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Total Quality Management Practices, Organisational Culture and Firm Performance; Service or Product Innovation

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Abstract

The study determines how total quality management practices and good organizational culture will enhance operational performance in the banking sector in Ghana. The study is explanatory research design in nature. Taking the time frame of the study and the need to bring out a finding reasonable for generalization, the researcher selected a sample of 153. The findings of the study establish that total quality management has a positive and significant effect on service product innovation. Organizational culture has a positive and significant effect on service product innovation. Service product innovation has a positive and significant effect on firm performance. Organizational culture has a positive but insignificant effect on firm performance. Total quality management has a positive and significant effect on firm performance. The study further revealed that service product innovation positively and significantly mediates the relationship between total quality management and firm performance. The study finally assessed the mediating effect of service product innovation on the relationship between organizational culture and firm performance and the findings of the study indicate that service product innovation positively and significantly mediates the relationship between organizational culture and firm performance. How Total Quality Management practices and good organizational culture influence operational performance in the banking sector in Ghana.

Keywords: *Total Quality Management Practices, Organisational Culture, Firm Performance; Service/ Product Innovation*

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1.0 INTRODUCTION

Every institution wants to remain competitive and making returns for its shareholders on a going-concern basis. To achieve this, the products and services of the organization must be apt and consistently meet the satisfaction of its customers as well as achieving operational performance. Total Quality Management (TQM) concept ensures the organization constantly review its products and services to ensure they are in tune with the current demands of their customers. The banking sector in Ghana remains one of the very competitive sectors which offer varying products and services. This research is aimed at achieving operational performance

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considering organizational culture and Total Quality Management and the mediating role of product service innovation the Ghanaian financial institutions.

TQM, in the form of statistical quality control, which was invented by Walter A. Shewhart. In 1923, Walter Shewhart, then working at Bell Telephone Laboratories first devised a statistical control chart; which is still named after him. He published his method in 1931 as Economic Control of Quality of Manufactured Product. The method was first introduced at Western Electric Company's Hawthorn plant in 1926, in the form developed by Joseph Juran who had worked there with the method. TQM was demonstrated on a grand scale by Japanese industry through the intervention of W. Edwards Demingwho, in consequence, and thanks to his missionary labors in the US and across the world, has come to be viewed as the "father" of quality control, quality circles, and the quality movement generally.

The emergence of TQM has been one of the most significant developments in the United State (US). The focus on the development of TQM systems in the US appears to have begun around 1980 in response to Global competition and stiff rivalry in the US manufacturing subsector arising from Japan (Easton and Jarrell, 1998). In the last three (3) decades, TQM has become pervasive and widely accepted in manufacturing, services, government, healthcare and banking subsectors of the developed economies (Fotopoulos &Psomas, 2009; Freng et al (2008), Kaplan et al (2010). Al-swadi et al (2012) and Temtime (2003) assert that continuous attention has been given to TQM in the industrialized countries but researchers have started investigating quality practices in the developing countries in the last ten (10) years.

Total Quality Management (TQM) considered as a main tool extends to the strategy of structuring work and improving performance in order to achieve profitability through excellent services and quality products. It can be defined as the continuous improvement of administrative and productive processes through constant visit and analyzing the results achieved, and searching for appropriate means and methods to raise the level of performance and try to minimize the time and effort for the completion of production processes by abolishing all unnecessary functions for consumers and for the productive process to get to required level of total quality. In order to attain a competitive quality level, it is necessary to use many methods and skills of continuous quality improvement.

Choosing the appropriate method or the effective and appropriate tool is related to many elements and circumstances of the organization as a whole. Continuing Quality Improvement can be considered as the only way to improve the performance of organizations and banks. Continuing Quality Improvement and its various applications assist to achieve gains for banks by ensuring differentiated and constantly evolving services using quality improvement techniques, to eliminate problems and errors through the quality control methods to detect any defect in inspection in order to prevent its development and to detect the causes and remove them as soon as possible, It even can avoid the error or problem before it happened, which helps the bank to maintain its basic customers and gain the largest possible number of new customers.

