

ADVANCED INTERNATIONAL JOURNAL OF
BUSINESS, ENTREPRENEURSHIP AND SMES
(AIJBES)www.aijbbs.comTOTAL QUALITY MANAGEMENT (TQM) ENABLERS AND
STRATEGIC IMPLEMENTATION MODEL FOR MALAYSIAN
MANUFACTURING SMALL AND MEDIUM ENTERPRISESAzizan Abdullah^{1*}¹ Department of Entrepreneurship and Marketing Studies, Universiti Teknologi MARA Malaysia
Email: azizan629@uitm.edu.my

* Corresponding Author

Article Info:**Article history:**

Received date: 01.05.2024

Revised date: 13.05.2024

Accepted date: 15.06.2024

Published date: 30.06.2024

To cite this document:

Abdullah, A. (2024). Total Quality Management (TQM) Enablers And Strategic Implementation Model For Malaysian Manufacturing Small And Medium Enterprises. *Advanced International Journal of Business Entrepreneurship and SMEs*, 6 (20), 331-347.

DOI: 10.35631/AIJBS.620027.

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)**Abstract:**

Small and Medium Enterprises (SMEs) contributed significantly to the Malaysian economy with 99% of business establishment. The contribution of SMEs to the GDP increased to 38.4% in 2022 as compare to 37.4% in 2021. They employed 7.32 million workers or 47.8% share to Malaysia employment and contributing substantial amount of RM580.4 billion or 38.4% in 2022 to the Malaysian GDP as compare to 2021 with RM520 billion or 37.4% (DOSM, 2023). Services and manufacturing sectors uphold their position as the main contributors to SMEs' GDP, accounting for an 84.6% per cent share. The transformation and sustaining of the competitiveness of the service and manufacturing sector were among the major factors in determining the pace of economic activity for Malaysia. Therefore, strategies of the Twelfth (12th) Malaysia Plan (2021-2025) was specifically designed to help the development of SME businesses to be more competitive in the market. Through an extensive literature review and interviews with academic experts in the field of TQM, the objectives of this study were designed to identify the enablers of successful TQM implementation, to determine what are the most contributing enablers as a result of TQM implementation and established strategic models engaged by Malaysian SME businesses. The self-administered questionnaire distributed to Malaysian SMEs to gain a general understanding of TQM implementation from the perspective of senior business managers. The finding indicates four enablers significantly contributed to the performance of organizations that includes customer focus, people's involvement, leadership and continuous improvement. As such it is reflected the importance to reinforce the role of management as systems designers in designing effective systems that are capable of sustaining levels of high performance.

Keywords:

Enablers, Performance, SMEs, Strategic Implementation Models TQM

Introduction

Malaysia is an industrialised country and contributed significantly to the global economy with 1.0% out of 35% grown over the past ten years from 2013 to 2023 (World Economic Research, 2024). The new policy and implementation framework as documented in Twelfth (12th) Malaysia Plan (2021-2025) has been drawn up and outlines the goals for national prosperity over the coming years. The aim of Malaysia Plan is to obtain greater impact and performance from the country's development efforts towards achieving industrialised country and to enhance manufacturing sectors through the adoption of strategic programmes to compete globally and against more established producers such as Japan and South Korea. Although COVID-19 pandemic outbreak in March 2020 affected global economy, however the contributions of manufacturing SMEs is still significant.

The transformation and sustaining of the competitiveness of the manufacturing sector were among the major factors in determining the pace of economic activity for Malaysia. In the Tenth (10th, 2011-2015) and Eleventh (11th, 2016-2020) of Malaysia Plan, the manufacturing sector contributed substantially to output growth, exports and employment creation. The main goal of this plan is upscaling the manufacturing sector towards higher value-added activities and to transform the performance of SMEs into strong knowledge-intensive, value-creating, manufacturing and service entities. Greater emphasis placed on technology and innovation especially investment in the new areas of growth and international networking. These changes fundamentally lead to both the efficiency and effectiveness requirements of SME businesses regardless of whether they are owned by local or international businessmen (Razali et al., 2018; Chan, et.al., 2017). However, SME businesses have many constraints that inhibit them to propel as expected. They need to implement best practices such as TQM or other quality improvement initiatives to ensure and sustained their competitiveness in the market. Malaysia government provided a strong support to SMEs through budget allocation every year without fail and established special agency to help them facing challenges in business.

Therefore, the purpose of this study is to identify the enablers of TQM implementation, determine the most contributing enabler to organization performance as well as establish a strategic TQM implementation model for SMEs. It is hope that the finding will be beneficial to government agencies for decision making, SME businesses at large, institution of higher learning and any interested parties.

Definition Of Malaysian SMEs and Characteristics

Malaysian SMEs definition was based on sales turnover and number of full-time employees. In the case of manufacturing sector, SMEs are defined as firms with sales turnover not exceeding RM50 million or number of full-time employees not exceeding 200 persons. On the other hand, services and other sectors are defined as firms with sales turnover not exceeding RM20 million or number of full-time employees not exceeding 75 persons (SME Corp, 2022). The details definition of each category is displayed in Table 1.

Table 1: Definition of Malaysian SMEs (SME Corp, 2022)

Category	Manufacturing	Services and Other Sectors
Medium sized enterprises	Sales turnover: RM15 mil \leq RM50 OR Employees: From 75 to \leq 200	Sales turnover: RM3 mil \leq RM20 mil OR Employees: From 30 to \leq 75
Small sized enterprises	Sales turnover: RM300,000 < RM15 mil OR Employees: From 5 to < 75	Sales turnover: RM300,000 < RM3 mil OR Employees: From 5 to < 30
Micro enterprises	Sales turnover: < RM300,000 OR Employees: < 5	Sales turnover: < RM300,000 OR Employees: < 5

SMEs enhancing the dynamism and competitiveness of the Malaysian economy especially in the manufacturing and service sectors. They are also built linkages with large corporations as well as with multinational companies (MNCs).

