THE IMPACT OF CULTURE OF QUALITY (COQ) ON THE ORGANIZATIONAL PERFORMANCE

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ABSTRACT

Culture of Quality (COQ) is regarded as an important component of TQM however this is a relatively new theme, compared to other concepts in the quality management domain. However, literature resources on this topic are relatively scarce and there is a lack of empirical validation of the COQ framework. This study therefore aims to investigate the dimensions of the COQ and the role it plays in an organization to improve its performance. A set of hypotheses are proposed and empirically tested based on the 120 survey responses from mostly from Asian region. Findings show that COQ dimensions; leadership emphasis, message credibility, peer involvement and employee ownership encourage better employee performance. The study addresses an important research gap by empirically investigating the COQ dimensions and suggesting that from an employee perspective, organizational performance can be accelerated through quality culture management.

Keywords: COQ, leadership emphasis, message credibility, peer involvement, employee ownership, empirical study.

1. INTRODUCTION

Organizational culture has long been acknowledged to be important for the success of an organization. It is increasingly evident that top management must have an explicit focus on the development and maintenance of their organization's culture (Gore, 1999). In recent years the COQ (Culture of Quality) has emerged as a popular topic. The discussion on quality appeared early when Deming, a popular quality management expert from US, rose to prominence in the 1980s as a strict commenter of business and a tireless advocate for the techniques of statistical quality control (Tsutsui, 1996). The concept of TQM has gradually formed in the next several decades since then. Gore (1999) compared the organizational culture with TQM and indicated that 'people believe organizational culture is essential to the success of an organization in a long period. It is more and more obviously that leadership should pay precise attention to the

development and stability of the organizational culture. Managers need to think about the culture that has been generated'. Other researchers also devoted to the development of TQM. However, Sabella, Kashou and Omran, (2014) found that most of time, the successful execution of TQM could not match operational performance improvement. Gore (1999) come up with the idea that TQM provides a framework for building an organizational culture that will equip an organization to continuously learn and improve. Whereas Alotaibi (2014) points at the importance of working with employees to ensure commitment at the top, and being customer-centric. Alotaibi (2014) regarded quality culture as one of the most crucial points to improve organizational competitiveness as he showed that all TQM factors have a significant relationship with quality culture. In the same year Srinivasan and Kurey (2014) defined a 'true culture of quality' through a wide range of interview investigation. They pinpointed four factors that drive quality as a cultural value: leadership emphasis, message credibility, peer involvement, and employee ownership of quality issues.

Nevertheless, it is hard to discover further study of quality culture. Several research attribute Tejaningrum, Azis, and Irjayanti (2016)'s creation of a quality culture model for small and medium companies. Tejaningrum (2016) did research on how process capability and quality culture influence each other. Among all these studies, there are only a few studying the culture of quality based on primary data for the reason that management innovation is a long-term change which is difficult to realize. Although the concept of quality management has been studied for quite a long period, the existing research about creating a culture of quality is insufficient. This study is therefore motivated with growing prominence of culture of quality and associated research gaps. The study attempts to empirically validate the culture of quality model proposed by Srinivasan and Kurey (2014) and also explore its relationship with employee and organizational performance.

Rest of the paper is organized as follows. Section 2 presents an overview of the conceptual underpinning starting with historical development of quality management, TQM and then moving on to the dimensions of culture of quality, employee performance and organizational performance. Section 3 presents the research methodology followed in this study together with the data collection process. Section 4 presents the findings of the study and finally Section 5 concludes the study.

2. THEORETICAL FRAMEWORK DEVELOPMENT
2.1 History of Quality Management

Organizational culture has long been acknowledged to be important to the success of an organization. It is increasingly evident that top management must have an explicit focus on the development and maintenance of their organization's culture (Gore, 1999). Gore (1999) indicated in their study that specific elements of culture were stronger in organizations practicing TQM than where there had been a reengineering effort. The study also suggested that there was more likelihood of success where these cultural elements were present. The links between culture and performance, and specifically success with improvements, deserve additional research. Cameron and Sine (1999) introduced a framework of organizational quality culture in the study. It was explained to be generated due to failure regarding quality initiatives and vague connection with effectiveness. According to Irani, Beskese and Love (2004), many researchers, if not all, agree that Total Quality Management is somehow linked to organisational culture. The term 'Total Quality Culture' is frequently used in the literature, but there still exist a disagreement on whether TQM involves changing a culture to achieve total quality or whether it means using the existing culture. Roldán, Leal-Rodríguez, and Leal (2012) also mentioned this quality culture typology and quoted

'the quality culture of an organization is a subset of an organization's overall culture. It reflects the general approach, the values, and the orientation towards quality that permeate organizational actions. The key advantage of treating quality as a cultural variable is that the ambiguity associated with the multiple definitions and dimensions of TQM diminish.'

