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TQM and Malaysian SMEs Performance: The Mediating Roles of Organization Learning

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Abstract

The purpose of this paper is to explore the pertinent issues in the relationship between Total Quality Management (TQM) and SME performance. This paper also discusses the need for mediation in the relationship between TQM and SMEs performance, namely organization learning. The conceptual paper undertakes a thorough review of the relevant literature before developing propositions regarding practices of TQM, organization learning and performance of SMEs. The paper anticipates that TQM will support both organization learning and performance of SMEs. Future research should be conducted to carry out an empirical analysis to validate and/or modify the propositions presented in this paper.

Keywords: TQM; SMEs; organization learning; performance

1. Introduction

SMEs in Malaysia positively contribute to the development of the Malaysian economy and achievement of high-income nation status in year 2020. The Malaysian government has taken several steps to nurture this vision with the establishment of various programs such as the New Economic Model (NEM), Economic Transformation Programme (ETP), National Key Economic Areas (NKEAs), Strategic Reform Initiatives (SRIs), National SME Development Council (NSDC), SME Master plan 2012-2020, 10th Malaysian plan, with the objective of providing full assistance and opportunities for SMEs to develop either locally or abroad market. SME in Malaysia served an important role in

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the development of the Malaysian economy in 2010, contributing 99.2% of total business establishments in Malaysia, with a 32% share of GDP, 59% share of employment and 19% share of total exports (SME Masterplan 2012-2020). These figures demonstrate the importance of SMEs in shaping Malaysian economic landscape.

The success of SMEs has shown a direct positive impact on the economic growth and development in both developed and developing countries (Demirbag et al., 2006) and almost economies of all countries are influenced by performance of SMEs (Aharoni, 1994). Due to the significance of SMEs to local economies, it is crucial to study and evaluate their performance (Acs, 1999), including the discussion, investigation and review of factors relating to positive performance of SMEs and the rationale for selecting SMEs as a subject matter of investigation. This study is intended to investigate Malaysian SME performance and will fill research gaps by highlighting some managerial practices or organization factors which may be used to strategically improve the performance of SMEs. Some previous empirical studies have emphasized the role of Total Quality Management (TQM) (Mar Fuentes-Fuentes et.al, 2004); (Idris, 2011); (Valmohammadi, 2011); (Demirbag et al., 2006); (Salaheldin, 2009); (Rahman, 2001); (Terziovski & Samson, 1999) and (Feng et al., 2006) and organization learning (Michna, 2009) in improving the development of organization performance. However, few studies have investigated the effects of TQM on organization performance through the mediating effect of different strategic variables such as organization learning, leading a researcher to concentrate of this study as a central focus. Thus, the research questions for this study were formulated: Does TQM and organization learning influences SMEs performance? Is organization learning considered an important mediating effect on TQM and SMEs performance relationship?

2. Literature review

2.1. The Performance of SMEs

In order to provide a theoretical basis for the study, the authors reviewed previous studies on Malaysian SME performance in the management literature. Previous studies on SME performance in Malaysia were conducted in various areas of management. For instance, some studies conducted in area of marketing (Idar & Mahmood, 2011 & Hakimpoor, 2011), human resource (Ngah & Ibrahim, 2009; Zakaria, 2011), finance (Ali et al., 2011, Devinaga & Tan, 2012), knowledge management (Daud, Fadzilah, & Yusoff, 2010, Denan, Ismail & Ramayah, 2012), leadership (Khademfar & Amiri, 2013) strategic planning (Kee-luen et al., 2013), quality management (Ng & Jantan, 2010, Abdullah; 2010, Sohail & Hoong, 2003) and innovation management (Yahya et al., 2011; Ngah & Ibrahim, 2009). However, a search of the literature shows a gap in previous studies in Malaysian SMEs focusing on more than one variable as a predictor of SME performance. Furthermore, this study determines the problems or issues associated with SMEs performance. Previous researchers stressed that one of the issues most frequently related to the failure of the SMEs in developing countries was that of managerial problems (McCormick & Pedersen, 1996; Van Dijk & Rabellotti, 1997). In this study, the authors focus on two major managerial problems that influence the performance of SMEs, namely quality management and organization learning.

