

## Total Quality Management Approach for Malaysian SMEs: Conceptual Framework

**Muhammad Naqib Mat Yunoh**  
Faculty of Entrepreneurship & Business  
Universiti Malaysia Kelantan  
16100, Kota Bharu, Kelantan  
Malaysia

**Khairul Anuar Mohd Ali**  
Graduate School of Business  
Universiti Kebangsaan Malaysia  
43600 UKM, Bangi, Selangor  
Malaysia

### Abstract

*Small and Medium Enterprises (SMEs) in Malaysia contribute to economic development by virtue of their sheer numbers and increasing share in employment and Gross Domestic Product. Their role in the Malaysian economy will strengthen the resilience of the country to face a competitive and challenging global environment. However, due to limitations, liberalization and competitive in the global market, transformation of the business paradigms is needed. Consequently, the re-evaluation and the improvement of the business process performance as well as the products quality are crucial. The literatures have demonstrated a significant research gap in term of the quality management practice between the organizational performances of Small and Medium Enterprises. Therefore, the model constructs has been developed based on the total quality management philosophy and approaches. This paper presents a theoretical framework developed that empirically examine the critical success of the quality management practices implementation as well as their relationship to the organization performance, within Malaysian SMEs. In addition, the business innovation is of the element that has a significant influence to the quality management and the organization performance.*

**Keywords:** total quality management, conceptual framework, small and medium enterprises

### 1. Introduction

Small and Medium Enterprises (SMEs) play an important role in a developing countries. It is a type of business that contribute to the economic growth of a country. SMEs create employment opportunities, increase exports and also act as suppliers to large companies in the industry (Larimo, 2013 & Sakiru et. al 2013). It is also play a greater role not only as an impetus; but also as a key driver of growth in order to achieve an inclusive and balanced growth (Abdulsaleh & Worthington 2013) and (Kaushik et al. 2013). As a new basis for the activities of the private sector, SMEs are very important in the process of economic transformation. SMEs also promote innovation activities and act as the stabilizer of growth during the economic downturn. Therefore, it is important to develop robust, competitive and resilient SMEs to face the challenges that arise, including pressure from market liberalization.

Based on the reported by the Small and Medium Industry Development Corporation (SMIDEC 2006) and the report by the Small and Medium Enterprise Development Corporation (SMECORP 2008), there are two main categories of SMEs in Malaysia; manufacturing and services.

The report also shown that a total of 40,793 companies are from the manufacturing sector and 39,373 of them have the status of SMEs. Despite the growing numbers of SMEs in Malaysia, literature shows that SMEs are also a business entities that have its own barriers; which can affect its performance. The identified major obstacles are the opportunity to grow the business, product quality and competitiveness in the market. These identified obstacles faced by SMEs are due to the lack of skills, knowledge, business resources and the ability to produce quality products.

In order to improve, the driver of growth is expected to change with SMEs whereby it serves as an important economic agent to become a high-income country. The role of SMEs has expanded not only as a stimulus to grow and support large firms but also as a driver of economic growth.

Malaysia's integration with global production networks involves 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 consisted the large firms and multinational companies. SMEs will be the preferred choice as part of Government's efforts to enhance the growth of this entity to become the local champion and to be able to compete internationally. These conditions indicate the existence of business support and opportunities for SMEs entrepreneurs in Malaysia. Thus, to become more competitive, it is significant that the implementation of quality management conducted by the SMEs. This is in parallel with the Government's target to make SMEs able to compete at the national, as well as the global level. The development and growth of SMEs have been established through the planning of various development programs by the Government in the 10th Malaysia Plan (RMK10). 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 proactive step is implemented as the preparation for the empowerment of SMEs in order to seize the existing opportunities and to face an increasingly challenging market. However, SMEs in Malaysia seem to have obstacles to compete in an open economic trade which mostly dominated by large economic sectors. The lack of resources and limitations are the identified obstacles to the SME development. It can be seen through the low productivity compared to peer countries and the more developed countries. The average productivity of SMEs in Malaysia was estimated at RM 47,000 in 2010, which represents about one-third of the productivity of large firms (RM 148,000). Respectively, when compared at the international level, SMEs in Singapore and the United States were four and seven times more productive than SMEs in Malaysia (SME Master Plan 2012). It is crucial for SMEs entrepreneurs to be aware of the current scenario and to immediately identify and prepare for the challenges. This will ensure that SMEs will be more competitive in the market in order to achieve more outstanding performance. Every organization, including SMEs have to acknowledge the importance of quality as the critical aspect that should be emphasized in all activities of the organization to face the increasingly challenging market industry.

