

The Effect of Business Innovation Capability on the Relationship between TQM and Malaysian SME Performance: A Conceptual Framework

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Abstract— Business environment and increasing demand for better quality by customers have caused many companies to realize that they should provide high quality products or services in order to successfully compete in the marketplace. Consumers are aware of rising standards in product or service quality and any decline in their satisfaction would be a serious cause of organizational failure. Numbers of study have provided sound evidence on successful implementation of TQM in a firm or organization that have reaped and gained a lot of benefits from the implementation. On the contrary, past literatures also showed different scenarios. The literature review has shown gaps in the study of quality management and organizational performance. Furthermore, the capacity for innovation is an important element affecting the quality management and organizational performance. However, there is still lack of study that describes innovation as one of the key factors in the implementation of SMEs' quality management. Therefore, there is a need to examine the implementation of innovation in quality management that can affect the performance of SMEs. Therefore, it is necessary to conduct the study with the inclusion of Business Innovation Capability (BIC) into the TQM application. This study presents a theoretical framework to examine the critical factors of quality management and organizational performance relationships among SMEs in Malaysia with the Business Innovation Capability (BIC) as the mediating variable. This study will examine the relationship of TQM on innovation from the perspective of the innovation process.

Keywords—Total Quality Management, Innovation, Capability, SME.

I. INTRODUCTION

MALAYSIA'S integration with global production networks involves the upgrading the SMEs from the second and third tier suppliers to the first tier suppliers that provide services directly to the core companies in the value chain, which are the large firms and multinational companies. At the same time, SMEs will be the preferred choice in Government's efforts to enhance the growth of this entity to become the local champion of large companies and able to compete internationally. These conditions indicate the existence of business support and opportunities for entrepreneurs in Malaysia. Thus, it is significant that the implementation of quality management by the SMEs to be more competitive

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This is in line with the Government's target to make the SMEs able to compete at the national, as well as the global level.

Therefore, this study is relevant and important to be implemented in order to determine the quality management practices adopted by SMEs and their relationship to the performance of the organization. This is a proactive step implemented as the preparation for the empowerment of SMEs in order to seize the existing opportunities and facing an increasingly challenging market. However, SMEs in Malaysia seem to be facing problems to compete in an open economic trade and mostly dominated by large economic sectors. Accordingly, this study will examine the ability of innovation in the implementation of SMEs quality management. This is because the increase in quality management is required to facilitate the SMEs to strengthen their competitiveness through the application of quality standards and certification, dissemination of knowledge on quality management and benchmark comparisons with the firm that recorded an outstanding performance. Academicians and industry players have spent a lot of time to find and identify organizational factors, practices and materials that can support and improve the performance of quality management [1], [2]. However, there is still lack of study that describes innovation as one of the key factors in the implementation of SMEs' quality management. Therefore, there is a need to examine the implementation of innovation in quality management that can affect the performance of SMEs. Ultimately, management's job is to hone the entire system so that it is capable of making the leap from continual improvement to continual innovation in whole new product categories that the customer has never even contemplated. [3] described that the competitive environment requires the organizations to focus on the more complex dimensions of performance, which are quality and innovation. This is because the uncertain environment could pose a threat to the quality management program conducted in an organization.

II. LITERATURE REVIEW

In this study, the critical success factors have been made the elements of TQM in quality management practices specifically for SMEs in Malaysia. The details are as follow:

Management Commitment

Management commitment is one of the critical factors of TQM strategy that is often presented in the literature review [4],[5],[6]. In most organizations, top management typically acts as a leader or driving force in the implementation of the

TQM such as creating values, goals and systems for customer's satisfaction. According to this, the critical role played by the top management through strong commitment is essential to ensure the effective implementation of the TQM. To ensure the top management to perform their responsibilities effectively, they need to be skilled in communication, team building, measurement, decision-making and self-management [7]. If all these elements can be implemented effectively, it can lead to effectiveness of TQM strategies in various dimensions including the TQM work processes, work environment, cost savings and customer needs. Empirically, many studies have examined the relationship between management commitment and performance [9], [10], [11].

Strategic Planning

Strategic planning refers to the activity of the formulation, implementation and evaluation of an organizational strategy that enable the organizations to achieve the desired goals [12]. Generally, the organizations formulate more than one strategy at the same time. Consequently, strategic planning in TQM involved steps to ensure that it is in line with other strategies in the organization, either short, medium or long term. Strategic planning in TQM strategy should consider the ability of the organization in implementing the strategies [13]. Identification of organization's capability enables the effective implementation of TQM.

