

Exploring Culture Dimensions and Enablers in Quality Management Practices : Some Findings

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Abstract

Although many adherents openly praise the importance of quality management practices (QMP) in organisations, others have identified significant costs and implementation obstacles. Some recent studies showed that QMP have failed due to the ignorance of quality cultures. How to improve the success rate of QMP in organisations has become a critical issue both in the academy and in practice. This paper discusses the common enablers of and cultural impacts on QMP. It explores the dimensions of national versus organisational culture, and identifies the main features of four quality culture models as advocated in the literature in relation to facilitating QMP in organisations. It was found that flat structures, decentralised functions, empowerment, flexibility, innovation, limited rules and regulations and teamwork favor the QMP implementation. For facilitating culture changes for QMP, values associated with low power distance, low uncertainty avoidance and collectivism would have to be nurtured. Further research is needed to incorporate the findings and develop a practical quality culture approach for real applications in industry.

Key Words: Quality Culture, Models, Implementation, TQM, QMP

1. Introduction

In an effort to improve their competitive edge, many companies have taken initiatives to employ different quality initiatives (e.g. Malcolm Baldrige Award, European Quality Award, ISO 9001: 2000, Total Quality Management (TQM), Six sigma, and Lean manufacturing among others) in one form or another[1]. Collectively, these quality initiatives are referred to quality management practices (QMP). There is a lot of literature on the impact of QMP on organ-

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isational performance, some argued that QMP have contributed positively to the organisations' performance as in the case of Xerox, Motorola, Ford and General Motors[2]. Although many adherents openly praise the importance and benefits of adopting QMP in organisations[3, 4], others have identified significant costs and implementation obstacles[5~8]. Critics have suggested that many failures have been attributed to the pre-existence of factors that conflict with the philosophy and practice of these initiatives[3]. Many researchers (e.g. [5, 9, 10]) have ascertained that the failures were attributable to the ignorance of quality cultures.

For the purposes of this study, QMP is defined as the activities that are planned, developed and/or implemented in compliance with the philosophy and requirements to TQM and/or ISO 9001: 2000. There has been many discussions on whether organisational culture determines the success of QMP or QMP modifies organisational cultures[8, 11]. For instance, Projogo and McDermott[8] explored the relationship between TQM practices and organisational culture in Australian organisations and found that organisational culture is a predecessor to TQM and the soft factors of TQM (e.g., behavioral and cultural) are the larger manipulator of organisational performance. Many industry cases showed that culture affects the success of QMP[12~14], and organisational culture should be compatible with the quality values[10, 15, 16]. This paper discusses the common enablers of, and cultural impacts on QMP. It explores the dimensions of national versus organisational culture and identifies the main features of quality culture models as advocated in the literature.

2. Enablers and Disablers of QMP

Many organisations implement QMP effectively and achieve numerous benefits, for instance, a reduction in errors/waste, improved profit margins, optimisation of company processes, competitive advantage, accessing new internal and external markets and raising productivity[4]. For instance, in a study done by Prabhu *et al.* [17] on businesses in North East England, it was found that 74% of TQM and 28% of ISO 9000 companies achieved potential winning and world class status. Lagrosen[18] found that the quality of products was high in organisations employing QMP in the United Kingdom (UK), Germany, France and Italy. Idris and Zairi[19] also contend that Malcolm Baldrige National Quality Award winners experience performance benefits after 5~10 years of QMP implementation.

There are many external and internal enablers that drive organisations in the pursuit of QMP[19, 20]. Typical internal enablers/drivers are to enhance profitability and operational ef-

Table 1. Enablers and Drivers of QMP

	Al-Khalifa and Aspinwall [20]	Bugdol [22]	Kanji and Yui [15]		Lo [16]	Mathews <i>et al.</i> [7]	Salheldin [23]
Country or City	Qatar	Poland	UK	Japan	Hong Kong	UK/ Portugal/ Finland	Egypt
External Enablers and Drivers							
To stay in business/competition/trade/mar ket advantage		√	√	√		√	
To promote exports						√	√
To attract more foreign investments							√
To improve marketing/publc relations/advertising					√		
To sustain external environment				√			
To satisfy customer demand/ pressure from customers	√	√			√	√	
To make the customer the focus of business processes	√		√				√
Internal Enablers and Drivers							
To improve org efficiency/reduce wastage	√				√		
To improve product quality							√
To have CEO insight/management commitment			√	√		√	√
To improve operational efficiency	√	√	√	√	√	√	√
To foster employee involvement							√
To improve communication						√	√
To achieve positive change			√				√
To motivate employees						√	
To increase awareness of quality	√	√	√	√	√	√	√
To optimise resources needs						√	

iciency (e.g. reducing wastage and optimising resources usage), improve the product/service quality, foster management's commitment and employee involvement, improve communication, motivate employees and achieve positive change in organisations. External enablers/drivers are to maintain a competitive edge, attract foreign investors, promote exports and satisfy customers against pressures from environment. Table 1 depicts various common enablers and drivers of QMP.