TQM is a philosophy and a set of guiding principles that represent the foundation of an excellent organization and to ensure the survival of industrial organizations in the competitive economy of today (Besterfield, 1999). TQM is a technique that underscores the continuous improvement of products and services quality to satisfy customers and enhance productivity. Now, every organization has to pay much attention on what customer demand is. Who is our customer? How do we lure our customers? What do customers wish to experience when dealing with us? What do customers frame in their mind about us? All these questions should be taken into

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consideration hence it is the customer who defines quality (Arora 2006:1). Quality is fast becoming a critical aspect of banking, and in these few years has become a basic requirement for the survival of the industry. It is indeed worthy of note that quality needs to be natural through positive attitude and constitute a major component that ensures the delivery of services throughout the branches and units of the bank which will eventually give them competitive advantage. Before the deregulation of financial services and its consequent ready access to funds resulting in a new competitive environment, both the commercial and merchant banks in the country were competing with finance and mortgage houses, insurance companies and stockbrokers. The new competition brought about successes for some and spectacular failure for others. In the new millennium, banking has gone even beyond expectation, and for the surviving banks, competition has just begun. New products developed are vigorously vetted to gain competitive advantage over the existing products, reviewed and approved by the regulator before they are launched, all in the bid to attract more customers.

In the early 1990s, there was a sea of change in the banking industry that sent many Chief Executives of the industry back to the drawing board to find new ways to compete. At this time, the top management of the industry learned the fundamental lessons that customers were willing to pay a price premium for products and services that consistently meet high standard of quality. Customers now perceive that they have the right to demand for good services, since they pay for it. As the service industries are setting promises, all that the customer wants are for the promises to be kept and this define the reputation of the organization. According to Arora (2006:50), Reputation is either built or lost through satisfying or dissatisfying customers. What does it take to satisfy a customer today? The customer will have a need, which the banks are trying to fulfill. This may be weakly articulated or very vague. Either way, it is responsibility of the service provider to identify the need as precisely as possible and meet it. The customer will be satisfied once this is done.

The loss of a customer can be devastating, although the banks may be blissfully unaware of it. Each customer who walks away, takes away future years of repeat revenue. We do not sell to customers today, they buy. That is, they call the tune; they have the choice of banking with any bank of their choice (with the advent of a stable capital base for the existing banks). They will only bank with a particular bank if that bank delivers excellent and quality products and services. Excellence in services can be achieved through ISO 9000, ISO 14000, 18000, TQM, teamwork, and Quality Assurance. According to Arora 2006.9, quality of a product throughout its lifespan is total Quality. All personnel of the organization are committed to quality by doing the right thing the first time and every time by employing the organization's resources to provide value added quality to the customers. Total quality accomplishes the business goals by designing and supplying products and services to achieve customer satisfaction at an economic level.

A. V. Freignbaum 1983, Japan, conceived the term TQC (total quality control) TQC later became TQM. It is a corporate business management philosophy, which recognizes that customer needs and business goals are inseparable. Arora (2008:11). Management must be able to recognize that TQM will not happen by accident. TQM is a managed process, which involves people, system and supporting tools and techniques. Quality should begin to permeate financial institutions as a way of life and it should begin with employee satisfaction. TQM, though a recent phenomenon is important in the banking sector. It has evolved as a management concept out of the need by organizations for continuous quality improvement and critical importance of increased profitability and survival in the face of competitive challenges in the banking industry.

However organizational culture is another variable to be looked at. According to Wong (2020), Organizational culture is the collection of values, expectations, and practices that guide and

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inform the actions of all team members. Think of it as the collection of traits that make your company what it is. A great culture demonstrates positive traits that lead to improved performance, while a dysfunctional organizational culture brings out qualities that can restrain even the most successful organizations. The Consolidated Bank Ghana Limited as one of the banks used in the survey, was a merged institution which is made up of seven defunct banks and therefore has employees from diverse backgrounds. Their culture has to become one and it is the role of management to ensure same. Fidelity on the other side, has been the same since inception. They have strong cultural background.

1.2 Problem Statement

Banks being financial intermediaries are the backbone of any economic system involved in channeling funds from those having surplus to those having its shortage, (Luckett, 1994:36). The objective of this fund channeling is to earn income; part of which is paid to the surplus units and the rest kept by the financial institutions to pay for their operating expenses and their shareholders. To maximize profit, banks set up units and branches in order to reach their customers. Branches are the points where banks conveniently offer their products and services to their customers. Banking products are almost the same in any country but what matters is the way the product is offered and the quality aspects and organizational behaviors associated with those products. Total Quality Management (TQM), a buzzword phrase of the modern age is based on the assumption that quality can be managed in every aspect of a company's business. Total Quality Management is viewed as virtually a new organizational culture and a way of thinking. Therefore, the approach has an intense focus on customer satisfaction, accurate measurement of every critical variable in business operations, continuous improvement of products, services and processes and on work relationships based on mutual trust and teamwork, (Pearce & Robinson 2005:24).