However, through research of ethical leadership in organizations, Bachmann (2017) found that recent concern in some operating machine factories was concluded as 'Speed is more important than quality', rather than the traditional pursuit of perfect quality. Bachmann (2017) later indicated that it was the wrong idea for workers as well as for leaders.

2.2 Total Quality Management (TQM)

According to Dahlgaard and Mi Dahlgaard-Park (2006), the new management philosophy, Total Quality Management (TQM), first appeared in the late 1980s due to the wake-up of western world after studying Japanese management method. In 1988, quality control had developed into a holistic management philosophy, which was not only dealing with production but also all other processes in the company and all types of industries including services of any kind (Dahlgaard & Mi Dahlgaard-Park, 2006).

The term 'Six Sigma' is a quality management method related to TQM. In fact, the six-sigma methodology was first introduced in the USA in 1985 at Florida Power and Light (FPL) when the company decided to apply for the Deming Prize. Dahlgaard and Mi Dahlgaard-Park (2006) studied Motorola's steps to achieve Six Sigma management and through their analysis, they illustrate that the principles, concepts and tools of lean production and Six Sigma should not be seen as alternatives to TQM but rather as a collection of concepts and tools, which support the overall principles and aims of TQM.

Gore (1999) believed that TQM can create a culture and it is that aspect of TQM that managers must focus on. Later Kaluarachchi (2010) found that the success of TQM is strongly related to supportive culture in the Sri Lankan case study. Moreover, there are initiatives generally described as a part of a TQM effort that directly lead to creating a culture with very specific characteristics that support change and improvement. These initiatives as outlined in the Baldrige Criteria include: participative management and openness (supported by encouraging employee involvement, empowerment, the use of teams, education and training, and extensive communication), a rational approach (fact based decision making, clear mission, objectives, statistical tools and statistical process control, evaluation and improvement cycles, etc.), flexibility (customer focus, continuous improvement), and integrity (emphasis on values, public responsibility) (Gore, 1999).

2.3 Culture of Quality (COQ)

Quality means everything in almost all industries. According to Ilies, Sălăgean and Beleiu (2017), a culture of quality (COQ) refers to orienting the organizational culture towards the TQM requests. Regarding the components of organizational culture, quality culture involves creating or changing, shaping the beliefs and values of the organization's members on the awareness that everyone must do things right the first time and every time, and that all the organizational activity must be improved continuously by involving each member of the organization in achieving and improving quality. The process of continuous improvement is reflected in the performance and the market competitiveness. These beliefs and values determine quality-oriented attitudes and behaviours, such as customer focus, accountability, and involvement in quality achievement.

Srinivasan and Kurey (2014) mentioned that under pressure from compressing cycle times and high error likelihood, managers have to find a new approach to quality, which moves beyond

the traditional 'total quality management' tools in the past. As for the quality culture, there are four essential factors that are going to discuss below based on the work of Srinivasan and Kurey (2014).

2.3.1 Leadership Emphasis

As the first factor, Srinivasan and Kurey (2014) indicate that leadership emphasis means that an ideal thinking of organizational culture usually begins in leadership if they want to convince their employees of quality importance. Dahlgaard and Mi Dahlgaard-Park (2006) also regarded leadership as one of the essences of TQM, lean production and Six Sigma. Bachmann (2017) studied the pivotal role that ethical leadership or leadership culture played in organizations and answered the question about little change in business behaviour. These studies show that top management should act as a model in persisting quality.

2.3.2 Message Credibility

Guaranteeing the credibility of information delivered to the workers is important. Generally, in an organization, message credibility is related to communication flows. According to Srinivasan and Kurey (2014), smart leaders realize that quality messaging, like any campaign, needs to be updated constantly. Managers should regularly test messages with their employees and use the feedback to ensure sustained relevance. Nordback, Myers and McPhee (2017) have concluded that employees' perceptions about flexibility were linked to communication with supervisors and co-workers that shaped their agentive powers, behaviours, and relationships.