Nevertheless, many QMP initiatives are not successful as planned. Recent studies have attributed the QMP failures to lack of commitment from top management and employee resistance[21~23]. Many disablers, such as negative work climate, lack of quality culture, culture differences and inability to change culture, are also curtailing QMP accomplishments[16, 22, 23].

3. Introducing Culture and Related Models

National cultures have been defined in hundreds of ways. Hofstede[24] defined culture as 'the collective programming of the mind which distinguishes the members of one group or category of people from another.' The most important aggregate of culture is national culture. This represents the shared values of people within a certain national environment learned from the socialisation process of the society[25]. There is an intimate relationship between national culture and organisational culture. Lagrosen[6] argues that companies cannot develop an organisational culture which differs substantially from the prevailing cultural factors of the country in which it operates.

National culture influences organisational culture. Anwar and Jabnoun[25] explain that organisational culture is the shared opinion of daily practices gained from workplace socialisation. The literature identified the organisation as having a number of cultures in what is called, multiple cultures or pluralist cultures[8, 26]. Although organisations have multiple cultures, there is a predominant or overriding culture. These multiple cultures can be enhancing cultures (i.e. amplify dominate culture), orthogonal cultures (i.e. accepts dominant culture) and counter cultures (i.e. challenge dominate culture). There is also no evidence that a single culture produces better results than pluralist cultures[27]. Sopow[28] advocates that both hereditary and developmental factors shape organisational culture. Whilst organisational culture is the deeply rooted traditions, values and beliefs which have a historical ingredient, organisational climate is the "here and now", the rules and regulations, methods of communication, and incentive programmes.

The most widely utilised national culture model was the five (5) dimensions of Hofstede[24, 29] and its instrument was called the Values Survey Module (VSM)[30]. The five cultural dimensions are 1) Power Distance (PD), 2) Uncertainty Avoidance (UA), 3) Individualism/Collectivism (I/C), 4) Femininity/Masculinity (F/M), and 5) The Confucian dynamic or long-term orientation (such as stability, thrift, respect for tradition and the future). The Hofstede's model and the accompanying VSM instrument were employed in many culture-related studies (e.g. [6, 7, 10, 18]).

On the other hand, there are many organisational culture models/frameworks advocated in the literature[31, 32]. For instance, Mintzberg's[33] five configurations of organisations are that of the adhocracy structure, professional structure, machine bureaucracy, divisionalised form and simple structure. Quinn and Rahrbaugh[34] developed the first Competing Values Model (i.e., CVM- I) to explain value orientation of organisational structure. Dennison and Spreitzer[35] extended the model incorporating four (4) cultures, namely, group culture, developmental culture, hierarchical culture, and rational culture. In this second Competing Values Model (i.e. CVM- II), flexibility-oriented organisations support decentralisation and differentiation, while control-oriented organisations support centralisation and integration[8]. Cameron and Quinn[36] further advanced the model as CVM-III with four (4) dimensions of people-oriented, outward-oriented, inward-oriented and task-oriented. Moreover, Trompenaars[37] advocated another corporate cultures model with four cultures, namely the incubator, the guided missile, the family and the Eiffel tower. The applications model/frameworks were found in many studies (e.g. [8, 11, 18]).

4. Cultural Impacts on QMP

Recent studies (e.g. [28, 38, 39]) found that organisational performance and organisational climate are linked. Sopow[28] contends that 80% of organisational climate is influenced by organisational culture. Quality culture is a subset of organisational culture. Since national culture affects organisational and quality culture, it would in turn have an impact on the QMP implementation. For instance, Kunnanatt[40] measured organisational climate before and after ISO 9000 implementation and concluded that the climate after implementation was significantly different.

Different countries and organisations are characterised by their specific dimensions of culture. Therefore, one universal approach to the implementation of QMP will not suffice and does not exist. Countries implement QMP in different ways depending on their national

cultures. Many researchers (e.g. [13, 25, 41, 42, 43]) advocated that the implementation plan of QMP must be customised to organisations of different culture in respective industry sectors, countries and regions.

