

The Effect of Organizational Culture towards Total Quality Management (TQM) Implementation in Malaysia Public Organization

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Abstract

The function of good culture of the organization can also help and support quality activities to be implemented successfully within the organization. Therefore, this study aimed to investigate factors that affect the implementation of Total Quality Management (TQM) in the government agencies in Malaysia. Specifically the objective of this study is to determine whether a significant relationship exists between organizational culture and TQM implementation. The quantitative survey method was used to collect the data and Malaysian government agencies was chosen as the sample for this study by applying a disproportionate stratified random sampling procedure. A total of 1,250 survey questionnaires was distributed to 47 government agencies in Pahang and only 277 were returned, giving a response rate of 22 percent. The findings indicated that significant relationships exist between organizational culture and TQM implementation. The study concluded with a discussion of the theoretical and managerial implications, and suggestions for future research.

Keywords: TQM implementation, organizational culture

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1. Introduction

With the era of globalization and with intense competition, organizations are very tough to survive. Consequently, an organization is quite arduous to compete since it requires more expeditious responses, services that efficiently and efficaciously, reliable service delivery and the integrity of the staff (Rohaizan & Tan, 2011). These phenomena have awakened many organizations to realize the importance of giving priority to quality (Rohaizan & Tan, 2011).

One of the methods to make changes in an organization, particularly in improving the quality of services is by implementing total quality management (TQM). According to Taleghani and Mousavian (2011), the importance of TQM in manufacturing and service organizations has increased significantly within twenty years ago.

The Government Transformation Program (GTP), was introduced in 2009 to transform the Government's effectiveness in the service delivery and to sharpen accountabilities for outcome (Economic Transformation Program, 2010). The Malaysian Government has introduced the concept of TQM in the public sector, although it has long been adopted by organizations and manufacturing companies around the world (Ab Hamid, Mustafa, Suradi, Abdullah, Ismail, M. Ali, Idris, Yaziz, & Mustofa @ Ismail, 2010). This statement also supported by Rohaizan and Tan (2011) that TQM in Malaysia has been implemented in larger organizations, especially in manufacturing companies, which then expanded its implementation in the service organizations (Bon, Mustafa & Rakiman, 2012). Therefore, the Government's efforts to achieve effective management of public services in Malaysia through TQM is a strategy to create an effective and efficient management. The fact makes TQM as a key factor in the public sector (Ahmad Sarji, 1993).

Previous researches supported that organizational culture is one of the main elements to the success of TQM implementation (Detert, Schroeder & Muriel, 2000; Beer, 2003; Edward Jr, 1999). Organizational culture is said to have a direct relationship to performance or commitment (Peters & Waterman, 1982; Kotter & Heskett, 1992; Sorensen, 2002). But, some researchers found that, organizational culture as mediator (Mohd Arshad, 2016; Benny Hutahayn, Endang Siti Astuti, Kusdi Raharjo & Djamhur Hamid, 2013) or moderator (Al-Swidi & Mahmood, 2012). Whilst Zeitz, Johannesson and Ritchie (1997) claimed that organizational culture is different from TQM even though there is a relationship between both variables. Due to the variances in the findings, the researcher aims to examine the variables of organizational culture and TQM implementation in one study.

2. Literature Review

TQM Implementation

TQM has many definitions. Gurus of the TQM discipline like Deming, Juran, Crosby, Ishikawa and Feigenbaum defined the concept in different ways, but still the essence and spirit remained the same. According to Deming (1989), quality is a continuous quality improvement process towards a predictable degree of uniformity and dependability. Juran (1992) defined quality as "fitness for use". According to him, every person in the organization must be involved in the effort to make products or services that are fit for use.

Various studies have been carried out to identify the factors for a successful TQM program, mainly from three different areas: contribution from quality leaders, formal evaluation model and empirical research.

Tamimi (1998) developed 8 factors and 32 elements based on Deming's 14 points and these instruments were tested among 178 manufacturing firms and services firms; Conca, Llopis and Tari (2004) and Tari used (2005) EFQM model to develop critical TQM factors, 12 constructs were identified. Motwani (2001) used prescriptive, conceptual, judgmental and empirical literature to identify critical constructs of TQM, same as Yusof and Quek (2003), Yusof and Aspinwall (1999), Zhang, AbWaszink and Wijngaard (2000), Ahire, Golhar and Waller (1996) and Antony, Kevin and Gand Gosh (2002).