## **2. Research Gap**

SMEs including the micro enterprises play a significant role in driving the growth, employment and income, as well as the anchor for economic transformation. Due to the changing external environment and intensified global competition, Malaysia needs a 'game changer' to transform into a high-income nation by 2020. In order to achieve Vision 2020, it is certainly a challenging effort and requires a new approach to accelerate the growth of SMEs. The primary goal is to enhance the contribution of SMEs to the economy. This requires a quantum leap in growth and transformation to higher value-added activities of knowledge-intensive. Therefore, the SME Master Plan is the 'game changer' in planning a new direction for the development of SMEs across all economy sectors until 2020. SME Master Plan approach is based on the evidence and detailed analysis. Outcome-based approach will be adopted in the development of SMEs by establishing the comprehensive Monitoring and Evaluation (M&E) system. This plan is a "lifelong plan" that can be modified to remain relevant with changing times. The program will follow the private sector demand, which is to meet the needs of SMEs. This program is intended specifically to address market imbalances, with a clear time frame to complete the program. The Master Plan also contains strong elements of a public-private partnership, thus encouraging the sharing of responsibility and accountability between ministries and agencies, as well as the private sector.

Meanwhile, the Government will act as the facilitator and the catalyst in creating supportive environment and ecosystem to enhance the growth of SMEs through encouragement of entrepreneurship, innovation and investment. An understanding of the factors that drive the performance of SMEs is crucial in helping SMEs to improve to the next level. Based on the analysis results by the Productivity and Investment Climate Surveys by the World Bank, there are six factors that affect the performance of SMEs in Malaysia.

These are, the application of innovation and technology, the development of human capital, access to financing, access to the market, legal and regulatory environment, and infrastructure. These challengers must be address for SMEs to achieve high performance and to have the desired results. It is understandable that a drawback in any of these drivers may affect the growth prospects of SMEs as a whole.

An understanding of the factors that drive the performance of SMEs is crucial to enable SMEs to compete at the national, as well as the international level. Apart from establishing the Master Plan, the Government's efforts in fostering innovation was continued by allocating up to RM 36 million of SME Innovation Vouchers for local SMEs who have the desire to increase their innovation and technology in their operations (Metro 2013). The existence of such incentives and plans shows that the Government is serious in making SMEs as the main key players for national development. However, the analysis by the World Bank in the study of the SME Master Plan highlighted that the application of innovation and technology constitutes the most critical driver of performance among the six areas. Innovation among SMEs in Malaysia is still at a low level compared with other developing countries. The underlying reason to explain the low level of innovation among SMEs is their difficulties to understand the innovation process holistically.