2.2. Quality Management, Organization Learning and SMEs Performance as Managerial Problems

Despite the benefits of quality management systems to organizations, SMEs tend to avoid these management practices. Jennings & Beaver (1997) argued that the lack of owners or managers practicing quality management has been identified as one of the major causes of SME failure. As for Malaysian SMEs, implementation rates are low and slow. Only a small numbers of Malaysian SMEs have reached a stage of development and are able to practice TQM in effective ways (Idris et al., 1996). Moreover, the implementation of TQM in Malaysia is still problematic (Zadry & Yusof, 2006). This is due to problems that many SMEs face in the early stage of TQM implementation (Tannock et al., 2002; Temtime, 2003). For instance, financial, technical constraints and lack of management experience are the main problems that SMEs face, which limit TQM implementation in SMEs (Lee & Oakes, 1995).

Another issue related to high failure rate of SMEs is limited knowledge of organization learning. As reported by Dalley & Hamilton (2000), many SMEs do not concentrate any resources on improving their organization learning orientation, hindering them from acquiring information both internally and externally. Nafukho et al., (2009) added

employees of small firms tend to continue using familiar techniques and avoid learning, assimilating and institutionalizing knowledge within their organization. Hence, many SMEs are unaware of the need of organization learning and its impact to firm performance. Wong & Aspinwall (2004) indicated that small firms generally lack proper understanding of knowledge management and are slow in adopting such practices systematically, making it difficult to become a learning organization. There are several reasons SMEs might ignore the need for organization learning. These issues influence the distinctive capabilities of a firm. According to Hashim (2005), many previous empirical studies indicated that SMEs are faced with many distinctive capabilities that can affect performance. This author also exposed various knowledge and skills that SMEs typically lack, such as lack of managerial skills and technical expertise marketing techniques and strategy, limited knowledge of and accessibility to new technology and shortage of skilled labour. Moreover, Saleh & Ndubisi (2006) stated that the most significant challenge faced by Malaysian SMEs is lack of human capital, as it is difficult to employ a professional and competent workforce. Developing skills and knowledge in an organization is crucial; this can be achieved through organization learning.

Studies of firm performance investigate ways to improve firm performance and the factors or predictors of firm performance (March & Sutton, 1997). This is crucial in investigating the performance of SMEs because it is harder to sustain growth of a firm without performance (Aldrich, 1986). It is important to assess the performance of SMEs (Vickery et al., 1993). Pasanen (2003) indicated the performance of SMEs can be affected by a variety of interrelated factors that need to be focused for the sake of business survival; this statement was supported by Tahir et.al (2011) who argued that performance of SMEs can be improved by identifying the factors influencing performance. However, there is a gap in previous studies that examine the factors influencing performance of SMEs in Malaysia (Moorthy et al., 2012). Hence, this study is pertinent and sufficiently justified the study of quality management, organizational learning and performance.

2.3. Operations Management and TQM

Some studies in the area of operations management focusing on supply chain management (Koh et al., 2007), inventory management (Narayanapillai, 2010), six sigma (Kumar, Antony, & Douglas, 2009), quality certification (Ilkay & Aslan, 2012) and TQM (Demirbag et al., 2006; Salaheldin, 2009; Valmohammadi, 2011). The rationale of choosing TQM as area of concentration is the need to understand this important subject in the area of operations management. According to Samson & Terziovski, (1999) & Nair (2006), TQM is one of the most important topics in operations management research and has received high attention in the last two decades (Jung & Wang, 2006). However, many previous studies which examined the relationship between TQM and business performance focused on large organizations and were limited in terms of empirical evidence focusing on SMEs, (Parkin & Parkin 1996; Walley, 2000; Kuratko et al., 2001; Rahman, 2001; Petroni, 2002; Seth & Tripathi, 2005) especially in developing countries, (Koh et al., 2007) in ASEAN countries (Arumugam et al., 2008) and emerging market economies (Demirbag et al., 2006). Also, the application of the quality management concepts in SMEs and its impact on business performance has not yet been clearly understood (Gadenne & Sharma, 2009). For Malaysia, only a few empirical studies have been conducted relating to TQM practices and organizational performance (Sohail & Hoong, 2003) and there is a little knowledge on how TQM has been applied in Malaysian SMEs (Eng & Yusof, 2003). Hence, a research focusing on TQM and SMEs performance is needed as suggested by Temtime & Solomon (2002) who urged researchers to do some development and introduction of TQM implementation framework for SMEs in developing countries.