Relating to customer satisfaction in the service organization in Malaysia, a study conducted by Sit, Ooi, Lin and Chong (2009) has proven empirically that TQM has a significant and positive relationship with a customer focus. Their study also revealed that the dimensions of leadership, customer focus, information and analysis as well as human resources have a positive relationship with a customer focus. Mostly, found that human resources as well as information and analysis has been seen as a dominant TQM practice because they have strong linkages with the organization focus on customer service in Malaysia. Meanwhile, the statement from Bon et al (2012), stated that different TQM practices studies have been made from different perspectives such as market orientation, customer orientation, customer satisfaction and service quality. However, a few important topics were not being discussed, such as the relationship between TQM and overall performance of the organization, particularly in the public service organizations that have not been studied (Bon et al, 2012).

Organizational Culture

Social scientists have explored the notion of organizational culture as perspective in organizational theory over the past decades. Brown (1998) states that *"current interests in organizational cultures, human resource management and from conviction approaches which emphasize the rational and structural nature of the organization to be unable to offer a full explanation of organizational behavior"*. Brown (1998) defines organizational culture as *"the pattern of beliefs, values and learned ways of coping with experience that have developed during the course of an organization's history, and which tend to be manifested in its material arrangements and in the behaviors of its members"*. This suggested that organizational culture is articulated in the organization, in order to shape the way in which organizational members should behave.

Research findings by means of organizational climate surveys that were conducted in the 1970's suggested that organizational culture seems to be a sophisticated approach to understand the beliefs and attitudes of the individual members about their respective organizations (Brown, 1998).

The origin of organizational culture from a national culture point of view is based, among others, on the work of Deal and Kennedy (1982). According to this view, organizational culture is seen as being central to organizational success rather than factors such as structure, strategy or politics. As a result the attention shifted away from national cultures and focused more on organizational culture.

Organizational Culture and TQM Implementation

Organizational Culture and TQM are closely interlinked though it is different (Baird, Crystal & Reeve, 2011; Zeitz et al, 1997). The study by Baird et al (2011) showed that the three cultural factors; Results orientation, teamwork/respect, and innovation showed a significant positive relation to the level of TQM practices. These findings emphasize the importance of organizational culture which usually in a conducive environment to TQM implementation.

TQM will be easier to implement in the work environment and culture that encourages collaboration and the nature of the cooperation between the employees (Baird et al, 2011). Attempts of TQM implementation in the organization will fail if there are no changes in the culture. Long-term commitment to the work of quality and continuous improvement in management is necessary for a fundamental change of culture. Therefore, management should know how to deal with the challenges. Changes must be made, not only to continue the implementation of the policy and continue the existing organizational system. According to Bright and Cooper (1993), some researchers had previously supported the idea of where TQM can influence organizational culture in depth. TQM programs appeared much different from the culture in which the organization adopted TQM (Shortell, O'Brien, Carman, Foster, Hughes, Boerstler & O'Connor, 1995). This is consistent with the view that culture, are largely determined by the actions of management, but rather, cultural determining management actions (Bright & Cooper, 1993).

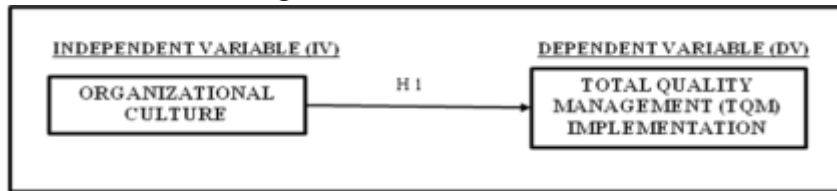
Previous studies have found that organizational culture is one of the important characteristics of a successful implementation of TQM (Detert et al, 2000; Beer, 2003; Edward Jr., 1999). When we talk about TQM and culture resulting from imperfect boundaries between TQM as a set of management practices and TQM as organizational culture is a common challenge faced by researchers (Batten, 1993; Kanji, 1997; Strolle, 1991). However, Zeitz et al (1997) claimed that the organizational culture is different from TQM practices, although both are closely related to each other.

