



QUALITY MANAGEMENT PRACTICES AND ORGANIZATION PERFORMANCE: A CRITICAL REVIEW OF LITERATURE

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Abstract:

With an increasingly competitive and tumultuous business environment, organizations need to continuously reassess the suitability of their strategies in meeting the ever-changing customer requirements. This study sought to carry out a literature review on quality management practices, organization culture and organization performance with an aim of establishing the existing relationship among them. In so doing, the study was guided by the resource-based view and contingency theories. From the study, it was established that a consensus exists among extant literature that both quality management practices (QMPs) organization performance. When implemented, QMPs are expected to improve the quality of output by improving the efficiency of processes, reducing errors, enhancing timely operations and response. Based on these findings, it is concluded that implementing QMPs on their own can lead to an increase in different measures of organization performance. However, it also seems that OC moderates the relationship between QMPs and firm performance.

Keywords: quality management practices, organization performance, resource-based view

1. Introduction

Globally, the increase in competition has forced organizations to continuously examine the innovative ways of improving their offerings to enhance the satisfaction of customers and still be competitive. Quality improvement and ultimately customer satisfaction are the main reasons for implementing quality management practices in organizations (Waduu & Rugami, 2019). Quality management practices (QMPs) are routine activities that are vital to an organization and are expected to improve the quality of products and services (Wambui & Bett, 2019). Other benefits of implementing QMPs noted in extant literature include reduced costs of operations, increase in operation efficiency,

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productivity, financial performance and organization's ability to continuously learn and improve operations (Kheni & Ackon, 2015; Nwafor, 2020; Salah, 2018; Ukab, 2021).

QMPs influence the performance of a firm directly or indirectly through its soft and hard components. Soft QMPs relate to behavioral aspects of quality management focusing on culture and practices of organization's members, while hard QMPs entail the usage of systematic procedures and methods in control and improvement of processes (Abdullahi & Bett, 2018; Murenga & Njuguna, 2020; Othman et al., 2020). The effects of QMPs on organization performance have been studied widely by many researchers. For instance, Baird, Hu and Reeve (2011) concluded that supplier quality management, process management, quality data and reports, led to the achievement of inventory management and quality performance among Australian firms. Whereas, top management support, workforce management, customer focus and supplier involvements are examples of the soft QMPs that influence performance of an organization (Ahmed & Siddiqui, 2020).

Despite the contribution of QMPs to firms' performance, some researchers caution that the usage on their own cannot guarantee superior performance (Abdullahi & Bett, 2018; Elhawi et al., 2021). This is because particular practices are context specific and can only influence performance under certain conditions (Othman et al., 2020).

2. Quality Management Practices

Quality management (QM) is a management philosophy that seeks to achieve and sustain high quality output by enhancing efficiency and effectiveness of processes (Salimian et al., 2021; Waduu & Rugami, 2019). Ultimately, QM should aid an organization in meeting and exceeding customer expectations as well as gaining competitive advantage over rivals (Agyei et al., 2021). The conceptualization of QM is through principles, practices and techniques (Salah, 2018). Each principle of quality management is embodied through practices, which are a set of activities within an organization. A practice is a way of doing something habitually or routinely (Agyei et al., 2021; Ukab, 2021). Quality management practices (QMPs) refer to the activities undertaken routinely by a firm and are vital for successful quality performance and customer satisfaction (Murenga & Njuguna, 2020; Sharma & Joshi, 2020).

A tendency exists among the quality management literature to classify the broad spectrum of QMPs as soft and hard dimensions. The softer QMPs refer to the behavioral attributes of quality management that focus on cultural practices and actions of members in an organization (Mukami & Kiiru, 2019). Examples of soft elements are customer focus, teamwork, leadership, top management commitment, supplier relationships and human resource development. Hard QMPs on the other hand, relate to the usage of systems and procedure oriented methods of QM to control and improve efficiency of processes (Ali, Khairul, 2020). The hard factors comprise process management, product design process, benchmarking, quality reports, improvement for quality systems, statistical processes and control. Different terms are used by researchers to refer to QMPs and include,

“factors,” “implementation constructs,” “dimensions,” “methodologies,” “elements” and “activities” (Kihugwa & Machoka, 2020; Meta, 2019; Salimian et al., 2021).

