



TQM practices, service quality, and market orientation

Some empirical evidence from a developing country

TQM practices,
service quality,
market orientation

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Abstract

Purpose – The main purpose of this study is to explore the relationship between total quality management (TQM) practices and service quality as well as the relationship between TQM practices and market orientation.

Design/methodology/approach – Structured questionnaires were distributed to managers of 175 service organisations in the northern region of Malaysia; 101 were returned.

Findings – The results show that employee empowerment, information and communication, customer focus, and continuous improvement had a significant effect on service quality whereas only employee empowerment and customer focus had a significant effect on market orientation.

Research limitations/implications – A wider sample can be used for any future study, which can be generalized to the service industry with multiple responses from different individuals and management levels. The same study can also be completed by including more TQM practices as well as other mediating variables like environment, culture, and control within the organization.

Practical implications – This study contributes significant knowledge to the service industry since there is still a lack of studies that have been done in relation to TQM in service organizations due to its origin, which is more related to manufacturing organizations. It helps towards understanding the improvement in quality efforts in service organizations in the context of Malaysian practitioners.

Originality/value – This study adds to the literature by bridging the gap and showing the importance of TQM practices in service organizations. It also provides some theoretical contributions to the TQM development, in relation to market orientation.

Keywords Service quality, Market orientation, Service industries, Total quality management, Malaysia

Paper type Research paper

Introduction

The importance of quality is a main concern for many organizations, both public and private. In Malaysia, most organizations have started to consider quality as an essential part of their business plan in order to meet the challenges of the new global environment. Among all quality practices, increasingly organizations have focused on total quality management (TQM). According to Dean and Bowen (1994), the recognition of TQM as a source of competitive advantage has been widely promoted around the world. TQM has also been conceived by Escrig-Tena (2004) as the most global and advanced approach in the area of quality. With TQM's main objective being to establish a management system and corporate culture to ensure that customer satisfaction is enhanced, which involves a systematic method for continuous improvement of organizational processes, resulting in high quality products and services (Waldman, 1994), quality systems like TQM could also lead to better service quality and organizational performance (Cook and Verma, 2002). Meeting customer needs still remains economically competitive although automated processes can make



an impact on the way services are delivered. Service industries by and large are still labor-intensive, and there can be no substitute for high-quality personal interaction between service employees and customers.

However, most of what has been written on TQM is usually related to manufacturing related organizations (Agus and Abdullah, 2000; Agus, 2000; Ljungstrom and Klefsjo, 2002) even though it is widely believed that the concepts and principles under TQM are equally relevant to service organizations. Generally, there is still a shortage of TQM studies in the service sector (Huq, 2005; Brah *et al.*, 2000). Also, as mentioned in a study done by Yasin *et al.* (2004), service organizations are still lagging behind their manufacturing counterparts in terms of their strategic commitment to TQM. One unique characteristic of the Malaysian economy is that 99.2 per cent of all business establishments are small and medium enterprises. (The Census of Business Establishments and Enterprises 2005.) A large percentage (86.5 per cent) are in the services sector particularly in the retail, restaurant, and wholesale business. The services sector has also been one of the largest contributors to gross domestic product, contributing 47 per cent in 1990 to 54 per cent in 2000 and 58 per cent in 2005 (*The Star*, 2006). Compared to developed countries this sector has the potential to grow further according to the same report. This result points to the importance of the service sector to the development of the Malaysian economy. With that in mind, the aim of this study is to investigate the impact of TQM practices on service quality and market orientation, this study tries to answer questions on the relationship of TQM practices with: service quality and market orientation among service organizations in a developing country. This study helps to enhance the knowledge on TQM practices especially in the service industry. Also, the focus on market orientation in this study provides some theoretical contributions to the TQM development.

Literature review

The success of TQM will result in improved employee involvement, improved communication, increased productivity, improved quality and less reworks, improved customer satisfaction, reduced costs of poor quality and improved competitive advantage (Antony *et al.*, 2002). In conjunction, strong competitive pressure has forced Malaysian organizations to offer higher quality products and services as a way to attract and keep their customers. Therefore, many organizations have implemented TQM, in order to improve their positions in the market place.