4.1 Exploring National Culture Dimensions

This section explores what culture parameters are required for QMP with respect to the first three of cultural dimensions as advocated by Hofstede[24, 29]. These are:

4.1.1 Low vs. High Power Distance

A low PD is characterised by decentralisation[14]. In decentralised organisations, employees at different levels are empowered to make decisions. They are multi-skilled, trained and given the authority to diagnose problems and implement solutions. Therefore, problems are resolved at the point at which they occur. These organisations operate with more speed. Many studies (e.g. [8, 10, 44]) found that low PD is conducive to QMP implementation. Anwar and Jabnoun (2006) add that a low PD is required for customer satisfaction and continuous improvement, whilst a high PD is required for the quality control aspect. Besides, Yoo *et al.*[14] argue inconsistently that power distance does not have any significant effect on empowerment.

4.1.2 Low vs. High Uncertainty Avoidance

High UA is characterised by a great deal of formalisation in terms of policies and procedures. There is a lot of emphasis on rules and regulations, and decisions are based on statistical analyses. A culture of low UA is the opposite that there is less need for rules and regulations. Chin and Pun[44] argued that a low UA culture favors QMP implementation. Anwar and Jabnoun[21] also identified a requirement for a low UA culture for customer satisfaction and continuous improvement, whilst high UA is required for the quality control aspects.

4.1.3 Collectivism vs. Individualism

Individualism holds that the individual is the primary unit of reality and the ultimate standard of value, whereas collectivism holds that the group is the primary unit of reality and the ultimate standard of value. A collectivism culture facilitates teamwork that is required for the QMP implementation[10, 44]. Besides, Anwar and Jabnoun[21] add that collectivism also fosters customer satisfaction.

4.2 Exploring Organisational Culture Dimensions

Table 2 depicts a comparison among five organisational culture models as an entity. The hierarchical culture of CVM-II [35], the machine bureaucracy of Mintzberg's [33] and the Eiffel Tower concept of Trompenaars' [37] are characterised by hierarchical structures, centralisation, formalisation and control. The internal process model of CVM-I [34] and the inward-oriented structure of CVM-III [36] contain elements of formalisation. Besides, the rational goal model of CVM-I [34], the rational culture of CVM-II [35], the task-oriented structure of CVM-III [36] and the guided missile of Trompenaars' [37] maintain common properties in task-oriented, productivity and performance-oriented structures. Moreover, the characteristics of flexibility, creativity and innovation are common characteristics of the developmental culture of CVM-II [35], the task-oriented structure of CVM-III [36], the adhocracy configuration of Mintzberg's [33] and the Incubator culture of Trompenaars' [37].

An attempt is made to compare the characteristics of various cultural models with respect to quality dimensions (see Table 3). The following dimensions were deciphered as being conducive to QMP implementation in organisations [32]:

- 1) *Empowerment* – In an empowered culture, problems are solved at the point which they occur, since employees are multi skilled and capable of resolving issues. QMP emphasises the importance of employee involvement and empowerment that are attributable to efficient, high quality organisations [14, 45].
- 2) *Centralisation vs. De-centralisation* – Organisations with centralised functions are control oriented and lack empowerment. Empowerment is vital for QMP implementation. Therefore, a de-centralised structure is preferred for QMP [28].
- 3) *Hierarchy vs. no Hierarchy* – Hierarchy is not favoured by QMP as organisations with hierarchical structures normally have centralised functions which discourage empowerment [27]. Little or no hierarchy (flattened structures) is attributable to efficiency, high quality and quality improvement in organisations.
- 4) *Flexibility vs. Control* – Flexible cultures have de-centralised functions and hence support empowerment, therefore it is a favorable attribute of QMP implementation. In flexible cultures, there are fewer rules and formal procedures. In addition, power and decision making are shared throughout the organisation. Control structures have centralised functions and do not support empowerment of employees; management controls all decisions. There are formalised rules and procedures for guidance. Ambroz [45] contends that close supervision, as in control structures, impedes a change process.
- 5) *Formalisation vs. Little Formalisation* – QMP must be an integral part of the strategy