A plethora of existing research shows that for an organization to realize the effectiveness of a quality initiative, synergistic implementation of both soft and hard QMPs must suffice (Ali, Khairul, 2020; Othman et al., 2020; Zimon, 2019). When implemented, QMPs lead to increase in different measures of organization performance. Soft QMPs such as leadership, top management involvement, customer focus and human resource development create a conducive environment for the successful implementation of hard QMPs (Mukami & Kiiru, 2019; Rehmani et al., 2020; Salah, 2018). Similarly, implementation of hard factors leads to increase in quality and financial performance (Wambui & Bett, 2019) as well as operational performance (Baird et al., 2011) and productivity improvement (Murenga & Njuguna, 2020; Sharma & Joshi, 2020).

Despite the positive correlation between QMPs and firm’s performance, some researchers warn that the two dimensions of QMPs enhance organization performance in diverse ways. (Ali, Khairul, 2020) concluded that only the soft elements affect firm performance while, (Agyei et al., 2021) posited that the hard factors increased organization performance without the support of the soft elements. Other researchers argue that the soft elements affect firm’s performance in a more superior way than the hard elements (Abdullahi & Bett, 2018; Murenga & Njuguna, 2020; Sharma & Joshi, 2020). Nevertheless, a consensus exists among most QM literature that all QMPs when implemented, should help an organization in attaining effectiveness and improvement in quality performance.

3. Theoretical Literature: Resource Based View

Resource based view (RBV) takes an internal view of organization by analyzing the internal environment in terms of resource types and capabilities that a firm possesses. Resources are inputs to the activities carried out by a firm while capability is how a firm utilizes the resources to generate superior performance (Mukami & Kiiru, 2019). RBV views a firm as having bundle of resources broadly classifiable as tangible and non-tangible (Nwafor, 2020). Examples of tangible resources are financial, physical, technological and organizational resources. While intangible resources include human, innovation and reputational resources.

The theory is grounded on the basis that organizational resources exhibit unique characteristics that are rare, valuable, inimitable, non-substitutable and heterogeneous (Rehmani et al., 2020; Salah, 2018; Shengeza, 2017). These resources are expected to give an organization sustainable competitive advantage over rivals in the market (Othman et al., 2020; Zimon, 2019). The uniqueness of a firm lies in its ability to combine the resources so as to develop potential strategies that will eventually lead to competitive advantage. Quality management practices (QMPs) are categorized as forming part of intangible resources of a firm that aid in attainment of organization (Kihugwa & Machoka, 2020; Salimian et al., 2021; Waduu & Rugami, 2019).

QMPs on the other hand, are routine activities undertaken by a firm to enhance the quality of output. These activities amount to unique business processes that are used in realizing the overall performance of firms (Elhawi et al., 2021). The soft components of quality management practices help organizations in developing unique competitiveness that is difficult to imitate (Meta, 2019).

The main assumption of RBV is that resources and capabilities of a firm are considered static despite the turbulence of the business environment (Mukami & Kiiru, 2019; Rehmani et al., 2020; Salah, 2018). In addition, RBV assumes that the desired goal of any management effort is a sustainable competitive advantage using internal resources (Salah, 2018). Whereas focusing on the internal environment of a firm is paramount to achieving goals, ignoring the equally important dynamic external environment can be detrimental to business operations. Moreover, distinguishing among resources that lead to greater performance and sustainability is a challenge faced by most organizations (Ahmed & Siddiqui, 2020; Meta, 2019; *Engaging Customers as Stakeholders to Enhance Quality Management in Public Institutions-a Case of Kenya Power Company Use of Twitter*, 2020).

4. Empirical Findings

4.1 Quality Management Practices and Organizational Performance

The ultimate reason for implementing quality management practices (QMPs) in an organization is to improve the quality of output so as to enhance customer satisfaction. Extant literatures have shown that the implementation of soft and hard QMPs lead to increase in organization performance. In a study to establish the effect of QMPs on service innovation and organization performance, Khan and Naeem (2016) concluded that both soft and hard QMPs improve the service innovation and financial performance. The study entailed a cross-sectional survey of 318 employees in a telecommunication company in Pakistan while data was analyzed using structural equation model (SEM).