In term of characteristics, SMEs have been very different from large organisations (Fernandez, A. and Rosas, C. 2019; Utami and Lantu, 2014). The most typical factor that distinguishes SMEs from larger organisations is the operating system within their organisations (Wiklund and Wiklund, 1999; Klewiz and Hansen, 2014). The operating system includes flat structures, few management layers, simple and flexible processes and a fire-fighting mentality (Ghobadian and Gallear, 1997; McAdam, 2000; Macias, G. and Juarez, S., 2017). SMEs tend to be more dynamic and flexible as compare to larger businesses. However, they are lack the formalisation, resources and role definitions associated with TQM. SME businesses therefore face many constraints that inhibit the implementation of TQM.

Addressing the constraints that affect small businesses, it can be seen small businesses do not have easy access to production technology and customers are concerned when they are dependent upon a small business. The lack of resources has a fundamental impact upon TQM implementation, for instance key management personnel do not have time to attend lectures, business systems are less formalised and adopting digital technology is critical. These issues do have an impact on TQM implementation and it is a wake-up call for much greater management involvement and sacrifice to ensure success (Storey, 1992). These constraints were considered beneficial to the study because the role of management as system designers implies in designing effective systems.

Research Objectives

Although global economics badly effected with COVID-19 pandemic five years ago (2019-2020), the study of TQM application at SME businesses are still relevant and firmly established as a research agenda of academic, management and national importance nowadays. Therefore,

the following research objectives were crafted to capture the essence and focus the subsequent direction of the study:

- a) To identify the enablers of TQM implementation in SME businesses.
- b) To determine the most contributing enabler to organizational performance.
- c) To establish a strategic TQM implementation model for SME businesses in the specific context of Malaysia.

The objectives highlight the need to identify enablers and develop a strategic model for TQM implementation and sustainable improvement.

The Review of Literature

Total Quality Management (TQM)

Total Quality Management is a concept that emphasizing on the continuous improvement of product and service quality to satisfy customers need and enhance productivity of organizations. Many scholars in the literatures have seen TQM as a holistic system incorporating all the organizations. For instance, Miranda Silva et. al (2014) perceived that TQM values and beliefs as a basis of organizational culture contributed to distinctive TQM capabilities and sources of competitive advantage. This segmentation has been frequently used and successfully adopted in many studies to examine TQM implementation and critical success factors according to the various ways in which practices are segmented (Addis, 2020). However, Jaeger and Adair (2016) looked at different perspective where they claimed that most TQM attempts unsuccessful in developing countries due to lack of understanding the key principles and practices of TQM itself. Although there is a lack of consensus among researchers on the best core and infrastructure practices (Laohavichien et al., 2011; Dubey, 2015), but most used practices of top management support, workforce management, customer focus, and supplier management as infrastructure practices, and process management, information and analytics, and product design as core practices with some variations in the terminologies.

A number of studies conducted by previous researchers to identify the impact of TQM toward performance and most of them agreed of its significant contribution to the SMEs. Table 2 indicates the previous studies and their findings.

Table 2: Previous Studies of TQM and SMEs Performance

Authors	Findings
Ahinfu et al., 2023; Acquah et al., 2023; Khalfallah et al., 2021; Kafetzopoulos et al., 2019, Abdullah, A, 2010.	Total quality management (TQM) is recognized as a strategic tool to for companies' performance.
Adem and Viridi, 2023; Do et al., 2021; Bhaskar, 2020; Hilman et al., 2020; Lakhal et al., 2006; Demirbag et al., 2006, Psomas et al., 2016; Zeng et al., 2015.	The study was conducted in developed and developing countries and indicates that TQM have a positive impact on performance of SMEs.

Do et al., 2021; Psomas and Jaca, 2016; Kafetzopolous et al., 2019; Youssef and Youssef, 2018; Bouranta et al., 2017	Many empirical studies have confirmed the positive effect of TQM toward performance.
Khalfallah et al., 2020; Sila, 2007	TQM as an integrated approach negatively influences companies' performance.

TQM Enablers

A detailed review revealed that there were various TQM enablers and concepts has been highlighted in the literature contribute performance of the organizations. However, this study will be focussing on five major elements due to the fact that those elements have a great discussion in the literatures as indicated in Table 3.

Table 3: TQM Enablers Highlighted in Literatures

TQM Enablers	Author's
Customer Focus	Hackman and Wageman (1995); Zakuan et al., (2010); Flynn et al., (1995); Phan et al., (2011); Zu, (2009), Lakhali et. al. (2006), Abdullah. A. (2010); Kanapathy et al. (2017)
Leadership	Flynn et al., (1995); Ooi et al., (2012); Zu, (2009); Peters et.al., (2014); Ooi et al., (2008); Talib et al., (2013) Prajogo and Brown, (2004); Patyal and Koilakuntla, (2015). Rahman and Bullock (2005); Jung et al. (2009)
People's Involvement	Patyal and Koilakuntla, (2015); Zu, (2009); Prajogo and Sohal, (2003); Gerdenitsch et. al., (2015); Talib et al., (2013); Zu, (2009); Prajogo and McDermott. (2005)
Process Approach	Laohavichien et al. (2011); Goldkuhl and Lind, (2008); Abdullah and Tar, (2012), Abdullah, A. (2010); Yunis et al. (2013); Yazdani et al. (2016); Reinaldo et al. (2020)
Continuous Improvement	Rijnders and Boer, (2004) Khan et. al. (2019); Martin and Osterling (2017); Kumar et al., (2018); Ward and Sobek, (2014); Gadenne and Sharma, (2009), Abdullah, A. (2010)

Customer Focus

Hackman and Wageman (1995) stated that customer focus is one of the most widely implemented TQM practices in organizations. Companies should establish and maintain open communication channels to involve customers in quality improvement initiatives, respond to their needs and continuously measure customer satisfaction to help improve the overall quality performance (Zakuan et al., 2010). Many studies have revealed the positive indirect impact of customer orientation on quality performance (Flynn et al., 1995; Phan et al., 2011; Zu, 2009). Customer focus is expected to have a beneficial indirect effect on quality by reducing process variability and improving product designs.