Like other industries, quality improvement is taking place at a revolutionary pace in the banking sector, (Rana, 2005:15). Keeping in view the competitive environment in the banking sector where bank officers are trying their best to offer high quality services to their customers, there is great need to develop a TQM model for commercial banking branch operations, highlighting the different departments in the branch and the application of TQM principles to such departments with proper assessment of the extent of practice of TQM principles and how it affects the level of profitability that banks make. The possible low level of awareness of TQM among indigenous banks as compared to their foreign counterparts could account for their low profitability as well as operational losses as the services rendered are virtually the same.

2.0 MATERIALS AND METHODS

Total quality management (TQM) is a management philosophy which focuses on the work process and people, with the major concern for satisfying customers and improving the organizational performance (Talib, Rahman&Qureshi, 2012). They added that TQM involves the proper coordination of work processes which allows for continuous improvement in all business units with the aim of meeting or exceeding customer's expectations. It emphasizes on totality of quality in all facets of an organization with the aim of reducing waste and rework to reduce cost and increase efficiency in production and service delivery. TQM is applicable to any organization irrespective of size, and or motives, even the public sector organisations have started adopting the ideology in order to make them effective in meeting public demands (Rorio, 2015; Syed &Upadhyay, 2017). The International Standard ISO 8402, Quality Management and Quality Assurance Terminology defined TQM as the management approach of an organization, centred on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society. Rorio (2015)

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also posited that TQM is continuous improvement in the quality of all processes, people, products, and services of an organization. The tenets of TQM are continuous improvement, top management leadership commitment to the goal of customer satisfaction, employee empowerment, and customer focus (Rorio, 2015; AlAreqi, Al-Hadheq&Mutahar, 2018). The concept of TQM has been well accepted by managers and quality practitioners as a change management quality approach (Talib, Rahman&Qureshi, 2013). It plays a vital role in the development of management practices (Auniel&Mokaya, 2018). Some researchers asserted, it as an approach to improve effectiveness, flexibility, and competitiveness of a business to meet customers 'requirements (Madziwa, 2016; Daniel, 2016). It is also seen as a source of attaining excellence, creating a right first-time attitude, acquiring efficient business solutions, delighting customers and suppliers etc. it could be deduced from the various definitions that the implementation of TQM across organizations is aimed at achieving customer satisfaction and retention and invariably enhance organizational performance levels.

2.1 Total Quality Management Practices

Total Quality Management, TQM, is a method by which management and employees become involved in the continuous improvement of the production of goods and services. It is a combination of quality and management tools aimed at increasing business and reducing losses due to wasteful practices (Hashmi, 2010). In fact, Total Quality is a description of the culture, attitude and employee involvement to provide customers with products and services that satisfy their needs. The culture requires quality in all aspects of the company's operations, with processes being done right the first time and defects and waste eradicated from operations (Peters, 1994). TQM philosophy begins at the top, from the board of directors to the line employees.

TQM is an ideology which is focused on the satisfaction of customer's need. TQM require organizations to develop a customer focused operational process and at the same time committing the resources that position customers and meeting their expectation profitably. This implies an approach of changing the corporate culture of an organization to be customer centric. TQM requires effective change in organizational culture which is enhanced by the deep involvement/commitment of management to the organization's strategy of continuous improvement, open communication and cooperation throughout the organization; broad employee interest, participation and contribution in the process of quality management. Leaders in a TQM system view the firm as a system; support employee development; establish a multipoint communication among the employees, managers, and customers; and use information efficiently and effectively.

In addition, leaders encourage employee participation in decision-making and empower the employees. TQM requires effective knowledge management so as to ensure that employees obtain timely reliable, consistent, accurate, and necessary data and information as they need to do their job effectively and efficiently in the firm. TQM is concerned with the continuous improvement in all the process of design and operation, from the levels of planning and decision making to the execution of work by the front-line staff. The focus on continuous improvement leads to the formation of formidable team whose membership is determined by their work on the detailed knowledge of the process, and their ability to take improvement action. TQM also implies reducing and streamlining the supplier base to facilitate managing supplier relationships, developing strategic alliances with suppliers, working with suppliers to ensure that customer expectations are met.

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2.1.2 Innovation

Innovation, on the other hand, is used to refer to new products, services, processes or technologies that require acceptance and eventually adoption and implementation (Damanpour, 1991; Thompson, 1965; Zaltman et al., 1973). Innovation is the factor that enables the innovative processes to produce new products and services, new technologies and new concepts (Sutanto, 2017). According to Padilla-Melendez and Garrido-Moreno (2012), knowledge of innovation needs more communication, and interaction between not only researchers, but also stakeholders affected by this, as well as, leaders. This way new ideas, processes and interactions can have an economic and commercial benefit. Hence, leaders, managers and researchers in organizations and universities should be aware of the different ways of innovation. Innovation, in the literature, can be divided into different types. The most popular typology of innovation divides it into three types: "administrative vs technical," "product vs process" and "radical vs incremental" (Gopalakrishnan and Damanpour, 1997).