2.3.3 Peer Involvement

To increase the execution efficiency, it is necessary to get everyone engaged. Srinivasan and Kurey (2014) took HGST (formerly Hitachi Global Storage Technologies) as an example to indicate that measures like organizing friendly quality competition and putting positive social pressure are useful for encouraging employees to generate quality initiatives. Effective teamwork and —more generally— team management are essential elements to take into account in order to foster KM (Knowledge Management) and successful organizational learning (OL) processes (Vivas-López, 2014).

2.3.4 Employee Ownership

Srinivasan and Kurey (2014) believe that one of the defining traits of an organization with a true culture of quality was that employees were free to apply judgment to situations that fell outside the rules. Thus, the researchers said that providing the right level of guidance was the key. Employee ownership affects organizational productivity since employee satisfaction sometimes decides how much they would devote themselves to individual work. Javed (2018) regards efficiency as a relative productive performance, which is a maximization of productivity ratio. Organization for Economic Corporation and Development (OECD) defines efficiency as 'the degree to which a production process reflects best practices'. In the researcher's opinion, shared ownership with employees has significant and growing contribution in academia and corporate world of the developed countries. This form of ownership has also been adopted in the developing countries. The focal point of the policy makers and advocates of this scheme is alignment of interests of the managers with the shareholders and its impact on organizational productivity.

Creating the COQ mainly requires but not limited to the four factors mentioned above. Whatever the measure is, the aim of COQ study is to bring better performances of both employees

and organizations. In the next section, the impact of quality or quality culture on the two performances would be summarized from different literature.

2.4 Employee Performance

Good culture of quality is not just created among employees but encourages better employee performances. Kristianto and Rivai (2018) consider that improvement of the company's internal condition through human resources aims to strengthen and enhance the existence of companies in the face of local and global competition that will be more stringent. This means the company must improve the performance of the company by improving the performance of its employees. The development of the company cannot be separated from the role of each of the human resources in it. Factors of quality culture contribute to the intensification of employee performance. In most cases, employee performance leads to organizational performance, directly or indirectly.

2.5 Organizational Performance

Research evidence shows that employee ownership improves employees' effort and motivation which consequently enhance firm performance (Kim and Patel, 2017). The high-quality relationship between a leader and followers enable a better comprehension of dyadic issues and enable both parties to easily tackle them, which would result in better performance, not only from the individual subordinates, but would result in better performance throughout the organization. The findings of this study recognized that rapport between leaders, followers, and market orientation are the key elements in understanding the important constituents that influence organizational performance (Lo et al, 2015).

2.6 Research Gap

Although the concept of quality management has been studied for quite a long period, the existing researches about creating a culture of quality are insufficient in recent years. The literature review is based on the study of quality culture essentials from Srinivasan and Kurey (2014). Others, for example, Tejaningrum (2016), Tejaningrum, Azis, and Irjayanti, (2016) also talked about quality culture and capabilities process supply chain, as well as quality culture model for SMEs respectively. Among all these studies, there are only a few studying the culture of quality based on primary data for the reason that management innovation is a long-term change which is difficult to realize. There is also insufficient literature directly related to the dimensions of quality culture. This study therefore proposes following conceptual framework and a set of hypotheses derived from the literature which will be empirically validated through the survey data.
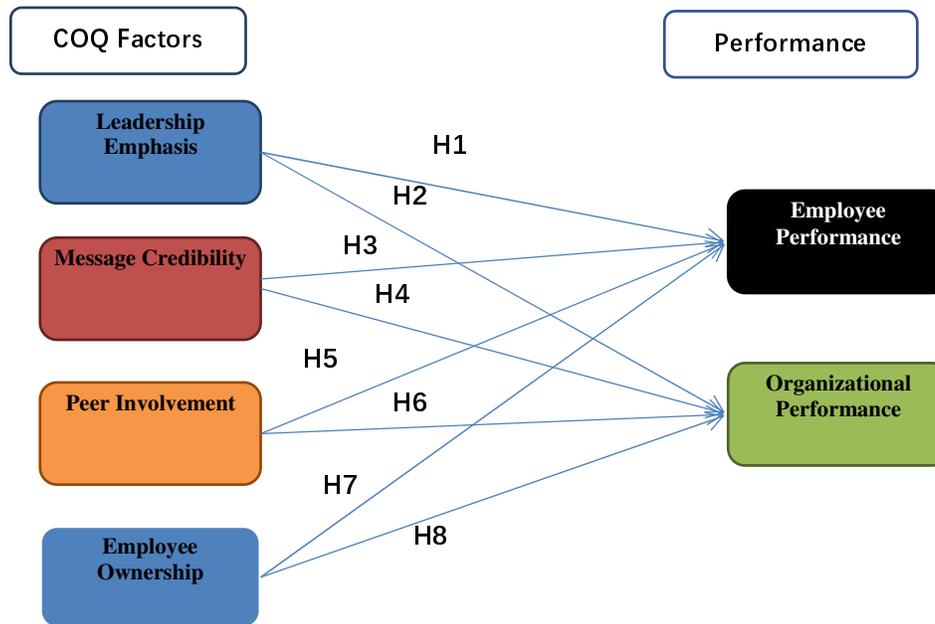
Figure 1. Conceptual Framework and Hypotheses