Leadership

Leadership commitment and support is considered some of the key quality management practices that drive quality performance (Flynn et al., 1995; Ooi et al., 2012; Zu, 2009). The management should accept responsibility for quality, provide a guidance to all initiatives for quality performance improvement, support quality improvement efforts and make quality as a strategic movement of the organization (Peters et.al, 2014; Ooi et al., 2008, Talib et al., 2013). Several studies have demonstrated the positive impact of leadership on quality performance (Flynn et al., 1995; Prajogo and Brown, 2004; Patyal and Koilakuntla, 2015).

People's Involvement

Employees consider as an asset to organization and therefore should be treated properly. They are vital for quality performance improvement of the organizations (Patyal and Koilakuntla, 2015; Zu, 2009). Organizations should recognize employee's contribution to quality performance, encourage quality teamwork, provide training and education on latest quality tools and techniques and involvement in quality management decisions (Hill and Bartol, 2016). Most of studies have reported a strong association between people's involvement and various performance measurement indicators, including quality performance (Prajogo and Sohal, 2003; Gerdenitsch et. al., 2015; Talib et al., 2013; Zu, 2009).

Process Approach

This principal focusses on efficiency and effectiveness of the process employed by organizations. A process is a sequence of steps involving inputs from suppliers and transform into output (final products) by organizations before deliver to customers. The aim of this approach is to reduce costs, eliminating bottle neck and improving consistency. It involves quality control compared with standards and takes corrective actions (Goldkuhl and Lind, 2008).

Continuous Improvement

Continuous improvement refers to the planned, organized and systematic process of organizational practices (Rijnders and Boer, 2004). Continuous improvement or kaizen in Japanese aims to solves operations problems in organization for the short term and long term (Khan et. al. 2019). It ended up becoming the process of continuous improvement par excellence (Kumar et al., 2018). According to Martin and Osterling (2017), continuous improvement is based on three fundamental principles which consists of feedback from employees and customers, efficiency in identifying, reducing or eliminating operations problems and evolution of incremental and continuous development. The result of continuous improvements reflected in the increase of service quality and products and processes (Ward and Sobek, 2014).

TQM Implementation Models

Majority of the TQM implementation models proposed in the literature have been derived from the study of larger organisations instead of SMEs (Husband and Mandal, 1999; Lee, 2004, Zhou, 2016). Lack of contingencies and constraints of the SMEs firm such as resources, scale and standardization were not taken into consideration. As a result, the rate of implementation of quality models among SMEs is lower compared to larger organisations (Rahman and Bullock, 2005; Modgil and Sharma, 2017). TQM implementation models offers to the management understanding the status of their organisation in term of the development of TQM and enablers that lead to high performance. There are three main models that have been widely used throughout the world, namely, the Deming Award, the Malcolm Baldrige National Quality Award (MBNQA) and the European Quality Award (EQA). Each award focuses on the management activities of an organisation, behavioural and process rather than product or service perfection (Ghobadian and Woo, 1996, Snyder, 2007).

There were some common features used by the three main awards as criteria for assessment, which includes leadership, human resources and process management. The award criteria allow organisations to have an understanding of TQM principles and the underpinning concepts. The Deming Award focuses on policies, implementation plans, information gathering, analysis and control and future plans for improvement. This award is emphasising the use of quality tools and techniques such as statistical process control, quality control tools and quality circles (Ghobadian and Woo, 1996). The MBNQA and the EQA focus on top management commitment in implementing strategic planning and policies for organizational goals and objectives. Both awards are concerned with the customer's role in determining the quality levels of product or services. As such, customer satisfaction will be enhanced through quality improvement activities (Ghobadian and Woo, 1996, Thandapani et. al, 2012).

This study, therefore, aims to reduce the gap through developing a model based on SME businesses. The enablers identified through this study might be useful and beneficial to small businesses for implementing TQM.

Research Methodology

This research employed an administered survey questionnaire to the manufacturing SMEs located in Malaysia. The methods could offer a better analysis and understanding of the phenomenon being researched (Saunders et. al, 2019; Ghauri, P. and Grønhaug, 2005). The methodology was deemed necessary to achieve the objectives of the study. The survey questionnaires permitted the identification of important and emerging issues that required further explanation by those who were directly involved in TQM implementation.

Administered Survey Questionnaire

According to Ghauri and Grønhaug (2005), the administered survey questionnaire is an effective tool for obtaining opinions, attitudes and descriptions as well as for identifying cause and effect relationships. The survey method was considered effective and suitable of collecting data in a short time period whilst allowing respondents the ability to give their answers. Alternative methods available including focus group interviews or semi structured questionnaire with open-ended response boxes could have been engaged at this stage. Following a thorough methodological review these latter methods were considered inappropriate because there was little consistency and commonality between the questions posed and the theoretical underpinning of this study. As such a very open-ended questionnaire

is less likely to truly identify the presence of TQM features than a survey which addresses the key areas of TQM.

Questionnaire for this study was adopted from the previous researches of TQM implementation and SMEs performance (Abdullah, M.M.B. et. al. (2009).; Ahinfu et. al. (2023); Ershadi M.J. et. al. (2019); Feng, J. et. al. (2006); Hudnurka M. et. al. (2023); Wei, J.T. et. al. (2017); Lepisto K. et. al. (2022).