Another classification of the typologies of innovation was developed by Jensen et al. (2007). According to this classification, innovation can be classified as: "Science, Technology and Innovation" (STI) that is based on analytical knowledge and "Doing, Using, and Interaction" that is subject to knowledge retrieved from the engineering field (Coenen and Asheim, 2006; Lorenz and Lundvall, 2006). Innovation can be divided into three groups: product-related, technology-related and behavior related perspectives. The technology-related innovation is related to the readiness to adopt current technologies and processes and the tendency of the organization to adopt new technologies and processes internally (Kitchell, 1995). Behavior-related innovation relates to the speed, at which the organizational system is ready to adopt new ideas relative to competitors (Rogers, 1995). Lastly, product-related innovation is about the ability of an organization to generate new ideas, products, services and processes, or to buy them (Stalk et al., 1992).

Moreover, as innovation is responsible for implementing totally new or ameliorated versions of products, services or processes within the organization, or in the external relations (OECD and EUROSTAT, 2005), innovation can be classified into four categories. First, product innovation, which refers to the radical changes or ameliorations done to products and services. Second, process innovation, which refers to the major changes done to the production system or to the delivery mode. Third, organizational innovation, which refers to the adoption of new business processes that affect the business process within the organization and or on external relations. And fourth, marketing innovation, which refers to any change made to one of the four marketing Ps (product, price, placement and position) (OECD and EUROSTAT, 2005).

2.1.3 Service Innovation

Innovation is defined as "the act of introducing something new" (American Heritage Dictionary of the English Language, 2017). The aim of innovation is to identify new opportunities in order to make new products, services or work practices (Axtell et al., 2016). The service innovation differs from product innovation in many ways. First, service delivery staff is part of innovation in case of labor-intensive interactive services. Second, the services that involve the physical presence of customer need "local" decentralized production capacity. Third, service innovations do not carry brand names like an iPod or Samsung (Berry et al., 2016). The interaction with customers is an essential part of their service offerings. Therefore, service suppliers must build up suitable form of service product and proper way of interaction with customers because developing a new service is far more difficult than the development of new tangible product

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(Johne and Storey, 2017). According to numerous researchers, service innovation enables firms achieving competitive advantage (Kaplan, 2000). The benefits that accrue from starting new services include increase in the profitability, enhancing the customer satisfaction and loyalty of existing customers and the opportunity for opening new markets (Sampson, 2012). Due to technological advancements service firms are growing very fast and the competition amongst them is getting fierce day by day. Therefore, these firms are working very hard to provide high-quality service to their customers better than their competitors. These service organizations are moving their attention towards the implementation of TQM principles in service organization to offer better service quality to their customers (Rönnbäck and Witell, 2018).

2.1.4 Product innovation complementary

Literature has shown over a sustained period that product innovation has been considered one of the main drivers of value creation. Underpinned by technological change, this value creation stems from 'creative destruction' and the willingness to embrace risk and uncertainty; in effect, it destroys existing value in order to create new, superior value (Schumpeter 2014). Since Schumpeter's contribution, scholars have invested time and effort in coming to understand how companies acquire and develop technological capabilities as well as how they hone innovation processes to develop new products that generate the greatest value. Although our knowledge of6productinnovation has matured somewhat, many gaps remain. First, innovation is not limited to products and –in line with Schumpeter's initial definition –insufficient attention has been paid thus far to how other types of innovation create value, particularly business model innovation (Amit and Zott 2001; SnihurandZott 2014). Second, the interdependencies between different types of innovation, while noted, have not been extensively explored (SnihurandZott 2014; Zott and Amit 2008).

Indeed, authors have already noted that product innovation in itself is likely to be insufficient and should, therefore, be accompanied by the appropriate business model (Chesbrough and Rosenbloom2002; Teece 1986, 2010). These contributions, however, perceive the business model as a somewhat static factor that accompanies product innovation rather than a force for innovation and a source of value creation in its own right. Business model innovation represents a change in the design of the activity system that spans the focal firm and its clients, partners, suppliers and other stakeholders involved in the process of creating value (Zott and Amit2007). Drivers of value creation that underpin business model innovation have been more diverse, context-specific and less defined than those underpinning product innovations (Zott et al., 2011). Some effort has been made to define and group how business model innovation creates value. For instance, Amit and Zott (2001) group the value drivers of business model innovations for digital start-ups. They find that business model innovation helps e-businesses create value through an increase in novelty, efficiency, complementarity and lock-in.