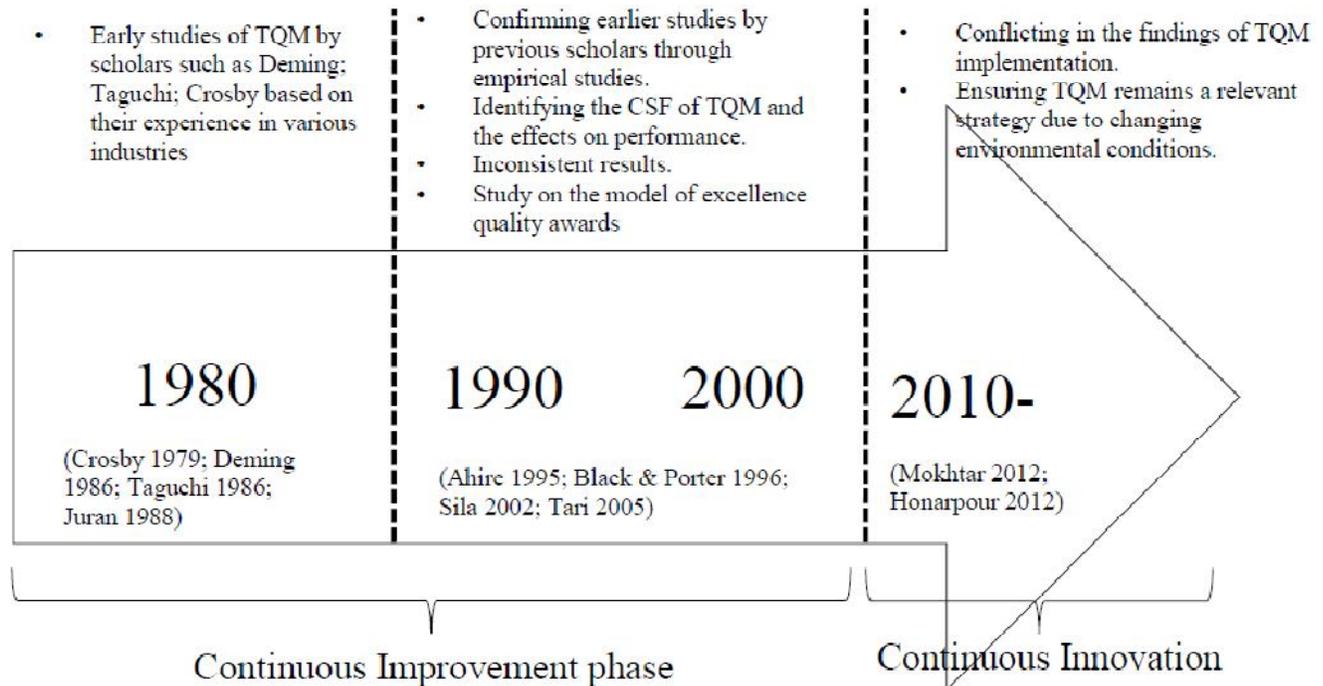
The adoption of innovation in SMEs should not only focus on the aspects of research commercialization and access to the national innovation system as reported in the SMEs Master Plan. This study will suggest that the adoption of innovations should be viewed in other critical aspects such as quality management. This study will also 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 (Ali et al., 2013; Ooi Boon Keng et al., 2012; Alolayyan et al., 2011; Ali et al., 2007; Prajogo & Sohal 2001; Cooper 1998). However, there is still lack of study that describes innovation as one of the key factors in the implementation of SMEs quality management. Therefore, this study will fulfill the need to examine the implementation of innovation in quality management which can further 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. Gabor (1990) quoted from the scholar of quality, W. Edwards Deming stressed to the importance of the organization response to make changes in line with environmental requirements. Organizations in business environment nowadays faced with various uncertain risks and threats. Therefore, immediate response and adaptation have been the keys to success and survival of an organization (Liao et al. 2010). Liao et al. (2010); Bolwijn and Kumpe (1990) 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.

Lack of response to the environment can resulted in TQM is in danger of being oversold, inappropriately implemented and being ineffective. It is important to realize that the business environment nowadays is increasingly characterized by uncertainty and instability. Does, to be competitive in this environment, companies have to transform themselves into more appropriate form by bringing flexibility into their operations. TQM has been considered as a basis to the productivity improvement, profitability and customer satisfaction for an organization. Even so, the market competition factor, cost, and consumer demand has prompted the organization to innovate. Effective quality management enables the organizations to have an edge over their competitors, since innovation is the driving force for further growth. Thus, the organization cannot overlook both factors. As a consequently, this study suggested that it is crucial to study the relationship and impact of quality and innovation.