Table 2. Culture Models Compared as an Entity

	Simple Structure	Professional	Machine	Adhocracy	Divisionalised
<i>Mintzberg's [33] five (5) configurations of organisation</i>	Small hierarchical	No Hierarchy	Hierarchical	No hierarchy	highly-decentralised
	Minimal differentiation among units	Empowered employees	Activities standardised and regulated	Little formalisation	standardisation of outputs
	Centralised	Rigid Regulations		Empowered	
	Direct supervision			Teamwork	
	Simple coordination			Innovative	
	Loose division of labour			Flexible	
	Open Systems Model	Rational Goal Model	Internal Process Model	Human Relations Model	
Means flexibility and readiness	Means planning and goal setting and ends in productivity and goal setting	Means information communication	Means cohesion and morale		
Ends in growth and resource acquisition		Ends in stability and control	Ends in human resource development		
<i>Quinn and Rahrbough's [34] CVM-I</i>	Developmental Culture	Rational Culture	Hierarchical Culture	Group Culture	
	Flexibility	Task Force	Centralisation	Teamwork	
	Growth	Clarity	Control	Participation	
	Innovation	Efficiency	Stability	Empowerment	
	Creativity	Performance	Predictable Outcomes	Concern for Ideas	
	People Oriented	Task oriented	Inward oriented	Outward Oriented	
	Flexible	Production oriented	very structured and formal	Innovation	
<i>Cameron and Quinn's [36] CVM-III</i>	Egalitarian teams	Efficiency of operations	Stability	Competitive	
	people focus				
	Innovative				
	Incubator	Guided Missile	Eiffel Tower	Family	
	Egalitarian, Person oriented	Egalitarian, Task oriented	Hierarchy, Task oriented	Hierarchy, Person oriented	
	Creative Atmosphere	Paid by Performance			
		No hierarchy within groups			
<i>Trompenaars' [37] Four Corporate cultures</i>					

of the organisation for it to be effective. In this way, it becomes part of the day-to-day operations of the organisation, hence some formalisation is required to see this venture to its fruition[19]. The use of tools and techniques for continuous improvement efforts requires some degree of formalisation[46]. This is in contrast to Ambroz[45] and Scott

Table 3. Models of Culture Compared with Respect to Quality Dimensions

Dimensions	Culture Models	Implications
Empowerment	Group Culture of CVM-II[35]; Adhocracy and professional structure[33]; Low Power Distance [24, 29].	Empowerment is conducive to QMP.
Centralisation	Hierarchical culture of CVM-II[35]; Machine structure[33]; High power distance[24, 29].	Centralisation supports control and lack of empowerment. A decentralised structure is preferred.
De-centralisation	Divisionalised structure[33]; Low power distance [24, 29]	
Hierarchy	Eiffel Tower and family cultures[37], Hierarchical culture of CVM-II[35]; Machine and simple structure of Mintzberg[33]; High power distance [24, 29]	Hierarchy is not favoured as these structures have centralised functions which discourage empowerment.
No Hierarchy	Adhocracy and professional structure[33]; Low power distance[24, 29]	
Flexibility	Developmental culture of CVM-II[35]; People oriented[34], Adhocracy structure[33]; Low power distance[24, 29]	Flexible cultures have decentralised functions and hence support empowerment; Control structures are the opposite.
Control	Hierarchical culture of CVM-II[35]; High power distance of Hofstede[24, 29]	
High Degree of Formalisation	Machine and professional structure[33]; Inward oriented[34], High uncertainty avoidance[24, 29]	QMP is an integral part of the organisation's strategy. The use of tools and techniques also require some degree of formalisation for continuous improvement.
Little Formalisation	Adhocracy structure[33]; Low uncertainty avoidance [24, 29]	
Innovation	Incubator[37]; developmental culture of CVM-II [35]; People and outward oriented of CVM-III [36], Adhocracy structure[33]	Innovation leads to quality improvement. That is continuous and never ending. Stability does not support innovation.
Stability	Hierarchical culture of CVM-II[35]; Inward oriented[34]	
Collaboration (Teamwork)	Group culture of CVM-II[35]; Adhocracy structure [33]; the People oriented structure[34], Collectivism[24, 29]	Teamwork and communication involve staff involvement. To support teamwork, communication is required.
Communication	Internal Process Model of CVM-I[34]; Group Culture of CVM-II[35]	

Source: Based on Jaggernath-Furlonge and Pun[32].

et al. [27] who argue that high quality, empowered organisations place less emphasis on rules and bureaucracy.

- 6) *Innovation vs. Stability* – Quality improvement is a vital aspect of QMP. In innovative organisations there is a push for continuous improvement, therefore QMP favours innovation[19].
- 7) *Teamwork* – QMP focuses on the importance of cooperation instead of isolation for achieving effectiveness. Teamwork involves communication at various levels of staff and hence the involvement of everyone which is a vital requirement of QMP. The team-oriented factor has values of being innovative, creative and sharing information freely so that employees can make better decisions[44].
- 8) *Communication* – Proper communication is required to support teamwork. Communication can be verbal, written, electronic, meeting and the like. Sopow[28] deduced that negative organisational cultures would lead to poor communication.