Sampling Techniques

Since this research involved administered survey questionnaire, the researcher employed probability sampling techniques. Probability sampling techniques allowed the researcher to draw valid inferences regarding the population (Saunders et. al, 2019; Wiklund and Wiklund, 1999). For the administered survey questionnaire, the list of potential respondents was obtained from government agencies involve in SMEs development. The respondents for this research were selected from the list of companies which focusing on manufacturing only. This was due to the significant contribution of the manufacturing sector to both Gross Domestic Product (GDP) and employment (DOSM Annual Report, 2022).

In selecting the population for this study, it is recognised that sample companies taken was considered representative of the general population of SMEs in the Malaysian economy. However, it is also noted that no test of representativeness was used to strictly compare the sample with the general economy. This is because the purpose of this survey was to identify the common issues faced by SMEs in implementing TQM.

Sample Selection and Pilot Testing

As mentioned previously, the list of respondents was provided by government agencies that involve in Malaysian SMEs development. The number of Malaysian SMEs in the list provided were 1573 companies. However, only 852 companies were involved in manufacturing activities. After screening process of the list, it was found that only 715 have a complete address including email and phone number to be contacted. Therefore, the questionnaires distributed to the 715 selected Malaysian manufacturing SMEs.

Pilot testing was conducted to ensure that any discrepancies in the questionnaires during design were rectified and corrected before the actual survey was employed. According to Fink (1995), the minimum number for pilot testing is 10. Therefore, in this research, a total of 20 questionnaires were sent out to the Managing Directors of Malaysian SMEs. From the 20 questionnaires that were sent out, 6 companies responded which given response rate of 30%. The issues identified focussed on the length of the questionnaire, sentences being too wordy, ambiguity, and double-barrelled questions. All the comments were analysed and used as a tool for improving the final questionnaire.

Reliability and Validity of Quantitative Data

Any questionnaire needs to be tested to ensure its consistency and accuracy and ensure that it measures what it is purported to measure (Saunders et. al., 2019). The main criteria used for evaluating questionnaires are as follows.

Reliability

Reliability was calculated through Cronbach's coefficient alpha values (Cronbach, 1951), which refer to the degree of homogeneity of a sample. The acceptable value for Cronbach's

alpha is 0.70 although some studies have used 0.60 (Hair et al., 1992). The results (Table 4) show the reliability of the questionnaires used in this research. The Cronbach's alpha value ranged from 0.8346 to 0.8921; therefore, it was within the acceptable level and the results of the study were considered reliable.

Table 4: Internal Consistency Analysis (Cronbach's Alpha)

Sections	Factors	No. of items	Alpha value	Items deleted	Alpha value after items deleted
A	Customer Focus	27	0.8537	None	0.8537
B	Leadership	23	0.8476	3 items	0.8487
C	People's Involvement	19	0.8346	None	0.8346
D	Process Approach	37	0.8713	4 items	0.8786
E	Continuous Improvement	21	0.8921	None	0.8921
F	Company Performance	15	0.8459	None	0.8459

Validity

Validity refers to the extent to which a test measures what it actually wishes to measure. Three major forms of validity are normally used: content, construct and criterion validity (Ghauri and Grønhaug (2005). The questionnaire in this research used content validity and criterion validity for the validation process (Table 5).

Table 5: Correlation Between TQM Constructs (Criterion Validity)

Constructs	Customer Focus	Leadership	People's Involvement	Process Approach	Continuous Improvement	Company Performance
Customer Focus	1.00					
Leadership	0.299*	1.00				
People's Involvement	0.270	0.473**	1.00			
Process Approach	0.347	0.256*	0.125	1.00		
Continuous Improvement	0.114	0.413	0.267	0.118	1.00	
Company Performance	-0.090	-0.174	-0.236	-0.186	-0.244**	1.00

Results And Discussion

General Descriptive of Respondents

Background of Respondents

Initially, the number of responses received was very low. Remedial action was taken to increase the response rate through sending a reminding email, make a telephone call and WhatsApp's. After this action had been taken, the number of responses received increased. The total response rate was 235 companies or 33% and the majority of the respondents to the survey were Managing Directors, Managers and Supervisors (Table 6). The results show that information was gathered from persons who had authority for decision making and TQM initiatives in the company.

Table 6: Analysis of Responses by Respondent Category

Total questionnaires issued	Usable responses received	Usable responses received pre-reminder 1	Usable responses received pre-reminder 2	Total usable responses	Total usable response rate
Frequency	Frequency	Frequency	Frequency	Frequency	Percentage
715	87	75	73	235	33%

Survey Result

TQM Enablers and Organizational Performance

In this research, contribution of TQM enablers toward business performance was identified through the analysis using standardized multiple regressions as summarized in Table 7. The TQM enablers of the business performance further were performed to address the research questions of determining the significant impact toward business performance as well as highlight the most influencing enabler.

From the analysis, R square value is 0.476 which indicates that the TQM enablers explain 47.6 percent of the variance in organizational performance. The statistical tests, therefore provide strong foundation of this study.