2.4. TQM and Organization Learning

A part from TQM, organization learning is another managerial practice which can influence a business performance of a firm. According to previous researchers, organization learning is a basis for gaining a sustainable competitive advantage and a key variable in the enhancement of organizational performance (Fiol & Lyles, 1985; Stata 1989; Garvin, 1993; Brockmand & Morgan, 2003). In fact, there have been several attempts by previous researchers to relate TQM, organization learning, and their impact to business performance. For instance, Choo et al., (2007) indicated that many researchers have recently linked quality management practices with organization

learning in order to demonstrate how quality management leads to continuous improvement. Moreover, several authors have stated that the TQM strategy can be used by a firm to enhance learning in an organization (Terziovski & Samson, 2000; Walley, 2000; Martinez-Costa & Jimenez-Jimenez, 2008). According to Barrow (1993), organization learning is the outcome or product of TQM and these two variables are closely related. This means that TQM companies tend to learn more than other companies (Martinez-Costa & Jimenez-Jimenez, 2008). Organization learning has recently started to become an increasingly important area of research (Michna, 2009). This is due to the intention of the researchers to examine how organization learns and what is the impact to a firm in terms of competitive advantage, innovativeness and effectiveness (Shahin, 2010). Despite a few researchers revealing a positive relationship between TQM and organization learning, there is dearth of empirical and quantitative evidence relating the two managerial practices (Hung et al., 2011) thus more studies focusing on organization learning especially into SMEs and competence variables such as TQM are needed (Chaston et al., 2001). The rationale of focusing with these variables in the context of SMEs is due to the fact that these popular concepts remain unexplored but may provide great benefits in terms of knowledge and practices (Hashim, 2005).

2.5. Total Quality Management (TQM) Practices

There is no universal or consensus definition of TQM (Rungtusanatham et al., 2005) and numerous parties including academicians, scientist, practitioners, engineers and others have come up with various definitions (Besterfield, 1995). For instance, Porter & Tanner (2001) defined TQM as a business process focusing on improving organizational effectiveness, efficiency and responsiveness to customer needs by actively involving people in process improvement activities. Previous authors have indicated that TQM is a management practice which can improve quality of a products or services. It is therefore important to discover and identify a particular quality and its implication. Quality can be defined differently due to the fact that people might view quality in relation to differing criteria based on their individual roles in the production-marketing chain (see Evans & Lindsay, 2002, pp: 11). Sila (2007), based on an extensive reviewing of the TQM literature, found that there are seven major categories of practices measured in previous studies, namely leadership, strategic planning, customer focus, information and analysis, human resource management (HRM), process management, and supplier management. These practices, excluding supplier management, are consistent with the criteria that used in Malcolm Baldrige National Quality Award (MBNQA). These six practices are also seen in previous studies (for example; Prajogo & Sohal, 2003; Prajogo & Hong 2008). Hence, these criteria will be used in this study based on several factors. They are popular and have been widely accepted as a basic model in recent TQM studies (Evans & Lindsay 1999; Jung & Wang, 2006; NIST, 2012). Next, these criteria are very suited to Malaysian firms as the same criteria are used for excellence award purposes. For instance, the Quality Management Excellence Award (QMEA) of the Ministry of International Trade and Industry and Prime Minister's Quality Award (PMQA) used the criteria of MBNQA (National Productivity Centre, 1993; Ministry of International Trade and Industry, 1998).

2.6. Organization Learning

Over the past decade, organization learning has been established as an important capability for achieving competitive advantage (Brockman & Morgan, 2003). Senge (1990) defined organization learning as a dynamically balanced relationship in which organizations acquire external knowledge and further adjust organization activities. Another way to define organization learning is as a dynamic process of creation, acquisition and integration of knowledge aimed at the development of resources and capabilities that contribute to better organizational performance (Lopez et al., 2005). According to Reynolds & Ablett (1998) organization learning involves employees making themselves familiar with the structure and culture of a company through the acquisition of skills and knowledge from induction training. In addition, organization learning is where learning that changes behaviour of individuals or groups within the organization takes place (Reynolds & Ablett, 1998) resulting from a process in which an individual acquires knowledge, skills, attitudes and opinions (Illeris, 2004) and "the process of improving actions through better knowledge and understanding..." (Fiol & Lyles, 1985 p. 803). There are three steps involved in developing organization learning. As stated by Garvin (1993), these three steps are cognitive, behavioural and

performance improvement. Cognitive involves exposure to new ideas and force them to think differently. Then, the behavioural step involves the individual beginning to change their behaviour due to new information that has developed during first stage. Next, performance improvement occurs due to cognitive and behavioural changes.