TQM practices

Saraph *et al.* (1989) argue that there are eight critical success factors (CSFs) for TQM implementation such as: top management leadership, role of the quality department, training, product design, supplier quality management, process management, quality data reporting, and employee relations. Meanwhile, Black and Porter (1996) revealed ten major TQM practices. They are people and customer management, supplier partnerships, communication of improvement information, customer satisfaction orientation, external interface management, and teamwork structures for improvement, operational quality planning, quality improvement measurement systems, and corporate quality culture.

Antony *et al.* (2002) described 11 TQM practices: management commitment, role of the quality department, training and education, employee involvement, continuous improvement, supplier partnership, product/service design, quality policies, quality

data and reporting, communication to improve quality, and customer satisfaction orientation.

Sureshchandar *et al.* (2002) expanded the practices even further and came out with 12 major practices comprising of top management commitment and visionary leadership, human resource management, technical system, information and analysis system, benchmarking, continuous improvement, customer focus, employee satisfaction, union intervention, social responsibility, servicescapes, and service culture.

Brah *et al.* (2000) in their study on TQM and business performance in Singapore service sector has come out with 11 constructs of TQM implementation, which are top management support, customer focus, employee involvement, employee training, employee empowerment, supplier quality management, process improvement, service design, quality improvement rewards, benchmarking, and cleanliness and organization.

Based on the literature above, the researchers has selected the following list of seven main practices of TQM implementation for this study. All practices are selected due to their usefulness and relevance to the service organization. Customer focus and continuous improvement are among the principles of quality that has been most written about (Dean and Bowen, 1994). In fact, Brah *et al.* (2000) have identified that top management commitment, customer focus, employee empowerment, and employee involvement are among the critical aspects of TQM that can determine the success of TQM programs in the service environment. In addition, these seven practices are among 25 TQM practices listed to be the most common extracted across 76 studies on TQM (Sila and Ebrahimpour, 2002). They are:

- Management support and commitment
- Employee involvement
- Employee empowerment
- Information and communication
- Training and education
- Customer focus
- Continuous improvement

Service quality

Among the various concepts of service quality, two of the most widely accepted and used by researchers is the SERVQUAL model by Parasuraman *et al.* (1988) and the technical/functional quality framework by Gronroos (1983, 1990). Parasuraman *et al.* (1985) proposed a conceptual framework of service quality based on the interpretation of qualitative data from extensive explanatory research performed in four service businesses. The SERVQUAL instrument by Parasuraman *et al.* (1988) included two 22-item sections. The intent is to measure customer expectations of various aspects of service quality and customer perceptions of the service they actually received from the local service organization (Lassar *et al.*, 2000). Parasuraman *et al.* (1988) in their research found that customers consider five dimensions in their assessment of service: reliability, responsiveness, assurance, empathy, and tangibles, which represent how the customers organize information on service quality (Cook and Verma, 2002).

Apart from the expectations-performance methodology by Parasuraman *et al.* (1988), Cronin and Taylor (1994) claimed that a psychometrically superior assessment

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of service quality could be obtained through the SERVQUAL performance items alone. According to Lassar *et al.* (2000), recent researchers have started integrating other constructs and measures along with the SERVQUAL dimensions in order to extend and improve the explanatory power of this model. Gronroos (1983) has his own functional/technical model of service quality. He used a two-dimension model of service quality: technical quality and functional quality. In this model, he explained that technical quality entails what is provided and functional quality takes into account how it is delivered. He also suggested that service quality is dependent on two variables: the consumers' expectations of what the outcome will be, and the consumers' perception of the actual result (Dotchin and Oakland, 1994). Gronroos (1984 in Dotchin and Oakland, 1994) indicated that functional quality will compensate for temporary problems with technical quality but will not make up for an overall lower quality level. This means that as far as services are concerned, if technical quality is at least satisfactory, then functional quality is the important factor of consumer perceptions. Meanwhile, where technical quality is very similar among firms, functional quality is an important means of differentiation.