Table 7: Coefficient Correlations

Model	Unstandardized Coefficient		Standardized Coefficient	t	Sig.	Collinearity Diagnostic	
	B	Standard Error	Beta			Tolerance	VIF
Customer Focus	0.532	0.145	0.532	11.45	0.000**	0.503	1.745
Leadership	0.715	0.130	0.421	-5.32	0.000*	0.426	2.323
People's Involvement	0.436	0.019	0.454	8.13	0.000**	0.412	3.215
Process Approach	0.613	0.114	0.243	4.24	0.243	0.534	1.765

Continuous Improvement	0.314	0.023	0.385	-3.13	0.002*	0.325	2.643
Organizational Performance	0.725	0.156	0.375	7.45	0.000**	0.317	3.864

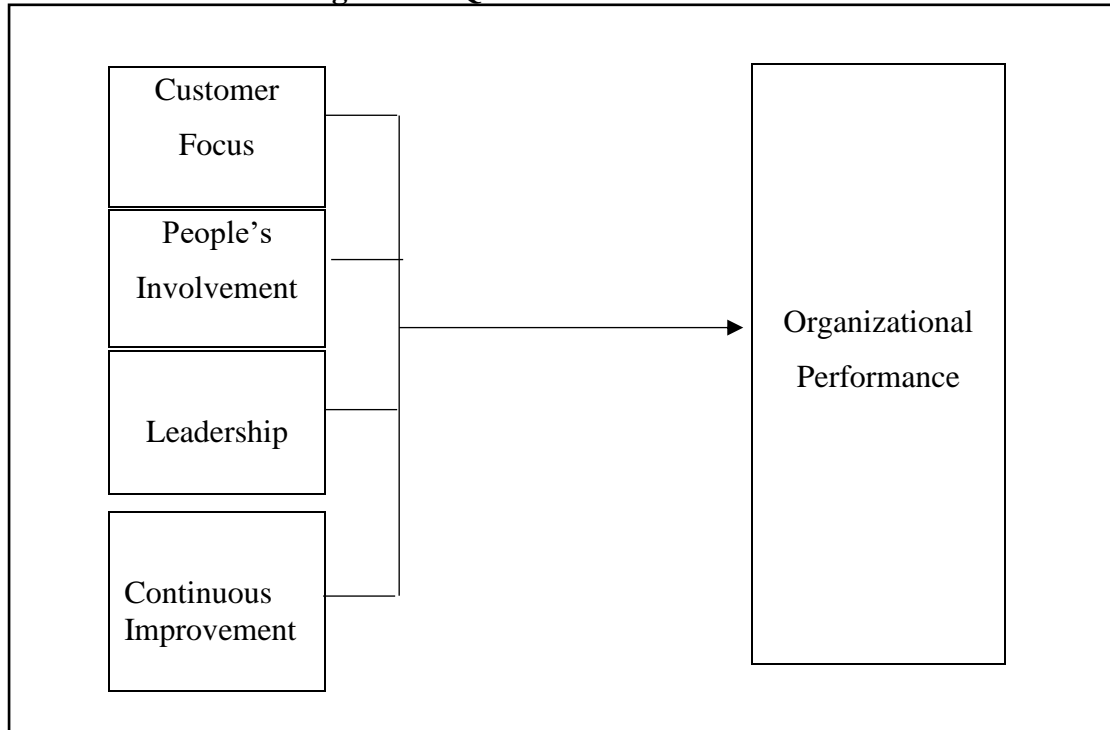
Note: * $p < 0.01$

Table 7 presented the result of coefficient correlations for the constructs of this research. The result indicates that four TQM enablers significantly contribute to organizational performance i.e. customer focus ($\beta = 0.532$, $p < 0.01$); people's involvement ($\beta = 0.454$, $p < 0.01$); leadership ($\beta = 0.421$, $p < 0.01$) and continuous improvement ($\beta = 0.385$, $p < 0.01$). However, only one enabler is not contributed to organizational performance which is process approach ($\beta = 0.243$, $p < 0.01$). Therefore, it can be concluded that the most contributing enabler to organizational performance is customer focus ($\beta = 0.532$, $p < 0.01$), followed by people's involvement ($\beta = 0.454$, $p < 0.01$); leadership ($\beta = 0.421$, $p < 0.01$) and continuous improvement ($\beta = 0.385$, $p < 0.01$).

TQM Model for SMEs

Results obtained from the analysis lead to draw together the enablers and model was duly crafted by the researcher and presented in Figure 1. The model shows there are four TQM enablers significantly contributed to organizational performance that includes customer focus, people's involvement, leadership and continuous improvement.

Figure 1: TQM Model for SME Businesses



Conclusions and Recommendations

The objectives of the study were to identify the TQM enablers contributed to organizational performance for Malaysian SME businesses and investigates the most contributing enablers

toward business performance of responded companies. The objectives also were to establish strategic TQM implementation model for SME businesses. From the findings, this research successfully achieved all of its objectives through the methodology employed. The research engaged quantitative sampling technique through self-administered questionnaire with a response rate more than 33% (235 respondents). The results indicates that enablers influencing organizational performance during are customer focus, leadership, people's involvement and continuous improvement. Further analysis shows the most influencing factor for organizational performance of SMEs is customer focus. Then followed by people's involvement, leadership and continuous improvement. The finding is in parallel with previous studies by other researchers (Jasti et. al., 2021; Talib et. al. ,2019; Ahmed and Idris, (2021).

From the results, the researcher would like to suggest to implement TQM in their organization for daily activities. Customer focus should be given priority by any organizations to ensure business survival. Their business requirements and expectation should be understood and fulfilled, thus becoming part of the organization policy. Top management should stress to the employees the important of fulfilment customer requirements and expectation. They themselves should provide a full commitment and support in implementing TQM. Without top management participation and involvement will lead to the failure of the TQM implementation. On top of that, integrated approaches to business management were combined with a much greater attention to gaining the full participation of all business managers (alignment of subsystems) and gaining this integration through a formal process of annual planning. Such an approaches of integration will be focusing on business efficiency and effectiveness and this will lead to better performance improvement of the organization. The employees must be involved in continuous improvement activities and well training to the importance of TQM enablers. The organization management should explain to the employees of their roles in helping organization to outperform competitors.

Findings of the study will be useful to government in encouraging SME businesses implementing TQM at their premises. Special grant or incentives need to be introduced to SMEs as a motivational factor of implementing TQM. Furthermore, results of this research significant for SME's in identifying TQM enablers to improve their performance. They should work closely with government agencies that can help them propel to the next level.

In the case of future research, it is suggested that the study employed qualitative research approach such as case study or focus group and gaining data through semi structured interview. This methodology able to gain in-depth information or issues of SMEs businesses and their performance.