Review of the literature shows that adhocracy (or outward) and group (or people) cultures of CVM-III would facilitate QMP implementations, and group and developmental cultures as defined by the CVM-II are best suited for organisational performance[8, 10]. The characteristics of group and developmental cultures are teamwork, participation, empowerment, concern for ideas, flexibility, growth, innovation and creativity. These characteristics are similar to the culture dimensions of low PD (i.e. empowerment), collectivism (i.e. teamwork) and low UA (i.e. creativity and innovation) as advocated by Chin and Pun[44] and Yoo *et al.* [14]. These dimensions imply a flexible-oriented and organic structure[21]. However, the success of QMP in the collectivist, high PD (hierarchy) cultures, like India and Japan, is inconsistent with such implication[13]. This can be explained by the national cultures of India and Japan being one of people-oriented leadership that facilitates a boss-subordinate and/or teacher-student type relationship that allows teamwork in practice.

5. Selected Quality Culture Models

Several quality culture models have been advocated in the literature for facilitating QMP implementation. Typical examples are Tata and Prasad's[47] Relationships Model, Anwar and Jabnoun's[25] Contingency Model, Idris and Zairi's[19] Sustainable Model, and Jaggernath-Furlonge and Pun's[32] Generic Quality Culture Model. They are elaborated separately as follows:

5.1 Tata and Prasad's Relationships Model

Tata and Prasad[47] proposed a Relationships Model that comprises of national culture, organisational culture/structure and TQM implementation. Figure 1 shows the skeleton of the model. The seven building blocks of the model are 1) leadership, 2) employee involvement, 3) responsibility for quality at source, 4) effective teamwork and coordination, 5) focus on the customer, 6) benchmarking, and 7) continuous improvement. It is advocated that low PD cultures have decentralised operations and empowerment. The dimensions of low PD and low UA facilitate a flexible-oriented and organic structure is conducive to QMP.

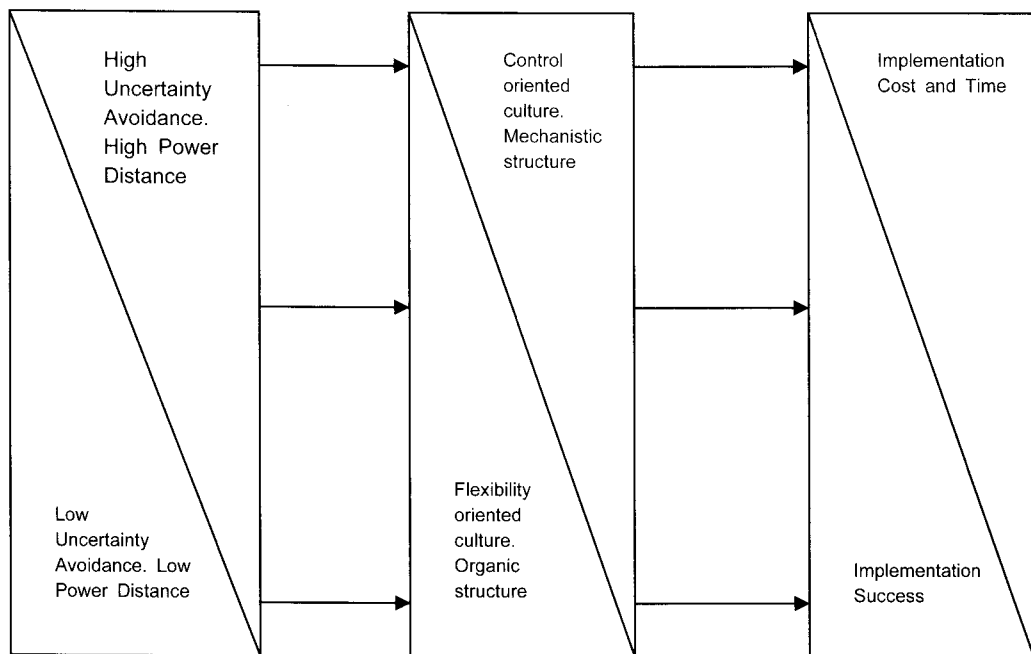


Figure 1. A Relationships Model of National Culture, Organisational Culture/Structure and TQM Implementation

Source: Extracted from Tata and Prasad[47].