The studies of the related literatures suggested that the study of TQM can be categorized into two development phases. The first phase is known as continuous improvement while the second phase is known as continuous innovation. Continues improvement refers to the agenda of verifying the quality of the findings of earlier scholars such as Deming, Juran, Crosby, and others. These past researchers had also identified the critical factors of TQM and their impact on organizational performance. Although there are many empirical studies conducted shows positive relationship between TQM and performance, there is still a question whether the quality management program really generates economic benefits or improve the performance. After becoming a debatable issue for years, the inconsistent findings have prompted scholars to conclude that; in addition to review the relationship of TQM on performance directly, it should be mediated by other constructs. Therefore, this study will attempt to categorize those efforts as the development of continuous innovation phase.

This study will also suggested that there is a need to examine the second phase which focused on the challenges in ensuring that TQM will remain relevant as an effective quality management strategy. As a result, innovation is regarded as the critical factors that must be taken into consideration when assessing the relationship between TQM on the performance of SMEs. The implementation of quality management or innovation should be done by all types of organizations regardless of its size. SMEs have to understand that quality management practices are not necessarily only suitable to be practiced by large companies and specific industries. The implementation of TQM can be adjusted and practiced and by SMEs. Therefore, the status of implementation of TQM in SMEs and its relationship to its performance requires for further study.



**Figure 1: TQM Research Development**

### 3. Literature Review

This study will focus on the critical success factors as part of TQM in quality management practices specifically for SMEs in Malaysia. The details are as follow:

#### 3.1 Management Commitment

Management commitment is one of the critical factors of TQM strategy that is often presented in the literature review (Crosby 1979; Lakhe & Mohanty 1995; Thiagarajan & Zairi, 1997). 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. 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 (Koehler & Pankowski 1996). 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 examine the relationship between management commitment and performance (Alolayyan 2011; Ali et al. 2007; Flynn et al. 1995; Powell 1995).

#### 3.2 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 (Srinidhi 1998).

In general, 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 regardless of its term duration.

Strategic planning in TQM strategy should consider the ability of the organization in implementing the strategies (Black & Porter 1996). Identification of organization's capability enables the effective implementation of TQM.

### **3.3 Customer Focus**

Studies conducted on the past literatures shows that the main goal of TQM is to fulfill the needs of consumers. Therefore, the implementation of TQM can be considered as a failure if value added service cannot be provided to the customers consistently (Thiagarajan & Zairi 1997). 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 (Hunt, 1995). To achieve these objectives emphasize should be given to the interaction between the organization their customers is very important (Flynn, 1995). From this interaction, the organization is able to determine the critical specifications for them to obtain vital information directly.

### **3.4 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 (Ahire et al 1996). In other words, the benchmark allows organizations to be constantly one step ahead of other competitors. Among the criteria that can be serve as a benchmark are the effectiveness of internal processes, customer and employee satisfaction. Undebatably, the benchmark can enhance various dimensions of organizational performance. As discussed in the previous literature, there is a correlation between benchmark and performance (Ahire et al. 1996; Arawati 2005).

### **3.5 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 (Ahire et al. 1996). Realizing the importance of the role of provider, Deming emphasized that an organization should stop the practice of choosing suppliers based on cost only. There is a need to build a solid relationship with qualified suppliers despite the small amount. Qualified suppliers are referred to the good, reliable, competitive and cooperative suppliers (Ahire et al. 1996). 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 importants of the relationship between suppliers and the organization performance (Ahire et al. 1996).

### **3.6 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 (Benavent et al. 2005). As described by Deming (1986), 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 and not only focusing on the product context and the direct process, as the management of the organization itself also needs to improve (Dean & Bowen 1994). 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 (Anderson et al. 1994; Flynn et al. 1995; Li et al. 2003).

## **4. TQM and SMEs Performance**

Apart from empirical studies that test and validate the critical factors in TQM, there are also a lot 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 (Flynn, Schroeder & Sakakibara, 1995; Arawati, 2005), local government (Khairul Anuar et al, 2001) and various service organizations. Powell (1995) 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 previous researchers 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 Madu et al. (1995) 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 customers satisfaction, employees 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 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 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.