The two dimensions of service performance (technical and functional quality) are compared to the customers' expectations and eventually the customer has their own service quality perceptions (Chia *et al.*, 2002), which consists of service culture and service process. According to Anderson *et al.* (1994), the Gronroos model has received a lot of attention recently even though it has not been utilized or tested to the extent of the SERVQUAL model. Lassar *et al.* (2000) in his study on service quality perspectives and satisfaction in private banking concluded that the technical/functional quality based model of service quality is better suited as compared to the SERVQUAL based model in predicting customer satisfaction when customers are actively involved or highly interested in service delivery.

Market orientation

Jaworski and Kohli (1993) argued that market orientation is concerned with behaviors and activities in the organization. They have defined market orientation as the organization-wide generation of market intelligence, disseminating and responding to the market intelligence across departments in the organization. Meanwhile some authors relate the market orientation with cultural perspectives such as Narver and Slater (1990), Deshpande *et al.* (1993), and Deshpande and Farley (1998) mentioned that market orientation is not a culture but a set of activities in an organization (Farrell, 2000).

However, according to Narver and Slater (1990), market orientation is a basic part of organizational culture and not a set of processes and activities that is aimed to create a market oriented culture. Each employee must understand that the whole purpose of the organization is to create superior value for customers (Farrell, 2000). Meanwhile, Narver and Slater (1990) defined market orientation as the organization culture that most effectively creates the necessary behaviors for the creation of superior value for buyers and, thus, continuous superior performance for the business. Besides, they also argued that the behavior and culture of an organization are inter-linked in which an organization's behavior is shaped by its culture and over time culture is shaped by the organization's behavior and performance. Furthermore, Deshpande and Farley (1998) found that market orientation was in reality identical to customer orientation. Deshpande and Webster (1989) as well as Payne (1988) stated that parallel to the marketing concept, customers have been considered as the main focus of market orientation.

TQM and service quality

TQM is not only limited to product quality improvement. It also covers a wider aspect of quality in the service sector. Previous empirical studies regarding the linkage between TQM and organizational performance as well as quality have shown significant and positive results see Flynn *et al.* (1994), Ahire *et al.* (1996), and Terziovski and Samson (1999). The main focus of TQM as suggested by Ishikawa (1972), Crosby (1979), Deming (1982) and Juran (1988) is to improve overall quality including process quality and service quality (Litton, 2001). Successful TQM implementation will give benefits in improving quality and reducing rework as well as reduction in costs of poor quality such as scrap, rework, late deliveries, warranty, replacement, etc (Antony *et al.*, 2002). Furthermore, Brah *et al.* (2002) supported the proposition that TQM implementation correlates with quality conformance.

Cook and Verma (2002) found that according to the perceptions of bank employees, quality systems affects service quality that in turn relates to organizational performance. Effective TQM processes can generate marked improvements in both product and service quality which then results in increased customer satisfaction and organization's profitability (Litton, 2001). By establishing a motivated, customer oriented management philosophy and practice; internal service quality levels will be more favorable. It was also found that employees' possessing organizational knowledge and skills are important in delivering service quality in which high levels of employee morale and satisfaction were found dependent on the empowerment and involvement of employees (Geralis and Terziovski, 2003; Prajogo and Sohal, 2006).

TQM and market orientation

According Javier *et al.* (2003), the significance of taking into consideration business orientation is already an accepted idea in the TQM literature. Top management such as chief executive officers and senior managers are important in TQM. Senior managers shape the direction of the organization as well as its values (Hambrick and Manson, 1984; Webster, 1988). Meanwhile the amount of emphasis senior managers' place on market orientation affects both the acquisition of and responsiveness to information and market orientation requires risk taking on the part of senior managers (Jaworski and Kohli, 1993). It has been clearly shown that top management support, as one of the elements in TQM practices contributes to better market orientation in an organization.

Litton (2001), revealed that besides becoming a cornerstone of the corporate strategy and being often explicit in the organization's mission statement TQM also provides some input to the process of market orientation. In other words, those organizations that implement TQM in their strategy and corporate culture are by nature, market oriented organizations.