Another study by Su et al. (2008) revealed that implementing soft and hard QMPs lead directly to increase in both quality and R&D performance but indirectly to sales growth and market share. The researchers had sought to find out the impacts of QMPs on quality results, R&D process and firm performance. They collected data from 196 Chinese manufacturing and service firms and analyzed it using multi group structural equation model. The impact of soft and hard QMPs on organization performance cannot however be generalized because each dimension affects performance differently. Some researchers argue that the soft QMPs are superior and impact more on organization performance than the hard factors (Khan & Naeem, 2016; Fotopoulos & Psomas, 2009). An argument put forth to support this claim is that without the support of the soft factors such as leadership, unified vision, and committed management, the hard elements alone cannot guarantee organization results.

The superiority of soft QMPs is further supported by the research conducted by Naor et al. (2008) on the relationships among organizational culture, infrastructure, core

QMPs and manufacturing performance. Data was collected from six countries comprising 189 manufacturing plants and analyzed through SEM. The researchers concluded that only the soft QMPs affected manufacturing performance while the hard ones comprising of quality information, process control and product design were not associated with performance. Researches done by Kaynak (2003) and Dow et al. (1999) emphasize that the soft QMPs comprising of leadership and top management support are paramount in attainment of high levels of quality success.

Contrary to the findings that only soft QMPs lead to performance, hard QMPs have also been shown to increase performance of organizations. Zu (2009) undertook a study to determine the effects of QMPs on quality performance among manufacturing plants in US. Data was collected from 226 manufacturing plants in US and analyzed using SEM. From the findings, the researcher concluded that quality information, process management and product/service design increased the quality performance of the manufacturing firms. Parvadavardini et al. (2016), revealed that all the four hard elements used in the study comprising of strategic quality planning, supplier quality, process monitoring and control led to increase in quality and financial performance. The research was conducted on 152 Indian manufacturing firms to explore the relationship among QMPs, quality and financial performance.

Furthermore, a study conducted by Baird et al. (2011) showed that the hard QMPs used in the study led directly to increase in inventory management performance but indirectly to quality performance. The study entailed surveying 364 business units in Australia to ascertain the association between TQM practices and operational outcome. Inconsistencies abound existing literature on the how each dimension of QMPs affect organization performance. Naor et al. (2008) found out that only soft QMPs related positively with manufacturing performance whereas the hard elements were not. On the contrary, Zu (2009) concluded that hard factors led to increase in quality performance directly without the support of the soft elements.

Another point of divergence notable from extant literature is on the association between the hard QMPs and measures of performance. According to Parvadavardini et al. (2016), the hard components comprising of strategic quality planning, supplier quality, process monitoring and control directly increased the quality performance of the manufacturing firms in India. Whereas according to Baird et al. (2011), the same hard components showed an indirect relationship with quality performance of Australian manufacturing firms. How can the same dimensions of QMPs show contradictory relationship with the same measure of performance? Is it possible that the effect of QMPs on performance is affected by specific organizational factors? This indeed is not clear among existing quality management literature.

Furthermore, part of existing research show that QMPs have a positive influence on the financial performance of a firm (Parvadavardini et al., 2016; Khan & Naeem, 2016). The other part however, holds that an indirect relationship can only exist between QMPs and financial measures of performance (Baird et al., 2011; Su et al., 2008). The proponents of this view argue that implementing QMPs will only lead to the attainment of quality

improvement and so for an organization to realize other potential benefits such as financial gains, other factors must come into play (Su et al. 2008; Prajogo & McDermott, 2005; Mak, 1999; Wu et al., 2011). Nevertheless, from the foregoing discussion despite the discrepancies, it is quite evident that all QMPs form an essential part of quality management that contribute to quality improvement agenda and increase in organization performance.

4.2 Quality Management Practices and Organization Culture

A striking point on the relationship between quality management practices QMPs and organizational culture (OC) is determining which variable is antecedent of the other. On one hand, some scholars argue that quality management through its principles and practices can change the prevailing OC, while on the other hand some hold the view that OC gives support and provides conducive environment for the implementation of QMPs. Prajogo and McDermott (2005) carried out a study on organization cultures that support QMPs among organizations in Australia. The researchers collected data from 194 organizations and analyzed it using SEM. The findings revealed that group culture was the most domineering culture type that fostered the support for teamwork activities such as employee participation and training. According to these authors, organization culture constraints the implementation of QMPs.