Understanding how incumbents, particularly in 'non-digital' sectors, create value through business model innovation is beginning to attract research interest (Zottet al.2011). At the same time, the first contributions with respect to how manufacturing firms create value –specifically, the use value for customers –by shifting to service business models are beginning to appear (Rajaet al., 2013). Furthermore, the interplay between product innovation and business model innovation deserves greater attention. Researchers began to look at the supporting role that business models play in unlocking the value creation potential of technology change in the market place (Desyllas and Sako, 2013; Gambardella and McGahan, 2010), and they have increasingly argued that firms must consider how business model innovation and product

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innovation relate to one another (Chesbrough2010; Desyllas and Sako, 2013; Gambardella and McGahan, 2010; Teece 2010). Some contributions investigating the impact of the business model on product innovation are already in place.

2.1.5 Organizational Culture

Organizational culture is an important tool for organizations to reside in the ideas, values, norms, rituals and beliefs in order to secure organization sustainability (Sackmann, 1991). It is also an important mechanism to channel messages and information that will differentiate between permissible and non- permissible patterns of behaviour through the company's policies, decisions and activities. A strong organizational culture plays a role as a reliable compass and as a powerful lever to guide and balance member's behaviour (Wilson and Bates, 2003). According to Sackmann (1991), organizational culture will act as a control mechanism to create organizational commitment, achieve integration within organizations and help the organization adapt to the external changes.

However, the effectiveness of organizational culture depends on its strength (Deals & Kennedy, 1982). By default, SMEs are claimed to have stronger organizational culture by virtue of their size and visibility of the owner -managers (Wilson and Bates, 2003). There are many models and theories of organizational culture. However, many of these theories and models are using etic approaches that assume that organizational culture cannot be measured (Alvesson, 2002; Schein, 2004). However, there are others who argued that despite complexity and multilevel nature of the organizational culture, the levels of organizational culture are unified and thus assessing the overt layers would means tapping the deeper levels of the organizational culture (Cooke & Lafferty, 1986; Denison, 1990; O'Reilly & Chatman, 1991). This study would adopt the latter view of organizational culture and used Denison's model of organizational culture which is not only an observable behavioural- based model but has been validated within in business environment (Denison, et al., 2005).

2.1.6 Operational Performance

Operational Performance can be defined as the process of quantifying the efficiency and effectiveness of action. Effectiveness refers to the extent to which customer requirements are met, while efficiency is a measure to how economically to firms' resources are utilized when providing customer satisfaction. Effective implementation of TQM will increase customer satisfaction with the service offerings, ensures that organisations change how they perform activities so as to eliminate inefficiency, improve customer satisfaction and achieve the best practice (Ozaki, 2003). According to Sila, (2007) TQM helps in improving the quality of products and also reduces the scrap, rework and the need for buffer stock by establishing a stable production process. He argued that TQM will reduce the cost of production and time of production.

TQM enhance employees' training, information system management, relationship with suppliers (Khanna, Laroiya, & Sharma, 2010). The performance criteria include: quality leadership, human resource development, quality strategy, information resources, quality assurance in process and product, people satisfaction, customer satisfaction, social and environmental impact and, the results. Most of the previous studies report that overall TQM practices have positively been related to operation performance, quality performance, employee satisfaction/ performance, innovation performance, customer satisfaction/results, competitive advantage, market share, financial performance, and aggregate firm performance. The success of TQM will result in

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improved employee involvement, improved communication, increased productivity, improved quality, improved customer satisfaction, reduced costs of poor quality and improved competitive advantage (Arumugam&Mojtahedzadeh, 2011). Kaynak (2003) suggested that the effectiveness of TQM in an organisation should be measured by the degree of integration with their supplier bases because supplier quality management is a critical component of TQM. Operational effectiveness is then a function of how well the various units of an organization carry out their functions with quality.

2.1.7 Organizational culture and service product innovation

As innovation plays a significant role in determining an organization's success, several studies attempted to examine its antecedences (Crossan and Apaydin, 2010). Different studies found that organizational culture and organizational design are the most influential determinants (Mumford, 2000). Organizational culture can affect the innovative attitude in two ways. The socialization process teaches individuals how to behave and act toward one another. Moreover, the organization's structure, policy system, procedure and management orientation can be affected by the basic "values, beliefs and assumptions" (Martins and Terblanche, 2003). Hence, culture can encourage innovation among employees, because it drives them toward accepting innovation as a philosophy of the organization (Hartmann, 2006). Different values of culture were regarded as means to foster innovation. Examples of these cultural values were creativity and initiative (Jamrog et al., 2006), entrepreneurial mindset (McLean, 2005), freedom and autonomy (Ahmed, 1998), risk taking (Wallach, 1983), teamwork (Arad et al., 1997), marketing orientation and flexibility (Martins and Terblanche, 2003).