Acknowledgement

The author would like to extend heartfelt gratitude to the Dean Faculty of Business and Management, Universiti Teknologi MARA for his support throughout this research endeavour.

References

- Abdullah, A. (2010). Measuring TQM implementation: A case study of Malaysian SMEs. *Measuring Business Excellence*, 14 (3), 3-15.
- Abdullah, M.M.B, Uli, J. and Tari, J.J. (2009). The Relationship of Performance with Soft Factors and Quality Improvement, *Total Quality Management & Business Excellence*, 20 (7), 735-748.
- Abdullah, M. M. B., & Tarí, J. J. (2012). The influence of Soft and Hard Quality Management Practices on Performance. *Asia Pacific Management Review*, 17 (3), 177–193.
- Acquah, I.S.K., Quaicoe, J. and Arhin, M. (2023), How to Invest in Total Quality Management Practices for Enhanced Operational Performance: Findings From PLS-SEM and fsQCA, *The TQM Journal*, 35 (7), 1830-1859.
- Addis, S. (2019). An Exploration of Quality Management Practices in the Manufacturing Industry of Ethiopia. *The TQM Journal*, 32 (1), 127–142.
- Adem, M.K. and Viridi, S.S. (2024). The Structural Link Between TQM Practices and Financial Performance: The Mediating Role of Operational Performance, *International Journal of Quality and Reliability Management*, 41 (1), 392-422.
- Ahinful, A.A., Opoku Mensah, A., Koomson, S., Nyarko, F.K. and Nkrumah, E. (2023). A Conceptual Framework of Total Quality Management on Innovation Performance in the Banking Sector, *The TQM Journal*, 36 (4), 1193-1211.
- Ahmed, A. O. and Idris, A. A. (2020). Examining the Relationship Between Soft Total Quality Management (TQM) Aspects and Employees' Job Satisfaction in ISO 9001 Sudanese Oil Companies, *The TQM Journal*, 33 (1), 95-124.
- Bhaskar, H.L. (2020). Establishing a Link Among Total Quality Management, Market Orientation and Organizational Performance: An Empirical Investigation, *The TQM Journal*, 32 (6), 1507-1524.
- Bouranta, N., Psomas, E.L. and Pantouvakis, A. (2017). Identifying the critical determinants of TQM and Their Impact on Company Performance Evidence from the Hotel Industry of Greece, *The TQM Journal*, 29 (1), 147-166.
- Chan, W.C., Tasmin, R., Nor Aziati, A.H., Rasi, R.Z., Ismail, F. & Yaw, L.P. (2017). Factors Influencing the Effectiveness of Inventory Management in Manufacturing SMEs. *IOP Conference Series: Material Science and Engineering*, 226.
- Demirbag, M., Tatoglu, E., Tekinus, M. and Zaim, S. (2006). An Analysis of the Relationship Between TQM Implementation and Organizational Performance: Evidence from Turkish SMEs", *Journal of Manufacturing Technology Management*, 17 (6), 829-847.
- Department of Statistics Malaysia. (2023). *Micro, Small & Medium Enterprises (MSMEs) Performance Report 2022*, Ministry of Finance, Kuala Lumpur.
- Do, M., Huang, Y. and Do, T. (2021). The Effect of Total Quality Management-Enabling Factors on Corporate Social Responsibility and Business Performance: Evidence from Vietnamese Coffee Firms, *Benchmarking: An International Journal*, 28 (4), 1296-1318.
- Dubey, R. (2015). An Insight on Soft TQM Practices and Their Impact on Cement Manufacturing Firm's Performance. *Business Process Management Journal*, 21 (1), 2–24.
- Ershadi, M.J., Najafi, N. and Soleimani, P. (2019), Measuring the Impact of Soft and Hard Total Quality Management Factors on Customer Behavior Based on The Role of Innovation and Continuous Exploring the Influence of Company Size and Industry, *International Journal of Quality & Reliability Management*, 39 (1), 30-52.
- Feng, J., Prajogo, D.I., Tan, K.C. and Sohal, A.S. (2006), The Impact of TQM Practices on Performance, *European Journal of Innovation Management*, 9 (3), 269.

