

Total quality management and Organizational Performance: A proposed model on the moderating Effect of Technological Turbulence.

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Abstract: The study presents a conceptual framework showing the moderating role of technological turbulence on the relationship between total quality management and firms performance. Literature was reviewed before arriving at the proposed conceptual framework. From the model, it is proposed that the relationship between total quality management and organizational performance will be stronger when technological turbulence is supportive and taken in to consideration by Nigerian banking industry. Organizations that leverages on opportunities that evolves around its external environment in terms of change in technology has an edge in attaining competitive edge and improving performance of their organizations more efficiently and effectively than competitors do.

Key words: total quality management, performance, technological turbulence, competitive edge.

I. Introduction

The banking industry is an important pillar for any nation. It is a step to the economic development of any nation due to the financial services which they provide to the people. The efficient and effective functioning of the commercial bank indicates the financial stability of the country(Kolapo, Ayeni et al. 2012). The rate at which the banking industry provides loans to the public to aid industrialization and small scale business, aids in improving the growth and economy of the nation. There are many antecedents which have been considered which aids the performance of the banking industry such as organizational culture, market orientation, to mention a few. The present study intends to integrate total quality management and performance of Nigerian banks with moderating effect of technological turbulence.

A review of related literature indicates that firms that employs total quality management can improve organizational performance. For this purpose, it will be advantageous in looking at practices of total quality management in relation to improving performance of Nigerian banks.

A critical literature review shows that the relationship between total quality management and organizational performance has been studied. Some researchers revealed a positive relationship between total quality management and organizational performance(Claver and Tarí 2008, Vanichchinchai and Igel 2011, Morgan 2012, Morgan, Katsikeas et al. 2012, Jiménez-Jiménez, Martínez-Costa et al. 2015, Zeng, Phan et al. 2015). However, some studies shows non-significant relationship between TQM(Kober, Subraamanniam et al. 2012).Due to the inconsistent findings on the relationship between TQM and organizational performance necessitates the introduction of a moderating variable in other to add strength to the relationship that exists between TQM and firm's performance.

Similarly, some scholars have examined the moderating role of technological turbulence on organizational performance which is a dimension of environmental dynamism(Chavez, Yu et al. 2015, Najafi-Tavani, Sharifi et al. 2016, Zulu-Chisanga, Boso et al. 2016). The present study intends to use only technological turbulence. The banking sector is full of different changes in technology and any bank that is left out which does not move with adopting technologies is likely to fail. Using technological turbulence has a moderating variable is necessary due to the fact that there is changes in the

way and mode of doing business due to the fact that technological changes takes place rapidly over a short time. Past studies tend to concentrate on competitive intensity and market turbulence while abandoning the role of technological turbulence (Trkman and McCormack 2009). The present study makes use of technological turbulence as a moderating variable in order to strengthen the relationship that exists between total quality management and organizational performance. Moderators help in tightening the bond and clarifying misleading relationship on the relationship between TQM and firm's performance.

The present study also integrates the use of both contingency theory and resource base theory in explaining the role of technological turbulence on the relationship between TQM and firm's performance in Nigerian banking sector. Based on contingency theory, a firm can perform optimally if their structure is targeted to face contingencies imposed by size, technology and environment in which the firm operates (Donaldson 1995, Donaldson and Preston 1995, Otley 2016).

The basic assumption of contingency theory is that firms align their capabilities and resources with both external and internal environment (Homburg, Hoyer et al. 2002, Holm, Kumar et al. 2012). The theory premise is that for a firm to improve its performance and attain profit in terms of improved financial performance, it must be take cognizance of what is happening in its external environment (Abidemi, Halim et al. 2017). In other words, firms should not only place emphasis on its internal resources, acquiring resources, or developing resources but should also consider and focus on how to enhance its capabilities so as to cope with what happens externally (external environment).

Organizations that are conversant with its environment (Contingent firms) can achieve competitive edge by studying what happens in its external environment and implement specific strategies that is appropriate in tackling the contingencies in the external environment (Johannesson and Palona 2010). That is to say firms have to keep up with its surroundings by interacting with its environment. Hence, contingency theory states how firms act in order to survive. Organizations are referred to as contingency based when it focuses on business environment in situations such as choice of innovation in dealing with engineering issues (Puranam, Alexy et al. 2014).

The resource base theory is of the premise that for a firm to achieve competitive edge in needs to recruit resources (Penrose). Resources are assets, capabilities and information which is owned and controlled by the firm in tackling and implementing strategy (Barney 1991).