According to Akbari, Hasani and Arabi (2012), existing studies have shown that TQM and organizational culture are an important element to maintain the competitiveness of the organization. The results of their research in the physical education organization in Iran showed that organizational culture has a positive impact on TQM. The variables of organizational culture are one of the main factors to explain the organizational outcome (Prajogo, 2005), it has increasingly attracted attention of researchers to explain the organization's strategy in describing the theory of organizational change. In other words, the existing literature on the role of organizational culture in the implementation of the strategy and the organization is not fully explored in the early phase (Prajogo & Sohal, 2001). Based on these facts, the role of organizational culture in the strategy implementation still needs more empirical study. Therefore, this study was an attempt to bridge the gap in the literature.

In the Malaysian context, the studies have shown that organizational culture affects several aspects of the organization such as financial performance (Rashid, Sambasivan & Johari, 2003; Yusoff, 2011), the level of integration and value creation in strategic alliances (Sambasivan & Yen, 2010), attitudes toward organizational change (Rashid, Sambasivan & Rachman, 2004), and innovation (Asmawi & Mohan, 2010). According to Yafang Tsai (2011), organizational culture itself is defined as a belief that can guide employees to know what to do and what not to do, coupled with the practices, values, and assumptions about their work.

In the light of the previous arguments, and other supporting arguments between organizational culture and TQM implementation, the following hypothesis is proposed: Organizational culture has a significant relationship with TQM implementation. Figure 1 depicts the research framework.

Figure 1: Research framework



2. Methodology

The data from this study were collected from staff of Malaysian Government Agencies at Pahang State. Basically, these above mentioned agencies located in town area were chosen due to geographical convenience for accessibility of the respondents. Past researches in an education context for examples: Arokiasamy, Ismail, Ahmad and Othman (2007), Noordin and Jusoff (2009), and Santhapparaj and Alam (2005) have also drawn most of their samples from town and therefore have supported in terms of external validity of a generalization of the findings (Ariffin, 2006; Sekaran, 2005). Based on the total population of government servant from 47 Pahang State Agencies amounting to 10,866, the appropriate sample size is 375. This amount was selected based on the size of the sample developed by Krejcie and Morgan (1970) where 375 numbers of respondents involved are based on the minimum sample size to be used. This statement is also agreed by Roscoe (1975) that supports sample size of more than 30 and less than 500 is suitable for most studies. A disproportionate stratified random sampling procedure was used to select the respondents for this study, because several layers or strata is small-sized compared to other populations of the target strata which have a larger number of public service staff. Disproportionate stratified random sampling has the advantage, because it's easier to manage, simple and low cost to collect data from one or more from other strata (Sekaran, 2005; Babbie, 2005).

The research measurements adapted from Zeitz et al (1997) using five likert-scale (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree). The Cronbach alpha is used as an indication of instrument reliability and this is the most common method used to estimate the internal consistencies of constructs (Onwuegbuzie & Daniel, 2002). A value of 0.70 in the Cronbach's alpha is considered adequate to ensure reliability of the internal consistency of the questionnaire (Nunnally, 1978). Flynn, Schroeder, and Sakakibara (1994) argue that a Cronbach's alpha of 0.60 and above is considered an effective reliability for judging a scale. Thus, the Cronbach alpha value of Organizational Culture and TQM Implementation variables are 0.944 and 0.966 respectively.

Table 1 below depicts the two research measurements used in this study.

Table 1: Research measurement

Variables	No. of items	Likert Scale	Cronbach Alpha Value	Source
Organizational Culture	16	5	0.944	Zeitz et al (1997)
TQM Implementation	28	5	0.966	Zeitz et al (1997)

The questionnaire was originally designed in English, but was translated into Bahasa Melayu. This was done by following the recommendations of Brislin (1970, 1986). Translation is made with reference to two lecturers, a Professor and a Senior Lecturer translated the survey questions into Bahasa Melayu (Yussuf, 2015; Murjan, 2012). For the purpose of this study, self-administered survey questioned was distributed to 1,250 respondents of Malaysian Government agencies to ensure a good representative sample (Zikmund, 2003). Ramayah, Yan and Sulaiman (2005) said that the response rate was around 10 to 20 per cent, while Ainin, Kamarulzaman, Farinda and Azmi (2010) in their study found only 15 percent. Based on these statements, researcher assumed that only 20 percent of the overall distribution of survey questions. Hence, the researchers distributed a total of 1,250 survey questions to the respondents. From the 1,250 distributed questionnaires, 277 were returned, representing a response rate of 22%.