Research has given enough evidence for an existing relationship between organizational culture and innovation (Buschgens € et al., 2013; Chang and Lee, 2007; Lau and Ngo, 2004; Lin et al., 2013; Miron et al., 2004; Naranjo-Valencia et al., 2016; Rezaei et al., 2018; Tseng et al., 2008; Uzkurt et al., 2013). Organizational culture includes the norms that the members of an organization experience and describe as their work settings (Schneider et al., 2013). Such norms shape how members behave and adapt to get results in the organization. Organizational culture ishow the members of an organization interact with each other and other stakeholders (Simoneaux& Stroud, 2014). Organizational culture is a set of values, beliefs, and behavior patterns that differentiate one organization from other organizations (Ortega-Parra &Sastre-Castillo, 2013).

King (2012) defined organizational cultures as a system of values that subconsciously and silently drives people to make each choice and decision in the organization. Business managers use organizational culture and corporate culture interchangeably because both terms refer to the same underlying phenomenon (Childress, 2013). Business managers use an organizational culture to differentiate their company from other companies (Weber &Tarba, 2012). Apple Inc, the International Business Machines Corporation (IBM), and Hewlett-Packard Corporation (HP) exist on similar technology and same operating environment, but these companies have different organizational cultures (Schein, 2010). The Apple culture includes producing simple, elegant, and innovative products (Toma&Marinescu, 2013). Priorities in HP culture are employees' autonomy and creativity (Childress, 2013). The IBM's culturalfocal point is long-term thinking with loyal and highly motivated employees (Flamholtz& Randle, 2011; Kotter&Heskett, 1992). The difficulty about leadership is the handling of human resources in the organizational culture (Peters & Waterman, 1982). Yirdaw (2014) noted that organizational culture is the glue that combines the hardware (nonhuman resources) to the software (human resources) in the

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organization to establish teamwork and excellent performance. Organizational culture positively relates to corporate leadership and governance (O'Connor & Byrne, 2015). Many business managers understand the impact of culture on corporate performance (Unger, Rank, &Gemunden, 2014). Warren Buffet, one of the top three richest businesspersons in the world, confirmed how organizational culture is necessary to organizational success (Childress, 2013). Similarly, the founder of Starbucks Coffee Company, Howard Schultz, explained that organizational culture is a critical factor in the success of Starbucks (Flamholtz& Randle, 2012). Given this discussion, it is then positing the hypothesis that:

H1: Organizational culture has a positive relationship with service product innovation

2.1.8 Relationships between TQM Practices and Service Product Innovation

The key objective of product innovation is to accomplish the demands of the customers or capture external markets. Service product innovation is further classified into two sub-categories-radical product innovation and incremental product innovation. Service product innovations are the introduction of new offerings in the core of current services is the most common kind of innovation that may lead to new business benefits. The purpose of service innovation is to make the services more attractive to consumers by adding new flavors in the core of existing services (Khazanchi et al., 2007) Firms get momentum for market leadership and growth by making product improvements and adding new products to their product line (Iansiti, 1995). Product innovation opens new markets to the firm by attracting new customers. Product innovation also open firms in market share growth by adding new customers in the existing markets (Zahra & Nielsen, 2002).

The management of successful organizations show more commitment to the development of new product especially in terms of delivering sufficient funding and resources than less successful organizations (Kuczmarski& Associates ,1994). A study from Mercer Management Consulting (1994) reveals that management of high-performance companies is highly committed in the implementation of new product development strategy. The service products are easier to copy and hard to safeguard under commercial patents. Even so, in order to remain competitive, service firms should keep working on innovating service products (Chen &Tsou, 2007). The TQM dimension of customer focus persuade organizations to look for new customer needs and expectations and therefore direct organizations to be innovative in terms of exploring new products on continual basis in order to fulfill market's changing demands (Juran, 1988). To do so organizations need to be creative to exceed the needs and expectations of their customers. Similarly, customer focuses emphasis organizations to constantly seek for new customer's demands and expectations.