As mentioned earlier, TQM leads to better product and service quality. These kind of improvements from TQM lead to higher value perception among customers, which can be a source of differentiation to the organization. Furthermore, for that kind of service improvement, customer will be willing to pay premiums. Therefore Sparks (1993) stated that TQM increases the organization's responsiveness to customer needs, which is part of market orientation, and finally will lead to a longer relationship between the organization and the customer. In fact, the antecedents of market orientation as proposed by Jaworski and Kohli (1993), have similar elements to TQM such as management support and commitment, employee involvement, and employee empowerment. This implies that market orientation is another output from TQM. According to Idris-Ashari and Zairi (1999) since TQM efforts could affect

differentiation and positioning TQM and market orientation is related. Given the right resources and organizational culture, TQM and market orientation can promise a powerful contribution in enhancing firm performance.

The framework

Based on the literature review, a research framework has been developed in order to study the linkages between TQM practices, service quality, and market orientation (Figure 1).

We have argued that TQM delivers better service quality and market oriented behavior. As can be seen from the framework, the study investigates the relationship between the TQM practices, service quality, and market orientation, where TQM practices are the independent variable and are positively related to both service quality and market orientation as the dependent variables. This relationship was used to develop the hypotheses for this study.

Given the previous literature we hypothesize the following concerning TQM elements and service quality:

- H1a.* The extent of management support and commitment is positively related to service quality.
- H1b.* The extent of employee involvement is positively related to service quality.
- H1c.* The extent of employee empowerment is positively related to service quality.
- H1d.* The extent of information and communication is positively related to service quality.
- H1e.* The extent of training and education is positively related to service quality.
- H1f.* The extent of customer focus is positively related to service quality.
- H1g.* The extent of continuous improvement is positively related to service quality.

The second set of arguments we make is that the extent of TQM practices is positively related to market orientation.

- H2a.* The extent of management support and commitment is positively related to market orientation.
- H2b.* The extent of employee involvement is positively related to market orientation.

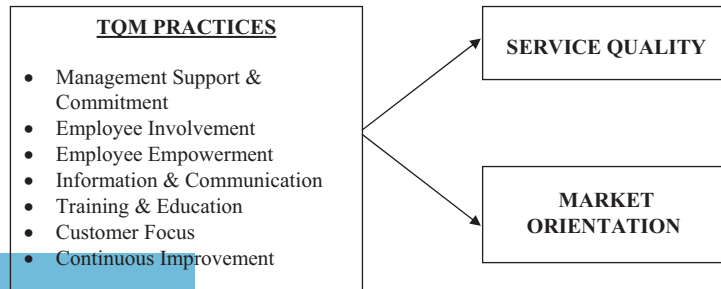


Figure 1.
The research model

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- H2c. The extent of employee empowerment is positively related to on market orientation.
- H2d. The extent of information and communication is positively related to market orientation.
- H2e. The extent of training and education is positively related to market orientation.
- H2f. The extent of customer focus is positively related to market orientation.
- H2g. The extent of continuous improvement is positively related to on market orientation.

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The methodology

The present study was conducted in Malaysia. Malaysia is divided into West Malaysia and East Malaysia. The population of this study includes service organizations in the northern region of West Malaysia (Kedah, Perak, Penang, and Perlis States) that practices TQM in their operations. Banking, finance companies, insurance companies, private and public utility service organizations, higher learning organizations, consulting service companies, and other related service organizations were purposively chosen in this study.

We obtained main data by distributing questionnaires to respondents. Before the questionnaires were distributed, the researchers contacted the service organizations found in local directories asking whether the organization practiced TQM or not. If the organization practiced TQM, then the researchers proceeded to send the questionnaire to the organization. For this study, 200 service organizations were contacted and 175 of them did practice TQM in their business routine. Questionnaires were sent by post and e-mailed directly to the manager of each selected service organization. A total of 175 sets of questionnaires were distributed to the respondents with a 57.71 per cent response rate. The response rate of 57.71 per cent is significantly higher than the standard ~20 per cent acceptable mail survey response rates. As the respondents for this study are key persons in the organization, they are known to be less likely to respond to mailed questionnaires than people in the general population (Hunt and Chonko, 1987). So this response rate is exceptionally good and representative of companies in that region of Malaysia.