Based on the discussion presented in previous section and the conceptual framework (See Figure 1) following hypotheses are generated:

H1: A greater emphasis on leadership affects the employee performance positively
H2: A greater emphasis on leadership has a positive impact on organizational performance
H3: Improving message credibility will positively impact employee performance
H4: Improving message credibility will positively impact organizational performance
H5: Peer Involvement will have a positive impact on employee performance
H6: Peer Involvement will affect organizational performance positively
H7: Employee Ownership will positively influence employee performance
H8: Employee Ownership will positively influence organizational performance

3. METHODOLOGY

The study adopts a survey design to explore the interrelationship between quality culture dimensions and its impact on employee as well as organizational performance. The online survey was created using Qualtrics and distributed via an anonymous link to more than 400+ respondents. The survey questionnaire consisted of six parts. The first part included three questions on personal information whereas rest of the survey was divided into five parts, including leadership emphasis, message credibility, peer involvement, employee ownership, and employee performance and organizational performance. Data from the survey was exported to Excel and SPSS for further analysis. The study employs descriptive analysis, correlations and regressions to analyse the data. In this research, dependent variables refer to employee performance and organizational performance, while independent variables refer to the four quality culture dimensions.

4. FINDINGS

The survey questionnaire resulted in 134 responses. However, after careful evaluation it was found that 14 responses were partially incomplete. These responses were therefore deleted from the sample which resulted in final sample size of 120 responses. As this survey was sent to around 450 respondents, effective survey response rate of 26.6% was obtained. The data showed that majority of respondents (92.50%) were from Asia, 5.00% respondents were from Europe, 0.83% in North America, 0.83% from South America and 0.83% from Australia. In terms of their position 8% were CEOs, 18% were Senior Managers, 16% Quality Managers, 54% General Employees whereas 4% did not specify their positions within their organisations. With regard to the size of the organisations 54.17% of participants work for companies with over 250 employees. Around 9.17% of participants were working for companies with 101-250 employees, while 15% for companies employing 51-100 employees and 21.67% respondents were from companies employing less than 50 people. So essentially, 54.17% respondents came from large organisation whereas 45.83% respondents came from Small and Medium Enterprises (SMEs).

Respondents were then asked about their level of awareness about the TQM and around 56.67% of respondents were well familiar with the term however interestingly 43.33% respondents said 'No'. TQM has been raised for decades however the result does not show an optimistic view of the quality awareness as expected. It indicates that in many organizations, quality management is still not very well established or communicated among employees. The findings further revealed that around 82.50% of respondents believed the combination of top management supervision and employee consciousness is the best way to establish a culture of quality. However, only 3.33% of respondents regard top management supervision as a more effective way whereas 14.17% of respondents expressed that they are more likely to increase the COQ awareness of their own.