According to the previous studies, these researchers have not reached an agreement on the best way to measure the success of SMEs. The previous studies also show the measurement of the performance of SMEs can be grouped into two categories which are the measurement of financial and non-financial aspects. The financial performance of SMEs can be assessed by viewing the profits, sales and return on investment. The researchers in this group felt that the company is considered as successful when there is an increase in sales. As for the non-financial aspect, success factors are as the ability of its employees or employees' personal satisfaction, or the extent of the contribution of products and services that will satisfy customer. There is conflict of the findings among researchers to measure the performance of an SME. Some only required to consider the financial factors while the other party thought otherwise. However, this study will take the approach as advocated by Wiklund (1999, 2005), in which financial and non-financial aspects complement each other and are able to give better impact than just considering from one approach only.

### ***5. Business Innovation as Intervening Variable***

Although modern business excellent management model considers the quality objectives and innovation simultaneously and complement each other; but in general business practice, it integrates the concept of quality management and then gradually integrates innovation. This pathway has received much attention from different theoretical perspectives, including resource-based view and dynamic capabilities (RBVDC) of the firm. This view describes the transition from product features to model management by considering how the firm generates organization resources that offers sources of competitive advantage (Rumelt 1984; Barney 1986; Peteraf 1993). In addition, the RBVDC is viewed using evolutionary perspective to explain the change in management priorities as path dependence and collection process, and in the pursuit of innovation performance which requires greater organizational complexity compared to quality (Foss 1993, Teece et al. 1997, Hodgson 1998).

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 be able to nurture the innovation. Empirical studies, however offer conflicting conclusions. Flynn (1994) dan Prajogo and Sohal (2003) showed a positive relationship between the implementation of TQM and technological innovation, while the study conducted by Singh and Smith (2003) Terziovski and Samson (1998) 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. Kinner (2009) classified innovation into two type: product and process innovation. In the context of manufacturing firm, product innovation covers the physical while process innovation, include organizational and technological aspects.

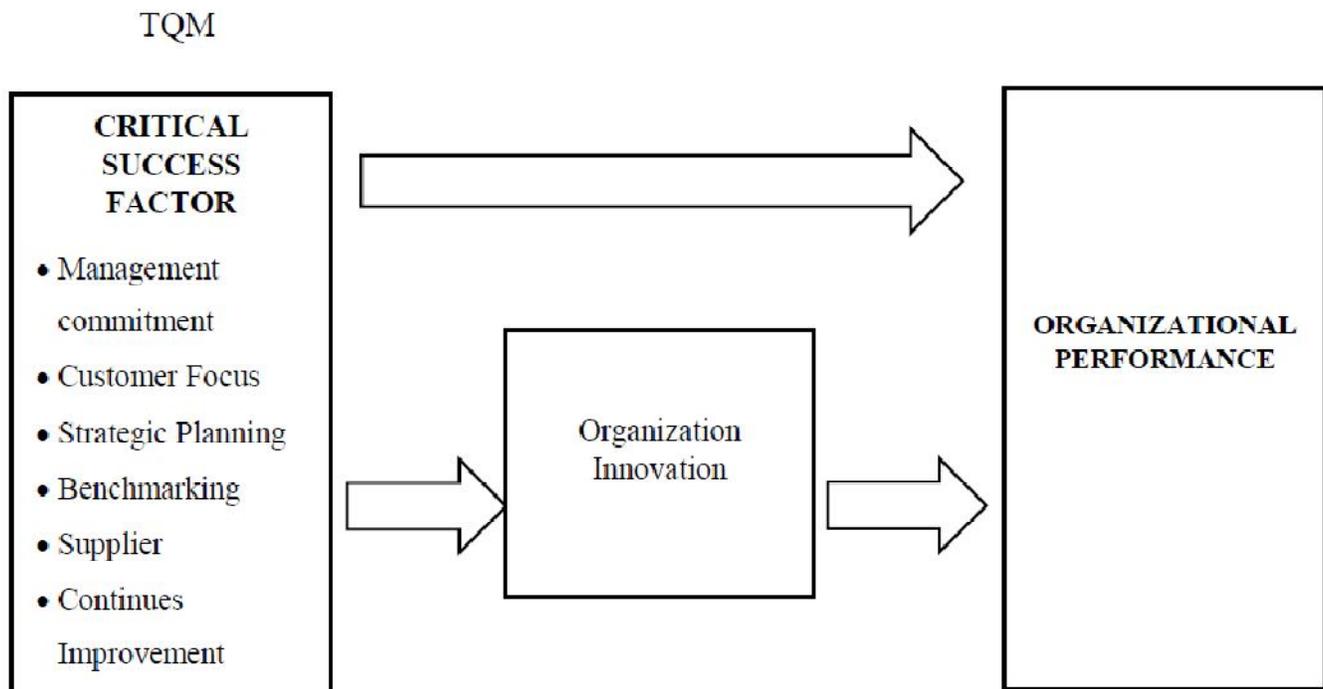
According to the contingent perspective for strategic management (Fry & Smith (1987), despite the implementation of TQM as a necessary prerequisite for greater innovation, it is still insufficient. Thus, the contingent variables change, improve or become an intermediate for the relationship.