The aim of the paper is to present a model that shows the moderating effect of technological turbulence on the relationship between TQM and organizational performance of Nigerian banks. The proposed model will show the moderating role of technological turbulence on the relationship between total quality management (TQM) and organizational performance which will be developed and explained. The remaining part of the paper reviews literature on TQM, technological turbulence and organizational performance so as to formulate propositions showing the relationship between the variables under discussion. Finally, the methodology to be adopted, conclusion and implication of the study will be discussed.

II. Literature review

Total quality management

Organizations that place emphasis on quality stand a competitive edge because quality is a significant driver of success in today's competitive environment (Demirbag, Tatoglu et al. 2006). Organizations that attain favorable market position need to place emphasis on effective strategies such as TQM. Total quality management refers to a management approach that places emphasis on continuous improvement in all business operations or organizational functions in producing or offering services that satisfies the needs and expectations of customers (Demirbag, Tatoglu et al. 2006). In other words, total quality management aims at improving organizational performance and also offers to improve quality in catering for customer's needs (Kaur, Singh et al. 2012). In the past, TQM was mainly used in manufacturing industries but lately it is being applied to the service sectors since it has been recognized as a primary driver in achieving competitive edge and improving performance (Subrahmanya Bhat and Rajashekhar 2009, Talib, Rahman et al. 2011). Furthermore, TQM can assist managers in managing the affairs of their organization and improve performance (Konecny and Thun 2011).

Similarly, a review of literature revealed that the relationship between TQM and performance has been studied and examined. However, most of these studies were conducted in developed countries, the result may vary from developing nations such as Ghana, South African and Nigeria due to different context and different cultures. In the same vein, most of the results on TQM and organizational performance varies but majority of the studies shows a significant

relationship between TQM and firms performance (Yeung and Chan 1998, Hendricks and Singhal 2001, Arumugam, Ooi et al. 2008, Miyagawa and Yoshida 2010, Corredor and Goñi 2011, Gunday, Ulusoy et al. 2011, Talib, Rahman et al. 2011, Al-Swidi and Mahmood 2012).

However, some studies also revealed insignificant relationship between TQM and organizational performance such as (Hendricks and Singhal 1996, Shin, Kalinowski et al. 1998, Prajogo and Sohal 2004, Kannan and Tan 2005, Kober, Subraamanniam et al. 2012). Due to the fact that studies on TQM and organizational performance are inconsistent, it is important to carry out another study in examining the relationship between TQM and organizational performance relationship in the context of banking sector in Nigeria which lacks empirical evidence (Meftah Abusa and Gibson 2013).

Thus, it is proposed that TQM as a positive relationship on performance of Nigeria banking industry.

III. Technological turbulence as a moderator

For a better understanding of the varying situation in which total quality management as an effect on financial performance requires contingency factor that emphasizes the various level of technological turbulence. External environment usually has a positive or negative effect on independent variables there by altering its impact on financial performance in the context of contingency. Prior studies also shows that external environment acts as a moderating variable (Zhang and Duan 2010, Wang and Fang 2012, Navarro-García, Arenas-Gaitán et al. 2014).

Technological turbulence tends to create an avenue in which organization seeks and collects information from customers on how to they can served better through the use of social media (Risselada, Verhoef et al. 2014). Information technology provides an avenue for organization to develop capabilities in various fields such as product development, marketing strategies, innovation and mergers and acquisitions (Schilke 2014). An organization that focus on new technologies can provide important services to customers and offers new innovation due to the fact that previous technologies becomes obsolete (Betta, Jones et al. 2010). The use of technological turbulence has a moderating variable gives credence to the importance of information technology to organizations (Cao and Zhang 2011, Abidemi, Halim et al. 2017). Technological turbulence leads to achieving success when other organizational factors such as total quality management are combined together. Organizations that leverages on information technology stand a better chance of improving performance and increasing market share (Lin and Wu 2014).

Furthermore, total quality management inclined firms seek new technologies so has to improve the quality of service provided to their customers. Technological turbulence creates an opportunity for banks to adapt to market and technological changes, organizations that fails to adapt to changes or respond adequately to new opportunities may lead to its failure or demise of such firms (Kumar, Jones et al. 2011).

Hence, technological turbulence moderates the relationship between TQM and performance of Nigerian banking industry.

IV. Total quality management, technological turbulence and organizational performance

Business firms are set up for the sole purpose of making profit. Performance can be measured objectively using financial reports or subjectively using manager's perception (Abidemi, Halim et al. 2017). Subjective measures of organizational performance reflect measures that are directed at firm's key informants such as managers, chief executive officers, directors and marketing managers (Wall, Michie et al. 2004). It has been argued that objective measurement of performance is a lag measure because it is based on past events and only measures a single indicator unlike subjective measures which is based on the present event and can measure various indicators (Dess and Robinson 1984, Wall, Michie et al. 2004). Organizations such as the banking sector can improve its performance and attain competitive edge by improving the quality of its services which is an internal resource of the firm and align its resources properly with that of the technological environment (Abidemi, Halim et al. 2017).