Naor et al. (2008) concluded that the culture dimensions of group, developmental and low hierarchy levels played a key role in supporting the implementation of soft QMPs. Specifically, softer elements of QM such as customer focus and supplier involvement require the support of cultural attributes such as employee collaboration, openness and communication (Naor et al., 2008). The success of hard QMPs has also been variously linked to the prevailing culture of an organization. For instance, sustaining high levels of hierarchical culture reduces the chances of committing errors in an organization thereby leading to increase in the quality of output (Rad, 2006). Similarly, maintaining a close relationship with suppliers aids an organization in acquiring new information as well as minimizing errors for the inbound materials (Navez & Erez, 2004).

Teamwork enhances employees' ability to learn and continuously improve organizational processes thereby supporting process management implementation (Anderson et al., 1995; Baird et al., 2011). Furthermore, most QMPs implementation failures reported in literature are linked to cultural factors (Baird et al., 2011; Prajogo & McDermott, 2005; Mak, 1999) and a tendency of organization members to resist change (Wu et al., 2011). However, proponents of quality management (QM) as a vehicle for cultural change are identifiable from literature. QMPs such as supplier management, quality information and customer focus provide the necessary framework for cultural change in an organization (Rad, 2006; Entekin & Pearson, 1996).

A study by Gore (1999) disclosed that apart from providing support for a change in culture, QM practices equipped an organization to continuously learn and improve its processes. The implication of this is that the quality management principle of continuous improvement may provide a compelling reason for an organization to continuously seek

and practice quality improvement. Furthermore, enhancement of teamwork spirit in an organization ensures full involvement of organization members and facilitates the implementation of process management thereby creating a culture of continuous improvement of processes and output (Anderson et al., 1994). In addition, the quality aspect of doing it right the first time requires inculcation by all members and this may consequently affect the overall culture orientation of an organization (Rad, 2006).

4.3 Quality Management Practices, Organizational Culture and Organization Performance

Dynamic changes in the competitive business environment have led to increase in attention towards organization resources and how they can be used to increase performance. Quality management practices (QMPs) and organization culture (OC) are categorized as intangible resources of a firm that aid in attainment of organization goals (Kelly, 2016; Barney, 1991; Hall, 1992). Majority of the existing studies have shown that QMPs play a key role in the attainment of high levels of performance (Khan & Naeem, 2016; Parvadavardini et al., 2016; Su et al., 2008). From these studies, both soft and hard QMPs lead to increase in different measures of organizational performance.

Existing culture of an organization has variously been shown as directly influencing the outcomes of an operation by providing the necessary platform for various strategies to be implemented (Prajogo & McDermott, 2005; Baird et al., 2011; Prajogo & McDermott, 2005; Wu et al., 2011). Most studies show that separately, both OC and QMPs influence the organization performance. For example, Naor et al. (2008) revealed that OC and soft QMPs have direct impacts on manufacturing performance. Whereas, Prajogo and McDermott (2005) were instrumental in positing that although group culture was the key pillar in implementation of QMPs, development culture was critical in enhancing organization performance.

Still among the extant literature, contradictory information can be discerned particularly on the relationship among OC, QMPs and firm performance. For instance, Naor et al. (2008) revealed that only the soft QMPs were related to OC and organization performance but the hard practices were not. On the contrary, Baird et al. (2011) divulged that OC impacted indirectly on firm performance through the hard QMPs. To this end, two schools of thought emerge. One school sets out that organizational culture sets precedence for quality management practices in affecting performance (Naor et al., 2008; Prajogo & McDermott, 2005; Baird et al., 2011). The basis for this premise is that QMPs are a means by which the OC is played out in improving performance. Abraham, Crawford and Fisher (1999) noted that a unified organization culture that focused on teamwork and visionary leadership supported the implementation of QMPs.

The other school of thought argues that quality management through its principles and practices can change the prevailing culture of an organization. An empirical study conducted by Gore (1999) revealed that the QM's principle of continuous improvement provides sufficient support and drive for an organization to learn and practice quality improvement. The soft QMPs comprising of leadership and top management support are

key pillars in supporting a quality culture (Roldan, Rodriguez & Leal, 2012; Abraham et al., 1999). When leaders emphasize on the adherence of particular cultural values, there is a possibility that members in such an organization will try to emulate and replicate the same values in their daily operations. Thus, providing a good breeding ground for learning and spreading of the same cultural values in the entire organization. It is therefore evident from the preceding arguments that both QMPs and OC affect performance but how these variables interact is still a cause of disagreement.

Conflict of Interest Statement

The authors declare no conflicts of interests.

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