5.2 Anwar and Jabnoun's Contingency Model

Anwar and Jabnoun[25] proposed a Contingency Model of TQM Implementation based on national culture (see Figure 2). Four (4) components (such as, total customer satisfaction, quality control, quality assurance and continuous improvement) are examined to determine the type of culture required for QMP. It advocates that 1) quality control (QC) requires a high PD, 2) quality assurance (QA) requires high formalisation and high UA, 3) continuous

improvement (CI) requires low PD and low UA, 4) total customer satisfaction (TCS) requires low PD, low UA and collectivism. Anwar and Jabnoun[25] contended that any organisations requiring both collectivism and low PD will go for joint ventures. Examples of such ventures are that of Fuji-Xerox Co Ltd, Yokogawa-Hewlett-Packard Ltd who both won the Deming Prize.

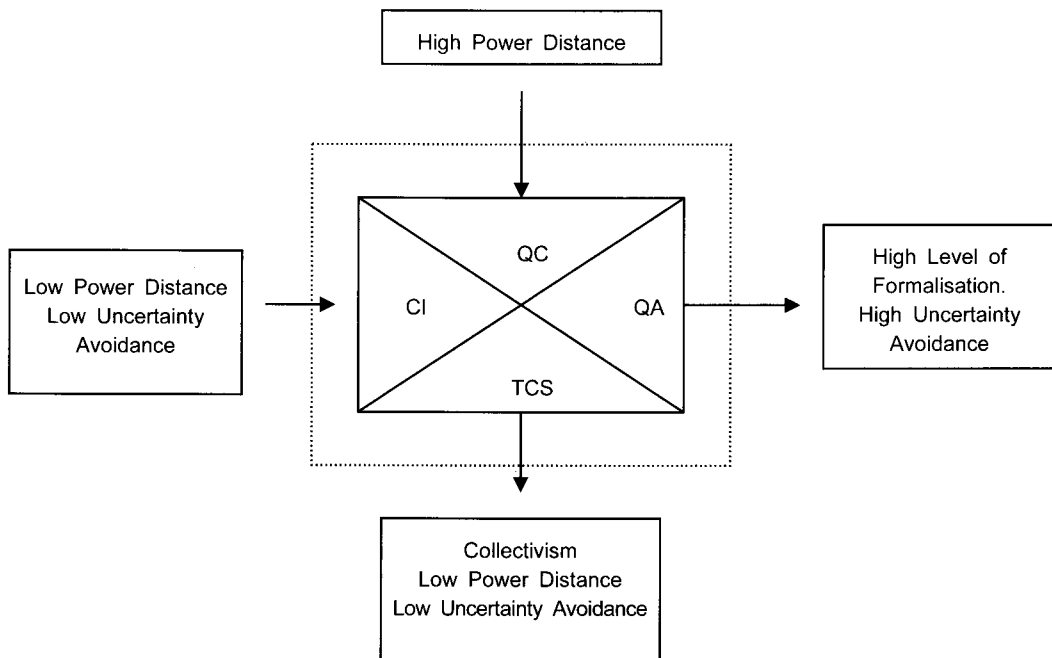


Figure 2. A Contingency Model of TQM Implementation Based on National Culture

Source: Extracted from Anwar and Jabnoun[25].

5.3 Idris and Zairi's Sustainable Model

Idris and Zairi[19] proposed a Model of Sustainable TQM and Performance that links the goals, drives, strategies and performance of TQM initiatives. As shown in Figure 3, the model takes into account four (4) transition periods of product, service, customer and market orientations. The model assumes that there are no quick fixes to quality performance, and TQM is an integrated and holistic approach. The critical success factors are 1) management commitment, 2) education and training, 3) feedback measurement, 4) total employee involvement, empowerment and teamwork, 5) technological factors, 6) customer satisfaction measurement, 7) benchmarking, 8) quality information and analysis, 9) strategic quality planning, and 10) supplier management. TQM sustainability is measured using balanced scorecard.