As suggested by Zou *et al.* (1997), owing to the lack of comparable data from the non-responding firms, direct comparison of the responding and non-responding firms was not possible. We used the wave analysis method with the student's *t*-test as the next best approach to compare between the early and late replies (replies received after the follow up contacts) as suggested by Armstrong and Overton (1977). The wave analysis method assumes that those who respond less readily are more like non-respondents. (Zou *et al.*, 1997). They suggested using the *t*-test procedure under the assumptions of both equal and unequal group variances. In the *t*-test analysis, we found no between-group mean differences at the 5 per cent level for any of the variables in the study. Thus, it may be concluded that non-response bias was not of particular influence in this research. (Skarmeas *et al.*, 2002).

The measurement

The TQM practices construct measures the extent of TQM practiced in the organization. The 33 questions asked were adopted from the literature based on the

works of Sureshchandar *et al.* (2002), Antony *et al.* (2002), and Brah *et al.* (2000) in which respondents were asked to respond to the statement using a five-point Likert scale ranging from strongly disagree, which is weighted as 1, to strongly agree, weighted as 5.

The service quality construct captures the respondents' perceived service quality in their organizations' both functional and technical quality. Basically all the 12 questions in this section were adopted from Gronroos (1983) which was also adopted by Lassar *et al.* (2000). Respondents were asked to respond to the statement using a five-point Likert scale ranging from 1 for very low to 5 for very high for each statement.

For the market orientation construct, it measures the extent of market orientation practices in the organization. The questions have been adopted from Narver and Slater (1990), which was also adopted by Farrell (2000).

Goodness of measure

Factor analysis and reliability analysis were used in order to determine the data reliability for the TQM practices, service quality, and market orientation measures. A within factor, factor analysis was performed to assess convergent validity. The results of the factor analysis and reliability tests are presented in Tables I and II. All individual loadings were above the minimum of 0.5 recommended by Hair *et al.* (1998). The reliability values were all above 0.7 except for employee empowerment which was slightly lower at 0.66. Thus it can be concluded that the measures used in this study are valid and reliable.

The results

Test of hypothesis 1

In this model, regression analysis on TQM practices and service quality was performed in which service quality acts as the dependent variable and TQM practices with the seven elements: management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus, and continuous improvement, as the independent variables.

From the result as shown in Table III, the R^2 is 0.616, which means that 61.6 per cent of the variation in service quality can be explained by management support and commitment, employee involvement, employee empowerment, information and communication, training and education, customer focus, and continuous improvement.

Table III also shows that only information and communication ($\beta = 0.374$, $p < 0.01$), customer focus ($\beta = 0.299$, $p < 0.05$), continuous improvement ($\beta = 0.255$, $p < 0.05$), and employee empowerment ($\beta = 0.152$, $p < 0.05$), had a significant and positive effect on service quality. This provides evidence to support *H1c*, *H1d*, *H1f*, and *H1g*. Based on the β values, information and communication has the highest impact on service quality followed by customer focus, continuous improvement, and subsequently employee empowerment.

Test of hypothesis 2

A regression analysis on TQM practices and market orientation was performed to test this hypothesis. In this case, the dependent variable is the market orientation, which will be explained by the level of TQM practices as the independent variables.

Table IV shows the results of the regression analysis in which indicates that R^2 is 0.687 indicating that 68.7 per cent of the variation in market orientation can be explained by management support and commitment, employee involvement, employee

Variables	Loadings	Eigenvalue	Variance	Reliability	TQM practices, service quality, market orientation
<i>Management support and commitment</i>					721
MS1	0.833	3.336	66.717	0.87	
MS2	0.866				
MS3	0.850				
MS4	0.759				
MS5	0.770				
<i>Employee involvement</i>					
EI1	0.846	2.451	61.267	0.78	
EI2	0.720				
EI3	0.772				
EI4	0.787				
<i>Employee empowerment</i>					
EE1	0.686	2.008	50.193	0.66	
EE2	0.790				
EE3	0.759				
EE4	0.580				
<i>Information and communication</i>					
IC1	0.737	2.513	62.826	0.80	
IC2	0.742				
IC3	0.880				
IC4	0.803				
<i>Training and education</i>					
TE1	0.788	4.249	70.812	0.91	
TE2	0.803				
TE3	0.854				
TE4	0.858				
TE5	0.895				
TE6	0.846				
<i>Customer focus</i>					
CF1	0.780	3.624	72.473	0.90	
CF2	0.902				
CF3	0.860				
CF4	0.885				
CF5	0.823				
<i>Continuous improvement</i>					
CI1	0.881	3.974	79.481	0.93	
CI2	0.884				
CI3	0.870				
CI4	0.916				
CI5	0.906				