Customer Focus

As shown in the literature review, the main goal of TQM is to fulfill the needs of consumers. Therefore, the implementation of TQM can be considered as failed if value added service cannot be provided to the customers consistently [16]. In order to fulfill the needs of the customers, SMEs need to focus on all criteria of products and services that contribute to the value and customer's satisfaction [14]. In order to achieve these objectives, the interaction between the organization and customer is very important [15]. Through the interaction with the customer, the organization is able to determine the critical specifications for them to obtain vital information directly.

Benchmark

The requirement in practical benchmark is to gain competitive advantage through systematic comparison. Benchmark refers to the measurement and analysis of products, services and techniques of competitors in the same sector [16]. In other words, the benchmark allows organizations to be constantly one step ahead of other competitors. Among the criteria that can serve as a benchmark are the effectiveness of internal processes, customer satisfaction and employee satisfaction. Undebatable, the benchmark can enhance various dimensions of organizational performance. As discussed in the previous literature, there is a correlation between benchmark and performance [16], [17].

Relationship with Suppliers

Suppliers play an important role in determining the success of TQM. The qualities of products manufactured depend on the extent of quality of the materials supplied by the suppliers [16]. Realizing the importance of the role of provider, Deming emphasized that an organization should stop the practice of choosing suppliers based on cost alone, but needs to build a

solid relationship with qualified suppliers although the amount is small. Qualified suppliers are referred to the good, reliable, competitive and cooperative suppliers [18]. Furthermore, eligible suppliers must meet the prerequisite specifications and request that ultimately able to improve the quality of manufactured products. Furthermore, long-term relationship with a supplier apart from the selection of quality suppliers enables organizations to have a positive impact. In previous empirical studies, it shows the relationship between suppliers and the performance [16].

Continuous Improvement

The philosophy of TQM is built from the principle of continuous improvement of the entire team in the organization to meet customer's needs [19]. As described by [20], organizations need to improve the production and service systems consistently to improve quality and productivity, hence reducing costs. However, organizations nowadays need to expand the aspects of continuous improvement, not only focusing on the product context and the direct process, as the management of the organization itself needs to improve [21]. In other words, continuous improvement is not a specific agenda but a continuous journey that involves every element of the organization involved. As reported in the literature review, there are many evidences that show continuous improvement can have positive impact on the performance [22], [23].

III. TQM AND SME PERFORMANCE

Apart from empirical studies that test and validate the critical factors in TQM, there are also plenty of studies that have been conducted to investigate the relationship between TQM implementation and performance. As reported in previous studies, many researchers have clearly demonstrated that significant improvements in various organizations can be achieved through the implementation of TQM. For example, TQM has contributed to the improved performance of the manufacturing sector [9],[10], local government [8] and various service organizations. [11] examined the impact of TQM on the performance through a mail-out survey, where there are two types of variables that have been tested; overall financial performance and the performance of TQM. Subjective performance evaluations have been used in the study. The result shows that TQM can produce economic value to the organization but could not affect the organization as a whole. The study also revealed that specific TQM factors such as benchmark, training, flexible manufacturing, process improvement and better measurement are not beneficial to organizational performance. Therefore, the researcher recommended the organization to focus on the flawed quality factors that can be nurtured such as more open culture, employee empowerment and management commitment. A study by [24], [8], [17], generally found a significant cause and effect on the relationship shown between TQM and organizational performance. However, the effect is different since it depends on the length and size of an organization's operations. In the study, only three critical factors of TQM were tested, namely customer's satisfaction, employee's satisfaction and the quality of service staff. Based on the findings by the researchers, there is no generic rule to

implement the quality. Therefore, they have concluded that every organization needs to understand their uniqueness before adopting the TQM. An organization's performance can be measured in various ways including through an assessment of the performance. Measurement of the performance of an organization is very important to observe how far the achievements and effectiveness of the programs that have been implemented. In measuring the performance of organizations, especially the SMEs, there is a need to view the factors that influence their success. Previously, researchers had suggested that it is highly important to have a valid measure and reliable information about the success of SMEs in the process of studying the relationship between independent variables and business performance.