3. Results and Discussion

Multiple regression and correlation analysis were conducted to examine the relationship between the study variables and to test the research hypotheses. The adequacy of the model was confirmed by checking the regression assumptions, such as linearity, normality, homoscedasticity and error independence. In addition, the data revealed that the data had no issue of the multicollinearity and there were no outliers observations. The mean, standard deviation and the correlations among the variables of the study are illustrated in Table 2 providing initial support of the model framework.

Table 2: Descriptive statistics and correlations

	Mean	Standard Deviation	Organizational Culture	TQM Implementation
Organizational Culture (OC)	4.05	0.46	1	
TQM Implementation (TQM)	3.94	0.42	.762**	1

****.** Correlation is significant at the 0.01 level

From this study, the correlation of the organizational culture and TQM implementation as depicted in Table 2 above is 0.762. This indicates a strong relationship between organizational culture and TQM implementation.

The average or mean score is the method most commonly used to describe the central tendency or propensity of a centralized set of data collected. Thus, the mean score of organizational culture is 4.050 and TQM implementation is 3.940. The standard deviation of organizational culture is 0.464 and TQM implementation is 0.418. All the standard deviation is below the value of one (1) indicating that there is diversity in the data (Sekaran, 2005).

Table 3 below, demonstrated that all the tolerance values were higher than 0.1 and the VIF values were lower than 10 indicating that the issue of multicollinearity was not a serious issue (Hair, Black, Page & Samouel, 2010). In conclusion, these results showed that TQM and OC even highly correlated yet distinct in measuring their own concepts.

Table 3: Collinearity analysis

Variables	Collinearity Statistic	
	Tolerance	VIF
Organizational Culture	0.620	1.614

Dependent Variable: TQM Implementation

Table 4 below demonstrated multiple regression analysis between organizational culture and TQM Implementation

Table 4: Regression analysis^a

Variable	Beta Coefficient	T	Sig
Organizational Culture	0.686	14.317	0.000

a. Dependent Variable: TQM Implementation

From the regression analysis result as depicted in Table 4 above, it showed that there is a significant relationship between organizational culture and TQM Implementation ($\beta=0.686$, $p=0.000$). Besides correlation, it is another evidence that showed, the organizational culture is a variable that affects the implementation of TQM. Therefore, Hypotheses 1 is supported.

Table 5 below, demonstrated the model summary of the research framework:

Table 5: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.762 ^a	.581	.580	.271	1.717

a. Predictors: (Constant), Organizational Culture

b. Dependent Variable: TQM Implementation

From model summary as depicted in table 5 above, the independent variable of organizational culture shows that, the model affects 58 per cent of the variation (R square/(R²). This showed that organizational culture predicted 58 per cent TQM implementation model as a set of predictor and the balance of 42 per cent may be contributed by other factors that not included in this study.

The findings are consistent with studies of Akbari et al (2012) in which TQM and organizational culture are the important elements to maintain the competitiveness of organizations and it supports the study by Yafang Tsai (2011) in which the culture of the organization is able to guide employees to know and understand their tasks.

Results also show that respondents have helped researchers in analyzing the existence of a significant relationship between organizational culture and TQM practices in Malaysia public organizations. The study is helping researchers since the majority of respondents agreed with the importance of TQM practices in their organizations. The researcher explains more about the findings of a study conducted by the research instrument that has been established through a questionnaire to the respondents. The

researchers also received more detailed data about TQM practices in Malaysia public organizations. The data collected and analyzed clearly show that there is a significant relationship between organizational culture and TQM implementation.

4. Conclusion

Like other studies, this study also faced with limitations. The scope of the study only focused on government agencies and it is difficult to generalize the findings. In addition, a limited time, limiting the study to get more results of previous studies related to organizational culture and TQM implementation.

The researchers hope that this study should be reviewed by the future researchers by taking into account other factors such as the factor of leadership, environment, job satisfaction and motivation that may improve the TQM practices and implementation in their organizations. Future research can be done to different clusters such as private organization, non-government agencies (NGO), small-medium enterprises (SME), higher learning institutions and others.

This study contributes to theory and practice in the area of organizational culture and TQM implementation and also to the understanding of the factors that explain TQM implementation in Malaysia public organizations. Specifically, the finding of this study will provide additional insight into how organizational culture affects TQM implementation in Malaysia public organizations.

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