practices in quality management. Regarding specialised R&D personnel, training of knowledge and skills should be strengthened and reasonable incentives should be adopted to promote continuous improvement of the quality of design work. Consider that customer contentment is not only subject to the product nature of the product. Most of the domestic aspects of enterprise management under the customer-centric principle also affect domestic and foreign customer satisfaction, which can also be influenced by external considerations.

4. Summary

With the continuous deepening of TQM research, leadership, strategy, customers and markets, measurement analysis and improvement, resource management, process management, etc. are all key factors of TQM. And through inductive analysis, it can be found that the impact of corporate leadership, corporate culture, employee participation and personnel management on corporate performance is very significant.

References

- [1] Anderson J. C., Rungtusanatham M.and Schroeder R.G., A theory of quality management underlying the Deming management method. Academy of Mangement Review, 1994, (3): 472-509.
- [2] Flynn B. B., Schroeder R.G., Sakakibara S. The impact of quality management practices on performance and competitive advantage. Decision Sciences, 1995, 12(26): 659-691.

- [3] Ebrahimi Z F, Wei C C, Rad R H. The impact of the conceptual total quality management model on role stressors. Total Quality Management & Business Excellence, 2015, 26(7-8): 762-777.
- [4] Daniel Prajogo, Soon W. Hong. The effect of TQM on performance in R&D environments: A Perspective from South Korean firms. Technovation, 2008, 28(12): 855-863.
- [5] Francisco José Conca, Juan Llopis, Juan José Tari. Success factors of quality management. the journal des sciences de gestion direction et gestion, 2002, (198): 69-80.
- [6] Black S A, Porter L J. Identification of the Critical Factors of TQM. Decision Sciences, 1996, 27(1): 1-21.
- [7] Powell Thomas C. Total quality management as competitive advantage: A review and empirical study. Strategie Management Journal Chiehester: 1995, (16)1: 15-37.
- [8] Adam Jr. E. E., Corbett L.M., Flores B.E., et al. An international study of quality improvement approach and firm performance. International Journal of Operations and Production Management, 1997, 17(9): 842-873.
- [9] Thomas Y. Choi and Karen Eboch. The TQM Paradox: Relations among practices, plant performance and customer satisfaction. Journal of Operations Management, 1998, 17(1): 59-75.
- [10] Samson D., Terziovski M. The relationship between total quality management practices and operational performance. Journal of Operations Management, 1999, 17(4): 393-409.
- [11] Dow D., Samson D. and Ford S. Exploding the myth: do all quality management practices contribute to superior quality performance. Production and Operations Management. 1999, 8(1):1-27.
- [12] Kaynak Hale. The relationship between total quality management practices and Their effects on firm performance. Journal of Operations Management, 2003, 21(4): 405-435.
- [13] Forza C, Filippini R. TQM Impact on Quality Conformance and Customer Satisfaction: A Causal Model. International Journal of Production Economics, 1998, 55(1): 1-20.