- Fernandez, M.F., Isabel, F.C.R., Isabel, P.A.D. Aitken, H.G.W. (2022). Total Quality Management, Competitiveness and Operational Performance of Small Enterprises in Peru: A Literature Review. *International Journal of Operations and Quantitative Management*, 28 (3).
- Flynn, B. B., Schroeder, R.G. & Sakakibara, S. (1995). The Impact of Quality Management Practices on Performance and Competitive Advantage. *Decision Sciences*, 26 (5), 659-691.
- Gadenne, D., and Sharma, B. (2009). An Investigation of the Hard and Soft Quality Management Factors of Australian SMEs and Their Association with Firm Performance. *International Journal of Quality and Reliability Management*, 26 (9), 865–880.
- Gerdenitsch, C., Kubicek, B., and Korunka, C. (2015). Control in Flexible Working Arrangements. *Journal of Personnel Psychology*, 14 (2), 61–69.
- Ghauri, P. and Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide (3rd Edition)*, Prentice Hall, London.
- Ghobadian, A. and Gallear, D. (1997). TQM and Organisation Size. *International Journal of Operations and Production Management*, 17 (2), 121-163.
- Ghobadian, A. and Woo, H. S. (1996). Characteristics, Benefits and Shortcomings of Four Major Quality Awards. *International Journal of Quality and Reliability Management*, 13 (2), 10-44.
- Goldkuhl, G. and Lind, M. (2008). Coordination and Transformation in Business Processes: Towards an Integrated View. *Business Process Management Journal*, 14 (6), 761-777.
- Hackman, J. R. and R. Wageman. (1995). Total Quality Management: Empirical, Conceptual and Practical Issues. *Administrative Science Quarterly*, 40 (2), 310-342.
- Hill, N. S., and Bartol, K. M. (2016). Empowering Leadership and Effective Collaboration in Geographically Dispersed Teams. *Personnel Psychology*, 69 (1), 159–198.
- Hilman, H., Ali, G.A. and Gorondutse, A.H. (2020). The relationship Between TQM and SMEs'. *International Journal of Productivity and Performance Management*, Vol. 69 No. 1, 61-84.
- Hudnurkar, M., Ambekar, S., Bhattacharya, S. and Sheorey, P.A. (2023). Relationship of Total Quality Management with Corporate Sustainability in the MSME Sector: Does Innovation Capability Play a Mediating Role? *The TQM Journal*, 35 (7), 1860-1886.
- Husband, S. and Mandal, P. (1999). A Conceptual Model for Quality Integrated Management in Small and Medium Size Enterprises. *International Journal of Quality and Reliability Management*, 16 (7), 669-713.
- Jasti, N.V.K, Venkateswaran, V., Kota, S. and Sangwan. K.S. (2022). A Literature Review on Total Quality Management (Models, Frameworks, and Tools and Techniques) in Higher Education. *The TQM Journal*, 34 (5).
- Juan A. Marin-Garcia, Amable Juarez-Tarraga and Cristina Santandreu-Mascarell. (2018). Kaizen Philosophy: The Keys of the Permanent Suggestion Systems Analyzed from the Workers' Perspective. *The TQM Journal*, 30 (4), 296-320.
- Jung, J. Y., Wang, Y. J., and Wu, S. (2009). Competitive Strategy, TQM Practice, and Continuous Improvement of International Project Management: A Contingency Study. *International Journal of Quality & Reliability Management*, 26 (2), 164–183.
- Kafetzopoulos, D., Gotzamani, K. and Skalkos, D. (2019). The Relationship Between EFQM Enablers and Business Performance: The Mediating Role of Innovation, *Journal of Manufacturing Technology Management*, 30, 684-706.
- Kanapathy, K., Bin, C.S., Zailani, S. and Aghapour, A.H. (2017). The Impact of Soft TQM and Hard TQM on Innovation Performance: The Moderating Effect of Organisational

- Culture. *International Journal of Production and Quality Management*, 20 (4), 429–461.
- Khalfallah, M., Ben Salem, A., Zorgati, H. and Lakhal, L. (2021). Innovation Mediating Relationship Between TQM and Performance: Cases of Industrial Certified Companies, *The TQM Journal*, 34 (3), 552-575.
- Khan, S.A., Kaviani, M.A., Galli, B.J. and Ishtiaq, P. (2019). Application of Continuous Improvement Techniques to Improve Organization Performance. *International Journal of Lean Six Sigma*, 10 (2), 542-565.
- Klewitz, J. and Hansen, E.G. (2013). Sustainability-Oriented Innovation of SMEs: A Systematic Review. *Journal of Cleaner Production*, 65, 57–75.
- Kumar, S., Dhingra, A.K. and Singh, B. (2018). Process Improvement Through Lean-Kaizen Using Value Stream Map: A Case Study in India, *The International Journal of Advanced Manufacturing Technology*, 96 (5/8), 2687-2698.
- Lakhal, L., Pasin, F. and Limam, M. (2006). Quality Management Practices and Their Impact on Performance. *International Journal of Quality & Reliability Management*, 23 (6), 625-646.
- Laohavichien, T., Lawrence D, F. and Stephen, C. (2011). Leadership and Quality and Management Practices in Thailand. *International Journal of Production and Operation Management*, 31 (10), 1048-1070.
- Lee, C. Y. (2004). Perception and Development of Total Quality Management in Small Manufacturers: An Exploratory Study in China. *Journal Of Small Business Management*, 42 (1), 102-115.
- Lepisto, K., Saunila, M. and Ukko, J. (2022), The Impact of Certification on the Elements of TQM
- Martin, K. and Osterling, M. (2017). *The Kaizen Event Planner: Achieving Rapid Improvement in Office, Service, and Technical Environments*, CRC Press, Florida.
- McAdam, R. (2000). Quality Models in an SME Context: A Critical Perspective Using a Grounded Approach. *International Journal of Quality and Reliability Management*, 17 (3), 305-323.
- Miranda Silva, G. Gomes, P.J., Lages, LF. & Pereira, Z.L. (2014). The Roles of TQM in Strategic Product Innovation: An Empirical Assessment. *International Journal of Operations and Production Management*, 34 (10), 1307-1337.
- Modgil, S., and S. Sharma. (2017). Information Systems, Supply Chain Management and Operational Performance: Tri-Linkage—An Exploratory Study on Pharmaceutical Industry of India. *Global Business Review*, 18 (3), 652–677.
- Mohanty, R.P. (1997). TQM: Some Issues for Deliberation. *Production Planning and Control*, 8 (1), 10-13.
- Ooi, K.B., Lin, B., Teh, P.L. and 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.
- Patyal, V.S. and Koilakuntla, M. (2015). Infrastructure and Core Quality Practices in Indian Manufacturing Organizations, *Journal of Advances in Management Research*, 12 (2), 141-175.
- Peters, P., Poutsma, E., Van der Heijden, B. I., Bakker, A. B., and Bruijn, T. D. (2014). Enjoying New Ways to Work: An HRM-Process Approach to Study Flow. *Human Resource Management*, 53 (2), 271–290.
- Prajogo, D. I. and A. Brown. (2004). The Relationship Between TQM Practices and Quality Performance and the Role of Formal TQM Programs: An Australian Empirical Study. *The Quality Management Journal*, 11 (4), 31-42.