IV. BUSINESS INNOVATION CAPABILITY AS INTERVENING VARIABLE

Although the initial concept of management focused on the quality, practitioners predict that fostering innovative practices and improved performance will lead the transition from continuous improvement to continuous innovation. In other words, TQM should nurture the innovation. Empirical studies offer conflicting conclusions. [2] showed a positive relationship between the implementation of TQM and technological innovation, while the study by [25], [26] found no empirical evidence that TQM promotes better performance in business innovation. Previous studies of the relationship between TQM and innovation focused on product innovation, which includes the context of production and physical as the result. However, this study will examine the relationship of TQM on innovation from the perspective of the innovation process. [27] classified innovation to product and process innovation. In the context of manufacturing firm, product innovation covers the physical and process innovation, including organizational and technological aspects. According to the contingent perspective for strategic management [28], despite the implementation of TQM is a necessary prerequisite for greater innovation, it is insufficient. Thus, the contingent variables change, improve or become an intermediate for the relationship. In particular, the Business Innovation Capability (BIC) is an important contingent variable. BIC takes the form of an interactive function, if formulated as complementary assets to the TQM or the intermediary, according to the theoretical perspective of RBVDC, which is to make a reformation where the firm needs the ability to innovate. Therefore, this study will explore the role played by the TQM. Paradoxically, despite the adoption of innovation in management excellence model and even though the consensus states that innovation offers a major source of innovation for sustainable competitive advantage, research on the relationship between TQM and innovation is still lacking [2],[15],[25].

Heated debate over the TQM as a business management model, especially for medium and large firms, raises recurring questions in respect to the effects of TQM on business performance. Although the unanimous and consistent answers to these questions are still endless, many scholars have concluded that TQM positively impact the business performance [28]. Although the objectives and performance

innovation are not included as the priority generic competition in most of the operations management research, naturally the efficiency, flexibility, quality and delivery time [29] are considered as emerging research topics and become competitive priority for the management of the growing operation [30]. Therefore, by analogy, the best practices adopted by the TQM should have a positive influence on innovation, in the form of operational business performance. On the other hand, considering that the implementation of the TQM's best practices is to maintain the spirit brought by Deming shift from the continuous improvement to innovation, the researcher set the universal type relations between BIC and performance.

V. CONCEPTUAL FRAMEWORK FOR MALAYSIA SMES.

Based on an extensive review on previous studies, a conceptual model was developed to show the relationship between the three variables and their performance as shown in Figure 1. Several indicators have been identified that can be used to measure the implementation of TQM and its impact on the performance of SMEs in Malaysia. The variables were categorized into three groups, namely: independent variable - the critical success factors; dependent variable - organization's performance and intervening variables - business innovation capability. Figure 1 concludes the quality management framework based on the discussion above. The framework is linked to the performance of the organization. The proposed critical success factors for SMEs in Malaysia consist of six elements: management commitment, strategic planning, customer focus, supplier relationship, benchmarking and continuous improvement. The implementation of each constructs involved would result in a beneficial effect on the performance of SMEs. Therefore, the focus should be given by the management to formulate the constructs to ensure that the organizational performance can be enhanced.

As discussed before, innovation has been proposed as an intervening variable that influences the relationship between TQM and organizational performance. Therefore, as a consequent, the researcher believes that the innovation capability will be intervene on performance of SMEs in Malaysia. Then, the intervening relationship is indicated by the arrow connecting the critical factors to the performance of the organization. Innovation capability at the centre acts as an intervening variable of the relationship as shown in Figure 1.

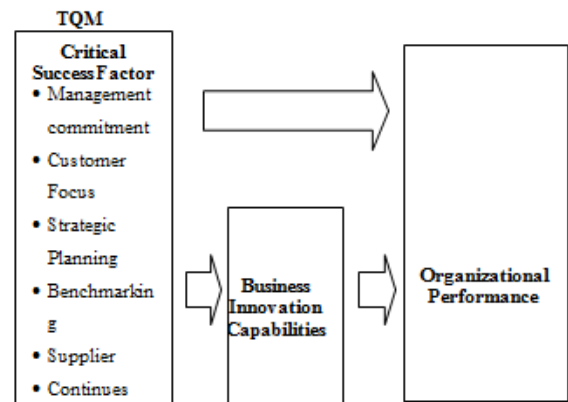


Figure 1: Conceptual Framework For Malaysian Smes

VI. CONCLUSION

Previous researches indicate that the implementation of quality management in SMEs is able to give a good impact such as assisting in identifying the target market, effective utilization of material and human resources and improve competitiveness in the market. However, when compared to larger organizations, the implementation of management tools such as the TQM is still slow and unsuccessful. Although there are numerous studies in the field of quality management in Malaysia, the study on the implementation of quality management in SMEs and its impact on business performance is still poorly understood. Most of the researches focused on large-scale industries of manufacturing sector. The SMEs differ when compared with larger organizations in a variety of things such as management style, production processes, capital and the ability to negotiate. Therefore, the SMEs should have its own way in the implementation of quality management. Consequently, the important contribution of this study is to identify the critical success factors of TQM approach. Furthermore, the conceptual framework to assess the relationship between critical success factors and performance of SMEs is also proposed. Then, the empirical studies will be carried out using the proposed conceptual model to validate the hypotheses and answer the research questions.

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