In this case the Business Innovation Capability (BIC) act as an important contingent variable and takes the form of an interactive function. It can be formulated as a 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. In spite of the adoption of innovation in management excellence model and the consensus states that innovation offers a major source for sustainable competitive advantage; research on the relationship between TQM and innovation is still lacking (Flynn 1994, Prajogo dan Sohal 2003, 2004, Singh dan Smith 2003).

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 (Sousa & Voss 2002; Kaynak 2003). Efficiency, flexibility, quality and delivery time are considered as emerging research topics and become competitive priority for the management of the growing operation although the objectives and performance innovation are not included as the priority generic competition in most of the operations management research, (Pannirselvan et al. 1999; Wheelwright 1984; Corbett & Wassenhove 1993). Therefore, 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 principal brought by Deming which shifting from the continuous improvement to innovation.

**6. Conceptual Framework for Malaysia SMEs**

Based on an extensive review on previous literatures, a conceptual model was developed to show the relationship between the three variables and their performance as shown in Fig. 2. 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: (i) independent variable - the critical success factors; (ii) dependent variable – organization’s performance and (iii) intervening variables – organization innovation. Fig. 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.



**Figure 2: Conceptual Framework**

As discussed before, innovation has been proposed as an intervening variable that influences the relationship between TQM and organizational performance. Therefore, this study the researcher believes that the innovation capability will be intervene on performance of SMEs in Malaysia. Consequently, the intervening relationship is indicated by the arrow connecting the critical factors to the performance of the organization. Innovation at the centre acts as an intervening variable of the relationship as shown in Fig. 2.

## 7. 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 appear inefficient 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 research focused on the large-scale industries of manufacturing sector while SMEs is different with larger organizations in term of management style, production processes, capital and the ability to negotiate. Therefore, the SMEs should have its own way and strategy in the implementation of quality management. In addition, the important contribution of this study is to identify the critical success factors of TQM approach. Furthermore, the conceptual framework is proposed to assess the relationship between critical success factors and performance of SMEs. The empirical studies will be carried out latter using the proposed conceptual model to validate the hypotheses and answer the research questions.