3. Theoretical and Hypothesis Development

3.1. TQM and SMEs Performance

Studies regarding TQM have been applied to SMEs by previous scholars. This is due to the dominant role played by SMEs in most developed and developing countries. Some have indicated that SMEs place high emphasis on performance in such areas as greater market focus, efficient use of material and human resource and improving business competitiveness in the market through the application of quality management in the firms (Ahire & Golhar, 1996; Temtime & Solomon, 2002). There have been a number of studies concerning TQM and SMEs performance. (Salaheldin, 2009) conducted a study focusing the relationship between TQM and SMEs performance from the perspective of 139 SMEs in Qatari industrial sector. The finding shows that there is a substantial positive effect of the TQM implementation on both the operational and the organizational performance. (Demirbag et al., 2006) conducted a study to determine the critical factors of total quality management (TQM) and measure their effect on organizational performance of SMEs operating in the Turkish textile industry. With 163 questionnaires returned, data analysis revealed a strong positive relationship between TQM practices and non-financial performance of SMEs, while there was only weak influence of TQM practices on financial performance of SMEs. (Valmohammadi, 2011) examined the effects of the seven TQM dimensions, namely leadership, process management, supplier, customer focus, employee management, communication and quality information system and tools and techniques on the organizational performance of the Iranian manufacturing SMEs. SME performance was measured by profitability, customer satisfaction, sales growth, and employee morale and market share. A statistical analysis on 65 samples revealed a number of significant relationships between TQM practices and organizational performance of the manufacturing SMEs. The result also indicated that leadership and process management play an important role in enhancing organizational performance of the Iranian manufacturing SMEs. Based on the above statement and evidences, the researcher expects:

H1: TQM will be positively related to SME performance

3.2. TQM and Organization Learning

Barrow (1993) noted that TQM is closely related to organization learning and expresses organization learning as an expected product of TQM. Barrow's study shows that when instituting TQM principles, companies should focus on learning at the following three levels: individual, group, and organization levels. This process familiarizes individuals with new techniques and information and assists organizational groups to complete projects and distribute relevant knowledge. The implementation of TQM principles also helps organizations learn methods for improving productivity. Alternatively, the diversity of TQM dimensions reflects the wide-ranging characteristics of organizational cultures (Zeitz, Johannesson, & Ritchie, 1997). Additionally, many consider TQM to be an enabler and initial factor in shaping corporate learning culture. Mechanisms for organization learning allow companies to apply cooperative relationships and acquire resources that compliment organization or capabilities in cooperative research and development processes (Van Aken & Weggeman, 2000). Organizations that successfully implement TQM can easily develop cultures that foster knowledge sharing and are suited to cross-functional team knowledge transfer (O'Dell & Grayson, 1998). According to Martinez-Costa & Jimenez-Jimenez (2008), TQM companies tend to learn more than other companies. This study therefore posits that TQM has a positive effect on organization learning. This study was also supported with findings from (Hung et al., 2011). That study examined the relationship between dimensions of TQM, namely top management support, employee involvement, continuous improvement and customer focus, along with two dimensions of organization learning, namely learning culture and learning strategy. Findings derived from a sample of Taiwanese high-tech industry companies showed a significant relationship between TQM and organization learning. Based on these arguments, the hypothesis is:

H2: TQM will be positively related to organization learning

3.3. Organization Learning and SMEs Performance

Organization learning is a basis for gaining a sustainable competitive advantage and a key variable for the enhancement of organizational performance (Brockmand & Morgan, 2003; Fiol & Lyles, 1985; Garvin, 1993; Stata, 1989). Firms that are able to learn stand a better chance of sensing events and trends in the marketplace (Sinkula, 1994; Tippins & Sohi, 2003). As a consequence, learning organizations are usually more flexible and respond faster to new challenges (Slater & Narver, 1995), enabling them to maintain long-term competitive advantages (Dickson, 1996). Numerous studies have shown that cultures which promote organization learning improve individual, team, and organization learning, and as a result, improve organizational performance (Egan et.al. 2004). Some studies also show a positive relationship between organization learning and firm performance. For instance, Baker & Sinkula (1999) found that learning orientation has a direct effect on organizational performance. Other studies, also using a culture measure of learning, have found similar results (Keskin, 2006; Ussahawanitchakit, 2008). Bontis et al., (2002) also provided evidence of a positive relationship between organization learning and performance, but they focused on the stocks of learning at three levels: individual, group and organization. An empirical study conducted by (Michna, 2009) focusing on 211 enterprises in Polish SMEs showed an empirical relationship between organization learning and organizational performance. In practice, this means that organizations which reach a higher level of organization learning probably achieve higher performance. Considering the above evidence, it is hypothesised that:

H3: Organization learning will be positively related to SME s performance

3.4. Organization Learning Mediate TQM and SMEs Performance

Martinez-Costa & Jimenez-Jimenez (2009) conducted a study focusing on small Spanish firms which revealed the relationship between TQM, organization learning and SMEs performance using structural equation modelling. This study found organization learning measured by knowledge acquisition, information distribution, information interpretation, and organizational memory mediated the relationship between TQM and SMEs performance. They also concluded that small businesses should focus more on TQM practices, as this may support both knowledge management practices and performance of the firms. (Hung et al., 2011) tested a proposed model explaining the relationships among TQM, organization learning, and innovation performance through empirical examination. Using structural equation modelling on 223 samples from the Taiwanese hi-tech industry, they found that the TQM-organization learning-innovation performance model demonstrated goodness-of-fit, and concluded that organization learning partially mediated the effect of TQM on innovation performance (measured by product and service innovation, process innovation and organizational performance). Considering the above, it is proposed that:

H4: Organization learning will mediate the relationship between TQM and SMEs performance

3.5. The Conceptual Framework

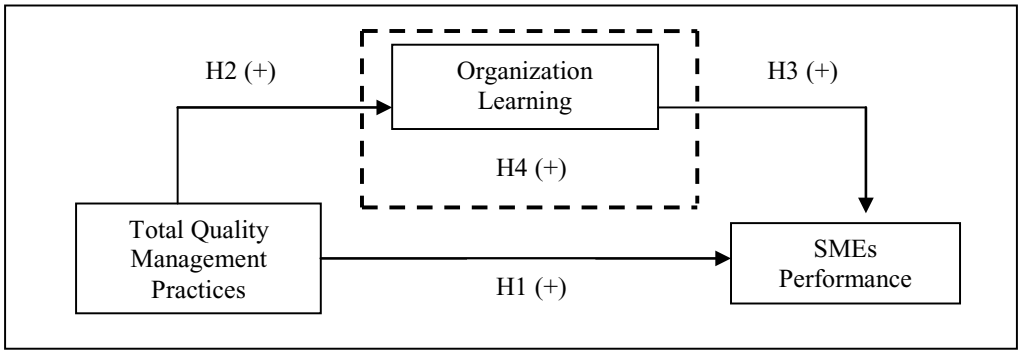

Figure 1.1: The Conceptual Framework.

4. Discussion and Conclusion

The proposed framework focuses on examining the mediating effect organization learning on the relationship between TQM and SMEs performance. The competitive nature of modern-day business forces a firm to continuously improve business performance. This can be done by developing a quality culture and applied the principles of TQM. Companies large and small, in the manufacturing and service sector, multinational (Demirbag et al., 2006) and developed and developing countries (Adam et al., 1996) have applied the principle of TQM that can generate more benefits and advantages. This proposed study will deal with how SMEs gain benefits through TQM practices in enhancing the success of organization learning capability, thus having a positive impact on performance. Moreover, findings from this study may also provide better understanding of the effect of mediator on the relationship between TQM and SMEs performance. The need of a mediator for this relationship is because previous studies have a mixed and inconsistent result; thus, many scholars make some conclusion to include other factors as a mediator to this relationship (TQM-business performance), (Maçães et al., 2007). The mediator variable of this study, namely organization learning, will hopefully serve as a positive indirect relationship between TQM and business performance and at last provide a new theoretical contribution. In fact, several gaps in this research field remain due to few studies performed in such a way that the relative factors of TQM affect SME performance in terms of the organization learning variable. Finally, previous authors in this field recommended that SMEs invest and practice this managerial practice, namely TQM and organization learning. These valuable tools can be a source of competitive advantage which can make SMEs competitive, just like large companies.

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