Table I.
Factor analysis of
TQM practices

empowerment, information and communication, training and education, customer focus, and continuous improvement. Only two variables had a significant and positive effect on market orientation. They are customer focus ($\beta = 0.293$, $p < 0.01$) and employee empowerment ($\beta = 0.193$, $p < 0.01$). Thus $H2c$ and $H2f$ are supported. It can be concluded that customer focus has the greatest effect on market orientation followed by employee empowerment.

MRN 29,11	Variables	Loadings	Eigenvalue	Variance	Reliability
722	<i>Service quality</i>		8.240	68.669	0.96
	SQ1	0.828			
	SQ2	0.831			
	SQ3	0.852			
	SQ4	0.835			
	SQ5	0.904			
	SQ6	0.888			
	SQ7	0.852			
	SQ8	0.723			
	SQ9	0.656			
	SQ10	0.843			
	SQ11	0.851			
	SQ12	0.849			
	<i>Market orientation</i>		6.541	65.406	0.94
	MO1	0.794			
	MO2	0.856			
	MO3	0.866			
	MO4	0.808			
	MO5	0.836			
	MO6	0.865			
	MO7	0.735			
	MO8	0.750			
MO9	0.838				
MO10	0.722				

Table II.
Factor analysis of
service quality and
market orientation

Independent variables	Standardized beta
Management support and commitment	0.017
Employee involvement	-0.094
Employee empowerment	0.152*
Information and communication	0.374**
Training and education	-0.132
Customer focus	0.299*
Continuous improvement	0.255*
R^2	0.616
Adjusted R^2	0.587
F value	21.294**

Table III.
Regression results
between TQM practices
and service quality

Note: * $p < 0.05$; ** $p < 0.01$

Discussion

Results of this study indicated that information and communication was positively related to service quality and had the greatest impact on service quality as compared to the other six practices. One possible reason is that quality information and communication reporting systems are required in order to maintain the focus on customers' needs and keep track of service quality performance. Organizations should have the correct information to ensure all employees understand the organization and its processes. Therefore, to ensure the information is accurately and effectively

Independent variables	Standardized beta
Management support and commitment	0.153
Employee involvement	-0.047
Employee empowerment	0.193*
Information and communication	0.119
Training and education	0.103
Customer focus	0.293*
Continuous improvement	0.189
R^2	0.687
Adjusted R^2	0.663
F value	29.099*

Note: * $p < 0.01$

Table IV.
Regression results
between TQM practices
and market orientation

disseminated to the right person at the right time, organizations need to have a good communication system. Anjard (1998) mentioned that better communication could be accomplished if an organization implements TQM effectively. In TQM people are supposed to communicate more openly and frequently amongst each other.

Customer focus was also positively related to service quality. Thus a customer focus is very important in better quality service. This supports the argument by Patel (1995), that focusing on customer needs is important in delivering better quality service. Similarly for continuous improvement, it was found to be positively related to service quality which in translates into better quality both in the service and the manufacturing industry. Work processes and improvements are very much focused in TQM implementation (Antony *et al.*, 2002) in which employees will contribute more to the elimination of root causes instead of problem corrections.

Employee empowerment was also a significant factor in explaining the variations in service quality further supporting the literature. The positive relationship supports the argument by Geralis and Terziovski (2003) as well as studies made by Litton (2001) and Gilbert and Parhizgari (2000) in which they found that effective TQM practices improves quality and service. As mentioned by Dean and Helms (1996), both employees and managers must be committed enough and trust must be developed among them in order for the TQM implementation to succeed.

Meanwhile, employee involvement as well as training and education has no significant impact on service quality. One plausible reason could be that the measurement for employee involvement refers to teamwork, too much focus on team makes the individuals less responsive to their job because they always depend on the team's performance. This could lead to low performance, which in turn leads to low service quality. For training and education, this may have happened because the measurement used to measure the level of training and education practiced in the service organizations are more focused on the skills not on the delivery of service itself.