This strategy is closely related with innovation. Similarly, continuous improvement motivates change and creative thinking in their business work. Finally, TQM dimensions like employee empowerment, teamwork play important part in determining the success of organizational innovation (Prajogo&Sohal, 2001). Organizations who adopt TQM as management strategy are more innovative organizations (Baldwin and Johnson, 1996). The service firms that implement TQM practices will perform better in distinguishing their products and offering better services. The TQM dimension leadership motivates employees to present new ideas for solving problems for developing new products or services. Prajogo et al. (2008) found positive and significant relationship between TQM practices and product innovation. Therefore, it posits that:

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H2: Total Quality Management implementation has positive influence on service product innovation.

2.1.9 Relationship between operational performance and Service Product Innovation

Service quality play vital role in achieving sustainable competitive advantage. Satisfied customers increase organization's profitability by repeat purchase, brand loyalty and positive word of mouth. Service quality is the comparison of customer expectations with performance. Delivering service quality means fulfilling customer expectations on regular basis. During evaluating service quality customers compare the expected services with the services they receive. It is perceived judgment that is measured by comparing the customer expectations from the service and the level of service perceived by the customer (Parasuraman et al., 1998). Parasuraman et al. (1988) developed a scale to measure the service quality of different services provided by the service providers. It is one of the fundamental instruments used to measure perceived service quality and has been verified by numerous past studies.

The widely used SERVQUAL model is consist of five dimensions which suggest that customers focus on five dimensions in their assessment of services that are: Tangibles, reliability, responsiveness, assurance, and empathy. Service quality is the customer's overall judgment of excellence of service offering (Santos, 2003). Service quality is also influenced by capability of an organization in satisfying customer needs in accordance with their expectation level (Yoo& Park, 2007). Gronoos (1984) has presented his own two-dimensional model of service quality. He argued that service quality is a function of two variables: technical quality and functional quality. The technical quality deals with what is delivered whereas functional quality entails how it is provided. Customer loyalty is of great importance in the current literature because it's the primary force to boost firm's financial performance in the current business environment. Superior service quality is of fundamental importance in enhancing customer loyalty.

It has been proved from previous research that there is positive correlation between service quality and customer satisfaction (Cronin et al., 2000). Service quality is also closely linked with customer's intention to stay close to their service provider (Anton et al., 2007). Research has found that innovation plays a significant role in organization performance (Higgins, 1995; Hult et al., 2004). Organizations able to innovate are more capable to deliver new products and services, improve processes in a faster way to fit the market's needs and capitalize on opportunities better than non-innovative organizations (Jimenez-Jimenez et al., 2008). Moreover, innovation has been associated with higher levels of growth and profitability (Li and Atuahene-Gima, 2001). In the literature, several studies have been conducted to confirm the positive relationship between innovation and performance (Afcha, 2011; Artz et al., 2010; Baker and Sinkula, 2002; Chen et al., 2009; Damanpour, 1991; Damanpour and Gopalakrishnan, 2001; De Clercq et al., According to different studies being innovative can lead to growth in business performance in service firms. Cainelli et al. (2004) in their study investigated the effect of innovation on financial performance in service firms. Based on the discussion, it is hypothesis that:

H3: operational performance has a positive influence on Service Product Innovation

2.1.10 Mediating effect of Service Product Innovation on TQM Practices and operational performance

Service process innovation is the introduction of new or significantly improved production or delivery method for producing products or services for business purposes and can be

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implemented on whole value chain (Chen &Tsou, 2007; Sadikoglu&Zehir, 2010). The aim of Process innovation is to improving the productivity of the firm by creating or improving production methods or services as well as the enhancements in the development of processes, systems and reengineering activities in order to make new products or services (Garcia and Calantone , 2002; Khazanchi et al., 2007). Process innovation facilitates firms in creating large number of products and services on the expense of limited number of available resources. The incremental process innovation and radical process innovation are two categories of service process innovation (Reichstein and Salter, 2006). Research conducted on British companies found that processes improvements are critical for the success of product/service innovations (Oke, 2007).

Deming (1986) recommended that firms should continuously improve their products and services to satisfy their customer because it is major indictor of firm's market share and profitability. The satisfied customers increase firm's profitability by repeating their purchase of products or services. The TQM efforts resulted in increased customer satisfaction in big firms like IBM, Xerox and 3M (Ross, 1995). A study conducted by Prajogo&Sohal (2004) on manufacturing and non-manufacturing firms found TQM practices have positive and signification impact on product and process innovation. Martínez-Costa and Martínez-Lorente (2008) suggest that continuous improvement bring change in organizations and this change leads to innovations in the organization. Service innovation is an important feature of firm's capability to differentiate itself from its competitors and add more to firm's revenue. Innovations can enhance service differentiation; therefore, it is essential for managers to implement those innovations that are desired by the customers to generate revenues for the firm (Dev et al., 2005). The recent literature found direct and positive relationship between innovation and performance in different service sectors (Lin, 2011).