Previous empirical evidence has demonstrated and acknowledged that TQM is one of the most important strategies which organizations can use in retaining and gaining customers and improve performance of such organizations measured in terms of market and customer performance.

In the same vein, review of literature shows that technological turbulence can moderate performance outcomes in varying conditions (Cruz-González, López-Sáez et al. 2015, Abidemi, Halim et al. 2017). Technological turbulence is an important dimension of external environment which comprises of market turbulence and competitive intensity which is used frequently in research unlike technological turbulence which is rarely used (L. Sanders Jones and Linderman 2014,

Tsai and Hsu 2014, Bai and Chang 2015). Organizations that adapts the latest technology attains competitive edge over competitors and also improve organizational performance (Tsai and Yang 2014). A review of related literature showed that technological turbulence helps marketing firms in attaining competitive edge by offering superior products and improved quality of services (Calantone, Garcia et al. 2003, Fernández, Del Rio et al. 2010).

Similarly, review of literature shows that technological turbulence has both positive and negative impact on organizational performance activities (Kohli and Jaworski 1990, Jaworski and Kohli 1993, Chavez, Yu et al. 2015, Cruz-González, López-Sáez et al. 2015). The rapid changes in technological environment creates new offerings in the market place which makes previous technology to be obsolete (Tsai and Yang 2014). Organization that implements total quality management in their organizations, implements and monitor it and leverages on latest technologies so has to better satisfy prospective customers leads to superior organizational performance and improved quality of services by harnessing latest technologies. It is important to note that organization planning and decision making is contingent on the external environment (Wiklund and Shepherd 2005, Mohamad, Ramayah et al. 2011). A firm's Internal resources and capabilities are what organization uses in tackling opportunities that exists in the external environment.

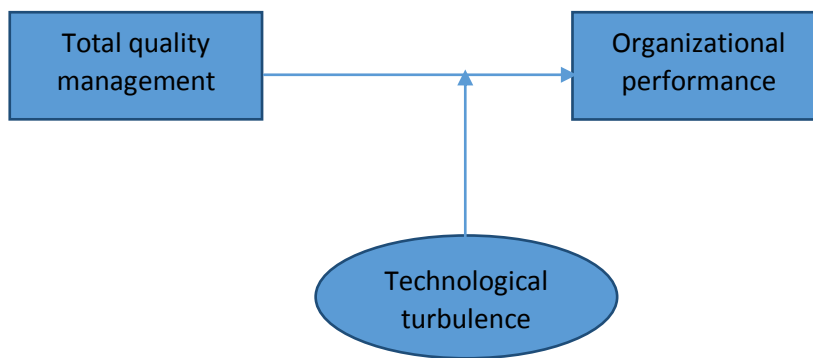


Figure 2.1 conceptual model

V. Proposed conceptual model

As mentioned earlier, the purpose of the article is to present a model showing the relationship between TQM, technological turbulence and firms performance. After a critical review of the literature, brings about the proposed model. The model shows the moderating effect of technological turbulence on the relationship between total quality management and organizational performance. The thick line shows direct relationship while the thin line shows the moderating variable. The proposed model depicts that the relationship between TQM and organizational performance is contingent on the moderating variable which is technological turbulence. In the same vein, the proposed model shows that technological turbulence as an influence on total quality management and organizational performance.

VI. Conclusion

The study presents a model that shows the moderating role of technological turbulence on the relationship between total quality management and organizational performance. A review of related literatures reveals that total quality management leads to improved organizational performance. Similarly, technological turbulence is an antecedent to organizational performance. The proposed model shows that banking industry can seek opportunities in the external environment by adapting to change in the technological environment so as to provide improved services to its clients more efficiently and effectively than those of competitors(Bello and Alshaubi 2017).

Organizations that employs the usage of latest technologies can achieve superior organizational performance, retains and attracts customers than organizations which fails to adopt new technologies and provide superior services quality to customers. Nigeria banking industry needs to focus on improving its total quality management efficiently, effectively and make use of available resources efficiently so as to attain competitive advantage and also improve performance of the sector. Organizations have to align its resources and capabilities with those of the external environment in terms of change in the way of doing things or change in technology so as to gain competitive edge and offer superior services to customers. It is important to harness technology with organizational capabilities. The present study aims to fill the gap

in the literature by studying technological turbulence as a moderating variable on the relationship between total quality management organizational performance. The implication of the conceptual model is that managers have to emphasize on quality of services in other to gain competitive edge and achieve improved organizational performance. It also implies that for organizations to achieve success in the market place, they have to leverage on opportunities which is presented in the external environment.

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