- Prajogo, D. I., and McDermott, C. M. (2005). The Relationship Between Total Quality Management Practices and Organizational Culture. *International Journal of Operations and Production Management*, 25 (11), 1101–1122.
- Prajogo, D.I. and Mc Dermott, C.M. (2011). The relationship between multidimensional organizational culture and performance. *International Journal of Operations and Production Management*, 31 (7), 712-735.
- Prajogo, D. I. and A. S. Sohal. (2006). The Relationship Between Organization Strategy, Total Quality Management (TQM), and Organization Performance—The Mediating Role of TQM. *European Journal of Operational Research*, 168 (1), 35-50.
- Psomas, E.L. and Jaca, C. (2016). The impact of Total Quality Management on Service Company Quality and Innovation Performance: An Empirical Study, *International Journal Production Economics*, 162, 216-226.
- Rahman, S. and P. Bullock (2005). Soft TQM, hard TQM and Organisational Performance Relationship: An Empirical Investigation. *Omega, International Journal of Management Science*, 33 (1), 73-83.
- Razali, R., Saraih, U.N., Shaari, M.S., Abd Rani, M.J. and Abashah, A. (2018). The Influences of Effectiveness, Competitive Advantages and Market Accessibility on SME Performance in Malaysia. *MATEC Web of Conferences*, Malaysia Technical Universities Conference on Engineering and Technology (MUCET 2017).
- Reinaldo, L. d. S. P., Vieira Neto, J., Goyannes Gusmão Caiado, R., and Gonçalves Quelhas, O. L. (2021). Critical Factors for Total Quality Management Implementation in the Brazilian Construction Industry. *The TQM Journal*, 33 (5), 1001-1019.
- Rijnders, S. and Boer, H. (2004). A Typology of Continuous Improvement Implementation Processes. *Knowledge and Process Management*, 11 (4), 283-296.
- Saunders, M.N.K, Lewis, P. and Thornhill, A. (2019). *Research Methods for Business Students (8th. Edition)*. Pearson Publication, UK.
- Sila, I. (2007). Examining the Effects of Contextual Factors on TQM and Performance Through the Lens of Organizational Theories: An Empirical study, *Journal of Operations Management*, 25, 83-109.
- Small and Medium Enterprise Corporation Malaysia. (2022). *Small and Medium Enterprise Performance 2020. Annual Report 2021*. Ministry of Industrial Trade and Industry, Kuala Lumpur.
- Storey, J. (1992). *Development in the Management of Human Resources*. London, Blackwell Publishing.
- Synder, K.M. (2007). The European Education Quality Benchmark System: Helping Teachers to Work with Information to Sustain Change. *European Journal of Education*, 42 (3), 425-435.
- Talib, F. and Rahman, Z. (2010). Studying the Impact of Total Quality Management in Service. *International Journal of Productivity and Quality Management*, 6 (2), 249-268.
- Talib, F., Asjad, M., Attri., R., Siddiquee, A.N. and Khan, Z.A. (2019). Ranking Model of Total Quality Management Enablers in Healthcare Establishments Using the Best-Worst Method. *The TQM Journal*, 31 (5).
- Tang, Y.-T. (2017). Performance Measurement Systems, TQM and Multi-Level Firm Performance: A Person–Organisation Fit Perspective, *Total Quality Management and Business Excellence*, 30(15–16), 1578–1595.
- Thandapani, D., Gopalakrishnan, K., Devadasan, S.R., Sreenivasa, C.G. and Mughesh, R. (2012). Quality Models in Industrial and Engineering Educational Scenarios: A View from Literature. *The TQM Journal*, 24 (2), 155-166.

- Twelfth Malaysia Plan Report (2021-2025). Ministry of Finance Malaysia. Kuala Lumpur.
- Ward, A.C. and Sobek, D.K. II. (2014). *Lean Product and Process Development*. Lean Enterprise Institute, Cambridge, MA
- Wei, J.T., Chang, Y.W., Zhang, X., Wu, H.-H. and Tang, Y.-T. (2017). Performance Measurement Systems, TQM and Multi-Level Firm Performance: A Person–Organisation Fit Perspective, *Total Quality Management and Business Excellence*, 30 (15–16), 1578–1595.
- Wiklund, H. and P. S. Wicklund (1999). A Collaboration Concept for TQM Implementations in Small and Medium Sized Enterprises. *International Journal of Applied Quality Management* 2 (1), 101-115.
- Yazdani, B.A. Shahin, A.A. and Manouchehr, K. (2016). The Impact of TQM Practices on Organizational Learning Case Study: Automobile Part Manufacturing and Suppliers of Iran. *International Journal of Quality and Reliability Management*, 33 (5).
- Youssef, M.A. and Youssef, E.M. (2018). The Synergistic Impact of ISO 9000 and TQM on Operational Performance and Competitiveness, *International Journal of Quality and Reliability Management*, 5 (3), 614-634.
- Yunis, M., J. Jung, and S. Chen. 2013. TQM, Strategy and Performance: A Firm-Level Analysis. *International Journal of Quality and Reliability Management* 30 (6), 690–714.
- Zakuan, N., Yusof, S.M., Mat Saman, M.Z. and Shaharoun, A.W. (2010). Confirmatory Factor Analysis of TQM Practices in Malaysia and Thailand Industries. *International Journal of Business and Management*. 5 (1).
- Zeng, J., Phan, C.A. and Matsui, Y. (2015). The Impact of Hard and Soft Quality Management on Quality and Innovation Performance: An Empirical Study. *International Journal of Production Economic*, 162, 216-226.
- Zhou, B. (2016). Lean Principles, Practices, and Impacts: A Study on Small and Medium-Sized Enterprises (SMEs). *Annals of Operation Research*. 241, 457-474.
- Zu, X. (2009). Infrastructure and Core Quality Management Practices: How Do They Affect Quality? *International Journal of Quality and Reliability Management* 26 (2), 129-149.