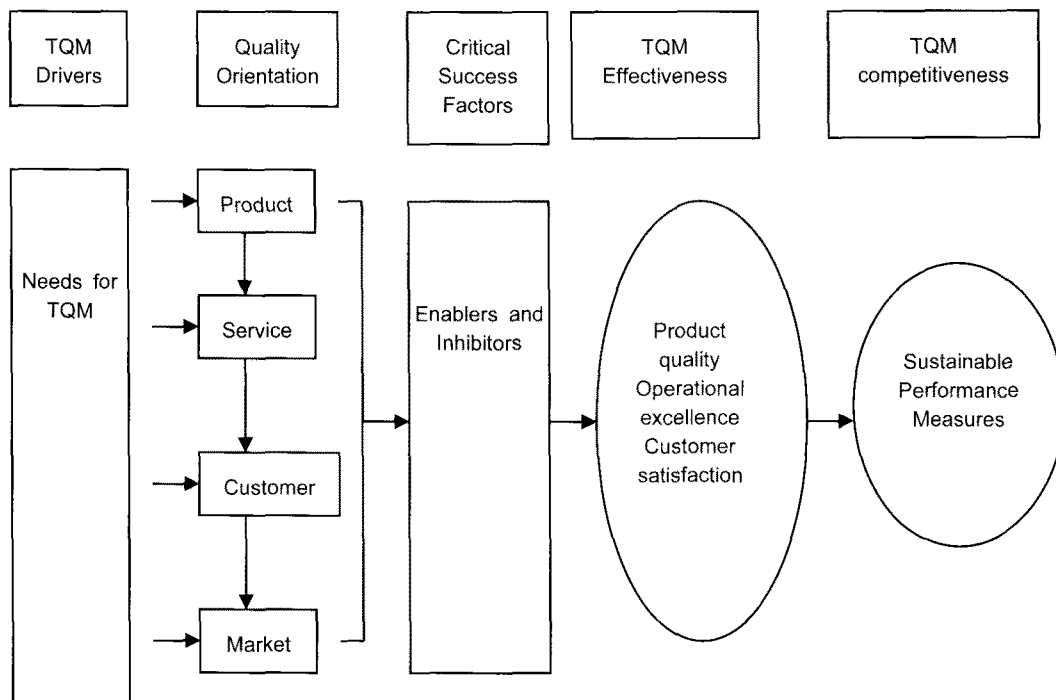


Figure 3. A Model of Sustainable TQM and Performance

Source: Abstracted from Idris and Zairi[19].

5.4 Jaggernath-Furlonge and Pun’s Generic Quality Culture Model

By incorporating the cultural and structural characteristics into QMP in the manufacturing context, Jaggernath-Furlonge and Pun[32] proposed a generic Quality Culture Model as derived in Figure 4. The model utilises the dimensions of culture as defined by Hofstede[24, 29] and includes culture change incorporating the methods advocated by Ryder[48] and Smith[49]. The model consists of four (4) stages namely, a cultural and structural diagnosis, gap analysis, culture transformation and a second cultural and structural diagnosis. Following the diagnosis of the organisational culture and structure, a gap analysis is conducted to determine whether the organisation satisfies the proposed dimensions of culture and structure for QMP implementation (i.e. a culture of low PD, low UA and collectivism). If the assessed organisation meets the proposed dimensions, no changes are required. The gap analysis identifies the dimensions of culture and organisational structure that need transformation. An implementation plan for QMP would then be formulated. The progress must be monitored at predefined intervals. Culture and structural diagnosis must be conducted to determine if the plan was effective in changing the culture and structure of the organisation[32].

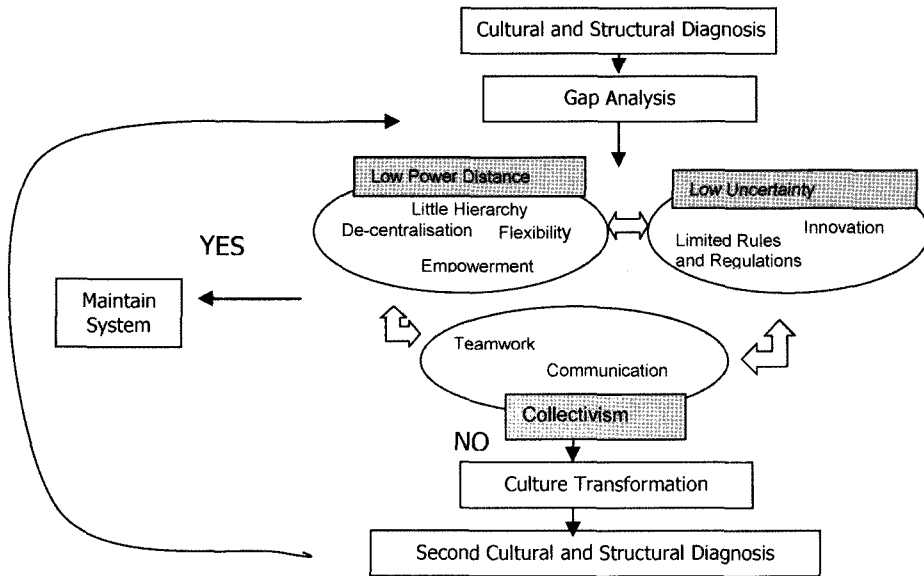


Figure 4. A Generic Quality Culture Model

Source: Abstracted from Jaggernath-Furlonge and Pun[32].