## References

- Abdullah, M. M., Uli, J., & Tari, J. J. (2009). The importance of soft factors for quality improvement and organizational performance. *International Journal Productivity and Quality Management* 4(3): 366-382.
- Abdulsaleh, A. M., & Worthington, A. C. (2013). Small and Medium-Sized Enterprises Financing: A Review of Literature. *International Journal of Business and Management*, 8(14), 36–55.
- Ahire, S. L., Landeros, R., & Golhar, D. Y. (1995). Total quality management: A literature review and an agenda for future research. *Production and Operation Management* 4 (3), 227-306.
- Ali, K. A. M., Jemain, A. A., Yusoff, R. Z., & Abas, Z. (2007). Efficient cost management trough excellence quality management practices among local authorities in malaysia. *Total Quality Management* (18): 99-108.
- Ali, K. A. M., & Alolayyan, M. N. (2013). The impact of total quality management (TQM) on the hospitals performance: An empirical research. *International Journal of Services and Operations Management*, 15, 482-506.
- Alolayyan, M. N., Ali, K. A. M. Idris, F., & Ibrehem, A. S. (2011). Advance mathematical model to study and analyse the effects of total quality management (TQM) and operational flexibility on hospital performance. *Total Quality Management* (22): 1371-1393.
- Alolayyan, M. N., Ali, K. A. M., & Idris, F. (2013). Total quality management and operational flexibility impact on hospital performance: A structural modeling approach. *International Journal of Productivity and Quality Management* (11): 212-227.
- Anderson, J. C., Rungtusanatham, M. Schroeder, R. G. (1994). A theory of quality management underlying the Deming management method. *Academy of Management Review* 19 (3), 472-509.
- Barney, J., (1986). Organizational culture: can it be a source of sustained competitive advantage? *Academy of Management Review* 11, 656–665.
- Benavent, F. B., Ros, S. C. & Moreno-Luzon, M. (2005). A model of quality management self-assessment: An exploratory research. *International Journal of Quality & Reliability Management* 22 (5), 432-451.
- Black, S. A. & Porter, L. J. (1996). Identification of the critical factors of TQM. *Decision Sciences* 27 (1), 1-21.
- Corbett, C. & Wassenhove, L.V. (1993). Trade-offs? What trade-offs? Competence and competitiveness in manufacturing strategy. *California Management Review* 35 (2): 107–122.
- Crosby, P. B. (1979). *Quality is free*. New York: Mc Graw Hill.
- Dean, J. W., & Bowen, D. E. (1994). Management theory and total quality: Improving research and practice through theory development. *Academy of Management Review* 19 (3), 392-418.
- Deming, W. E. (1986). *Out of crisis*. Cambridge, MA: Massachusetts Institute of Technology Press.