As for the relationship between TQM practices and market orientation, customer focus showed a positive relationship and had the greatest impact on market orientation. It was followed by employee empowerment. In reality, market orientation is related with customer orientation, therefore customer focus is important in market orientation. Customer focus has been considered by many researchers to be the most fundamental aspect of market orientation (Heiens, 2000; Deshpande and Farley, 1998). This is because the marketing concept encourages a business to be customer-focused

for success both in short and long term profits. Employee empowerment was also important because it has a favorable effect on employees' well being as well as productivity, performance and service quality, which then will give impact on market oriented behavior in the organization.

From the theoretical perspective, this study demonstrated the importance of TQM practices in the service industry. In addition it gives contribution to the literature in terms of the impact of TQM practices on market orientation. From the perspective of practice, demonstrating that different TQM practices impact service quality as compared to market orientation has a number of implications for the management of service organizations. It is important to know which particular TQM practice encourages the service quality and market orientation in service organizations. Managers of service organizations may then work on changing the TQM practices that fosters the service quality and market orientation in their respective organizations.

Managerial implications

Given the result that information and communication, customer focus, continuous improvement, and employee empowerment are the most significant TQM practices related to service quality, service organizations therefore need to find solutions on how to improve these practices. Information and communication can be enhanced using a proper communication system that can deliver accurate information which can be easily understood by all levels of employees. Besides, informal communication needs to be fostered. These will help in improving the quality of the service. Customer focus meanwhile can be increased by focusing on the needs and wants of the customers. It is important to make them feel satisfied with the services that the company offers. Relationship marketing is one good example that can be used by service organizations in order to attract customers to become loyal to their services. Continuous improvement can be enhanced through ongoing assessment and feedback. Also, proper problem solving actions are needed from the feedback which is aimed at improving the service quality.

As for market orientation, since the customer focus and employee empowerment are the most important practices, service organizations should take this into consideration and formulate plans on how to enhance customer focus and employee empowerment. Service organizations should emphasize continuous customer satisfaction assessment and also assess the current trends so as to increase the satisfaction level among the customers. It is important for service organizations to understand as well as respond to their customer's needs. As proposed by Griffin and Hauser (1993), a customer feedback system can be set up and frequent meetings with customers should be conducted for better understandings. Employee empowerment can be enhanced by using teams. Teams like work groups, task teams, functional teams, and self-management teams in many organizations are empowered to manage their work and therefore make faster decisions for the organizations. Proper organization of teams could contribute in expanding the market orientation. This is because working in teams can be more responsive and productive.

Limitation and suggestions for future research

This study covers only the northern region of Malaysia, more variations of results could be gained through a wider coverage of respondents. Gustafsson *et al.* (2003) discovered that the relationship between quality practices like TQM and business performance is dependent on the firm size. Also the business results are influenced by

individual quality practices such as employee management, process orientation, and customer orientation, depending on the firm size. Therefore, similar studies that consider other factors such as firm size, ISO certification, and nature of services should be conducted. In addition, this study focuses on the service organizations only. A comparison between service organizations and manufacturing companies could provide additional insights. Meanwhile, the self-reporting bias can be reduced with multiple responses from different individuals and management levels. Also, more variations of results could be gained by including more TQM practices.

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Conclusion

This study explored the relationship between TQM practices, service quality, and market orientation. Results have shown that only some of the TQM practices had significant effect on service quality and market orientation. There are different factors influencing service quality and another different set of practices influencing market orientation. TQM is not an easy practice to be implemented. It demands full commitment from various parties in the organization and requires some changes and restructuring that involves a large amount of time. However, TQM was, on average, implemented for only 4.83 years. This length may be one of the reasons why the implementation of TQM did not deliver much positive results in this study. According to Chin and Pun (2002), TQM stresses the mutual cooperation of everyone in an organization and associated business processes to produce services that meet the needs and expectations of customers. Also, quality is generally corporate-driven. Sometimes quality is sacrificed in meeting the bottom line output or immediate customer requirements. In some circumstances, organizations will never sacrifice quality. All these are also very much dependent on management style and organizational culture.

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