6. Discussion

By reviewing the four selected quality culture models advocated in the literature, this paper identifies and organises several main features for modeling a quality culture approach. These include 1) the seven building blocks of Tata and Prasad's[47] Relationships Model, 2) the four components (such as TCS, QC, QA and CI) of Anwar and Jabnoun's[25] Contingency Model, 3) the ten critical success factors of Idris and Zairi's[19] Sustainable Model, and the four stages of cultural and structural transformation as advocated in Jaggernath-Furlonge and Pun's[32] Generic Quality Culture Model. These features are transplanted into the dimensions of culture as defined by Hofstede[24, 29]. By doing so, the findings provide some references that help practitioners to understand the quality culture impacts on QMP and gain a perspective on how quality culture facilitates QMP in organisations.

Evidence from the literature reveals that culture has a significant effect on the success of QMP. Quality culture was found to be a subset of organisational culture and organisational culture cannot differ substantially from the national culture of a country. Implementation strategies for QMP have to be different for each cultural setting. Organisations with flat structures, flexible operations, little formalisation, innovativeness, de-centralised functions, em-

powered employees, teamwork and communication tend to be conducive to QMP implementation. Besides, a combination of low PD, low UA and Collectivism cultures is required. Low PD is characterised by little hierarchy, de-centralisation, flexibility and empowerment. Low UA has qualities of limited rules and regulations, policies and procedures and is very innovative. Collectivism has properties of teamwork and communication. Any culture exhibiting these parameters will be expected to be experiencing the benefits associated with quality management practices. Any culture not exhibiting these characteristics will have to undergo culture change to become low PD, Low UA and Collectivist culture.

Introducing QMP in a company requires a cultural change[10]. Successful implementation leads the organisation to change to be harmonic with quality-oriented values[9, 38]. Sopow [28] argue that changing the values of an organisational is not an easy challenge as culture has been long established into the fibre of the organisation. People are responsible for change; they are the makers and breakers of any quality programme[45]. There must be transformation at a personal level before any culture change can occur[50]. This means changing the mental set and behaviour of employees and learning new knowledge, skills and beliefs[45]. However, people have a tendency to resist change[42]. Scott *et al.*[27] argue that lack of ownership, complexity, lack of leadership, cultural diversity and dysfunctional consequences are typical resistances to culture change.

The challenge arises in how to change the culture of an organisation. The change process involves diagnosing the culture, planning and/or strategising, communication and training. Dolan and Garcia[51] argue that change can be managed by reliable leadership, deployment of sufficient resources, building the strengths and correcting the weaknesses, construction of new beliefs and values and realising the strategic vision of the organisation. An essential aspect of changing culture is thus identifying the values which are associated with low PD, low UA and collectivism cultures. It is crucial to have staff members been involved in the change process from the planning stages. In this way, they understand and appreciate the need for change and are actively involved in the planning and implementation stages. This reduces any fears and resistance to change they may have been experiencing. Communication and training where required are vital aspects of the culture change process.

7. Conclusion

QMP have recently flourished across the globe. Improving competitiveness was amongst the most prominent reasons for adopting QMP. Analysing the barriers to QMP revealed that

lack of management commitment, employees' poor attitude towards quality, and culture were amongst the most significant reasons for QMP failures. National culture affects organisational culture and quality culture that are found to have significant impacts on QMP. Since different countries and organisations are characterised by their specific dimensions of culture, one universal approach to the QMP implementation will not suffice. Therefore, the implementation strategies for QMP will be different for each cultural setting.

It was found that the culture dimensions of a low PD, low UA and collectivism are conducive to QMP. From an organisational perspective, this means little or no hierarchy (flat structures), decentralised functions, empowerment, flexibility, innovation, limited rules and regulations and teamwork are favorable for QMP. If organisations do not possess these parameters, culture change initiatives would follow. Culture change involves diagnosis, planning, communication and training. It was found that for planned culture change, values associated with low PD, low UA and collectivism would have to be nurtured. Further research is needed to determine the values that are associated with low PD, low UA and collectivism cultures in large versus small and medium-sized enterprises. There are potential research areas to incorporate the main features identified from existing quality culture models and develop a practical quality culture approach for real applications in industry. Comparative evaluations and case studies are also suggested to examine the critical processes and determinants of QMP processes across different industry sectors.

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