- Fard, F. S., Naha, N., & Mansor, A. (2011). the critical success factors of performance measurement for malaysian smes in manufacturing sectorsL: a proposed framework, 2660–2686.
- Flynn, B. B., Schroeder, R. G., & Sakakibara, S. A. (1994). A framework for quality management research and an associated instrument. *Journal of Operations Management* 11 (4): 339-366.
- Flynn, B.B. (1994). The relationship between quality management practices, infrastructure and fast product innovation. *Benchmarking for Quality Management & Technology* 1 (1): 48–64.
- Foss, N. (1993). Theories of the firm: contractual and competence perspective. *Journal of Evolutionary Economics* 3 (2): 127–144.
- Fry, L.W. & Smith, D.A., (1987). Congruence, contingency, and theory building. *Academy of Management Review* 12, 117–132.
- Honarpour, A., Jusoh, A., & Nor, K. (2012). Knowledge Management, Total Quality Management and InnovationL: A New Look, 7(3), 22–32.
- Hodgson, G. (1998). Evolutionary and competence-based theories of the firm. *Journal of Economy Studies* 25 (1): 25–56.
- Hunt, V. D. (1995). *Quality management for government: A guide to federal, state and local implementation*. Milwaukee, Wisconsin: ASQC Quality Press.
- Kaushik, V. K. (2013). *LogForum for small and medium sized enterprises*, 9(3), 161–166.
- Khairul Anuar, M. A, Rushami, Z. Y. & Zakaria, A. (2001). The relationship between quality management practices and productivity in revenue and cost management: A study of Local Authorities in Peninsular Malaysia. *Malaysia Management Journal* 5 (1&2): 35 46.
- Kirner, E., Kinkel, S & Jaeger, A. (2009). Innovation paths and the innovation performance of low technology firm; an empirical analysis of German industry *Research Policy* 38: 447-458.
- Koehler, J. W. & Pankowski, J. M. (1996). *Quality government: Designing, developing and implementing TQM*. Florida: St Lucie Press.
- Lakhe, R. R. & Mohanty, R. P. (1995). Understanding TQM in service systems. *International Journal of Quality & Reliability Management* 12 (9): 139-153.
- Larimo, J. (2013). Small and Medium-Size Enterprise Export Performance. *International Studies of Management and Organization*, 43 (2), 79–100.
- Li, J. H., Andersen, A. R. & Harrison, R. T. (2003). Total quality management principles and practices in China. *International Journal of Quality & Reliability Management* 20 (9): 1026-1050.
- Liao, S.H., Chang, W.J., & Wu, C.C. (2010). Exploring TQM-Innovation relationship in continuing education: A system architecture and propositions. *Total Quality Management & Business Excellence*, 21 (11), 1121–1139.
- Madu, C. N., Kuei, C. & Lin, C. (1995). A comparative analysis of quality practice in manufacturing firms in the U.S. and Taiwan. *Decision Sciences* 26 (5): 621-635.
- Ooi, K.B., Lin, B., Teh, P.L., & Chong, A. Y.L. (2012). Does TQM support innovation performance in Malaysia’s manufacturing industry? *Journal of Business Economics and Management*, 13 (2), 366–393.
- Pannirselvan, G.P. 1999. Operations management research: an update for the 1900s. *Journal of Operations Management* 18: 95–112.
- Peteraf, M.A., (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic Management Journal* 14 (3), 179–191.
- Powell, T. C. (1995). Total quality management as competitive advantage: A review and empirical study. *Strategic Management Journal* 16 (1): 15-37.
- Prajogo, D.I. & Sohal, A.S. (2003). The relationship between TQM practices, quality performance, and innovation performance: an empirical examination. *International Journal of Quality and Reliability Management* 20 (8): 901–918.
- Prajogo, D.I. & Sohal, A.S. (2006). The relationship between organization strategy, total quality management (TQM), and organization performance – the mediating role of TQM. *European Journal of Operational Research* 168: 35-50.
- Rumelt, R.P. (1984). Toward a strategic theory of the firm, In: R. Lamb, ed. *Competitive strategic management*. New York: Prentice-Hall, 556–570.

- Sakiru, O. K., D'Silva, J. L., Othman, J., Silong, A. D., & Busayo, A. T. (2013). Leadership Styles and Job Satisfaction among Employees in Small and Medium Enterprises. *International Journal of Business and Management*, 8(13), 34–42.
- Singh, P.J. & Smith, A.J.R., (2003). Relationship between TQM and innovation: an empirical study. *Journal of Manufacturing Technology Management* 15: 394–401.
- Sousa, S., & Aspinwall, E. (2010). Development of a performance measurement framework for SMEs. *Total Quality Management & Business Excellence*, 21 (5), 475–501.
- Sousa, R. & Voss, C. (2002). Quality management re-visited: a reflective review and agenda for future research. *Journal of Operations Management* 20 (1): 91–109.
- Srinidhi, B. 1998. Strategic quality management. *International Journal of Quality Science* 3 (1):38-70.
- Teece, D., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal* 18 (7): 509–533.
- Terziovski, M. & Samson, D. (1998). The link between total quality management practice and organizational performance. *International Journal of Quality and Reliability Management* 16 (3): 226–237.
- Thiagarajan, T. & Zairi, M. (1997). A review of total quality management in practice: Understanding the fundamentals through examples of best practice application- Part I. *The TQM Magazine*, 9 (4):270-286.
- Wheelwright, S.C., (1984). Reflecting corporate strategy in manufacturing decisions. *Business Horizons* 21 (1): 57–66.
- Wiklund, J. (1999). The sustainability of the entrepreneurial orientation-performance relationship. *Entrepreneurship: Theory & Practice* 24:37- 49.
- Wiklund, J., & Sherpherd, D. (2005). Entrepreneurial orientation and small business performance: a configurational approach. *Journal of Business Venturing* 1:71-91.