In order to test the hypotheses, a correlation analysis was conducted. Prior to correlation analysis, reliability analysis was performed on the measures of the key variables leadership emphasis, message credibility, peer involvement, employee ownership, employee performance and organisational performance. All the measures met the threshold Cronbach's Alpha value of .70. The correlation analysis is shown in Table 1. Generally, studies regard Pearson correlation values between $0.000<r<0.300$ as a weak correlation, $0.300<r<0.500$ as a low correlation and $0.500<r<0.800$ as a moderate correlation. Correlation analysis shows that all variables are significantly correlated with each other. H1 stated that 'A greater emphasis on leadership affects the employee performance positively', our findings indicate a moderately significant correlations between these variables confirming our first hypothesis. Similarly our findings show support for H2 as correlation between leadership emphasis and organisational performance was positively correlated (0.309). Correlation between message credibility and employee performance was also positive and moderately significant (0.511) thus supporting H3. Similarly message credibility and organisational performance was also found to be positively correlated (0.361) confirming H4. Correlation analysis also confirmed rest of the hypotheses (H5-H8) as it showed there is a positive correlation between all the variables. The findings showed a moderate and positive correlation between peer involvement and employee performance (0.591) (H5). Peer involvement and organisational performance was weakly correlation (0.197) (H6). Employee ownership and employee performance was moderately correlated (0.649) (H7) whereas and a low correlation (0.392) was found between employee ownership and organisational performance (H8).

Table 1. Correlation Analysis

Variables	Leadership Emphasis	Message Credibility	Peer Involvement	Employee Ownership	Employee Performance	Organisational Performance
Leadership Emphasis	1					
Message Credibility	0.638**	1				
Peer Involvement	0.489**	0.433**	1			
Employee Ownership	0.531**	0.343**	0.510**	1		
Employee Performance	0.644**	0.511**	0.591**	0.649**	1	
Organisational Performance	0.309**	0.361**	0.197*	0.392**	0.460**	1
. Correlation is significant at the 0.01 level (2-tailed).						
*. Correlation is significant at the 0.05 level (2-tailed).						

5. SUMMARY, DISCUSSIONS AND CONCLUSION

This study empirically investigated the interrelationship between the culture of quality dimensions and its impact on employee and organizational performance. The four dimensions of COQ are based on Srinivasan and Kurey's (2014) work on creating a culture of quality. To expand their research, eight hypotheses (H1-H8) were proposed and tested in this study. The data for the study was collected using a survey based approach and findings are presented based on 120 valid responses.

The literature review identified the four dimensions of culture of quality. The study contributes to the limited research on COQ and provides empirical validation of the COQ framework proposed by Srinivasan and Kurey's (2014). Through the survey, the relationship between each of these dimensions of culture of quality and how they affect the performance of enterprises were investigated. The study found that quality of culture factors not only affect organizational performance and employee performance, but also influences each other internally and mutually. This goes against what Beer (2003) indicated that to achieve reliable quality outcomes, TQM requires that employees follow standardized methods. As a result, employees undoubtedly experience a loss of freedom and increased control. What our study suggested was giving more autonomy to employees to positively influence company performance. Most of the researchers focused on teamwork as a similar topic to peer involvement. This study drew people's attention to this factor and helped participants update their understanding.

Since leadership emphasis, message credibility, peer involvement and employee ownership are found to encourage better employee performance, organizations should work on ensuring supervision from top to bottom, accelerating information flow, creating autonomous working environment and getting staff involved in strategic management. After all, better individual achievement leads to satisfying organizational performance. Our research findings also strongly recommend that companies should improve their performance by making good use of the COQ factors. If companies realize the interrelationship between COQ factors, they could make progress by either pushing each factor or letting them work mutually. For example, sometimes a company might not think of integrating leadership and peer involvement as one target, letting powerful leadership accelerate great peer involvement and vice versa, when it takes repeated measures to strengthen both two factors respectively. In fact, the two different ways lead to the same result,

that is, better organizational performance. With a good top management, employee ownership will be strengthened, and updated information will be delivered. Meanwhile, employees will be willing to take part in building a culture of better quality. All of the factors hence lead to a healthily growing company.

There are some limitations with this study. The findings are based on only 120 valid survey responses mostly from Asia. The study would benefit in the future by having a broad array of responses from various regions. Increased survey responses would also add to the generalisability of the findings. Having a cross comparison between the regions will help to tease out the differences. It would be interesting to see how COQ relationship behaves under regional and cultural diversity. The use of expert interviews in conjunction with survey will further enhance the credibility of the findings.

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