Firms which clearly define their innovation process for services are swifter and more successful in developing new services. The development of new services leads to higher revenue growth as well as increase in the share of their total revenue. Today's business environment is very competitive and therefore just providing quality services is not enough, companies should seek for new innovative service offerings that are valuable for customers (Bettencourt et al., 2013). Therefore, companies should pay more attention to their innovation strategy, processes and especially their services to make innovation process more systematic (Schulteß et al., 2010). Successful innovation strategies are more useful during the recession times when there is decrease in economic activity due to decrease spending. Service innovation is a big source of competitive advantage for those companies which capitalize on knowledge gained from customers, competitors and have the potential to develop more meaningful and unique services. The effective implementation of TQM practices will increase customer satisfaction with the service offerings (Omachonu& Ross, 1994).

Quality enhances customer loyalty through satisfaction; this in turn can generate repeat business and lead to the attraction of new customers through positive word of mouth. The word-of-mouth communication will help in cost reduction. The improvement in quality will result in increased market share and profitability. Total quality management is a management philosophy which emphasizes the devolution of authority to the front-line staff. It ensures the participation of everyone in the decision-making process through activities such as quality cycles and team work. The implementation of TQM ensures that every worker in the organisation does his work with quality the first time, thus improving the efficiency of operation and avoiding some cost

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associated with waste. This in turn will offer more value to customers in terms of price and service quality, thus making them satisfied. Implementation of TQM further ensures that organisations change how they perform activities so as to eliminate in efficiency, improve customer satisfaction and achieve the best practice (Porter, 1996). According to Sila (2007), TQM helps in improving the quality of products and also reduces and establishes a stable production process. Continuous improvement which is a feature of TQM is said to reduce the product cycle time thus improving performance (Huang &Lin, 2002). Many other TQM practices such as training, information system management, relationship with suppliers etc have a positive impact on operational performance.

The efficient management handling of these practices will improve efficiency and no doubt affect the profitability of the firm According to Sila (2007), TQM can minimize the total cost of production through sole sourcing. The cost in this case is reduced by limiting the number of suppliers used by the firm and providing them with necessary training and technology. The efficient functioning of an operation will then depend on how well the suppliers meet up with the expectations of the organisation. This is why the TQM principle emphasizes the totality of quality in all facets which includes the suppliers. The total quality approach creates an integrated method of analyzing operation by focusing the processes of production on customer satisfaction. Thus, it requires that quality be built into all the processes so as to be efficient in the overall operation (Andrle, 1994). Based on the argument, it is proposed that:

H4: Service Product Innovation Positively Mediates Total Quality Management Practices and operational performance

2.1.11 Mediating effect of Service Product Innovation on organizational culture and operational performance

It is argued that it is important to study the antecedents of success innovation performance because of the differences between services and products (Song, Song and Di Benedetto, 2009). Relative to products, services are widely recognized as being intangible, inconsistent, and inseparable. As a result, innovation practices developed for products may be inappropriate for services. Intangibility means that services require intensive information exchanges between service employees and customers (Lievens and Moenaert, 2000b). Inseparability refers to the simultaneity of service production and use requiring the interaction between customers and service employees during service delivery (e.g., de Brentani, 1989). As a result, services exhibit greater variance in their delivery performance (i.e., inconsistent or heterogeneous performance) making new services more difficult for consumers to assess, especially before purchase, making consumption inherently less likely (Dotzel et al., 2013). Risks are associated with service innovation because it is difficult for companies to fully gauge customer reactions prior to the introduction of a new service (Kuester et al., 2013).

These service characteristics suggest that the antecedents of service innovation performance may be different from those for products. The conceptual framework presented in this article builds on previous product innovation meta-analyses, and identifies six broad categories of service innovation performance antecedents. Henard and Szymanski (2001) identify four categories of antecedents of innovation performance: (1) product (service offering) characteristics that capture elements pertaining to the offering, such as value, innovativeness, and how well the offering meets customer needs; (2) strategy characteristics that refer to a firm's planned actions that can help it achieve competitive advantage in the marketplace; (3) process characteristics that refer

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specifically to elements associated with the development process and its execution; and (4) marketplace characteristics that capture elements that describe the target market. Additional meta-analyses identify organizational characteristics, which include the structure, climate and design of the firm (Evanschitzky et al., 2012; Montoya-Weiss and Calantone, 1994), and team characteristics, which concern how development teams are organized and managed (Cankurtaran, Langerak and Griffin, 2013; Chen, Damanpour and Reilly, 2010) as separate categories of antecedents. The conceptual framework of the present study used these six categories of antecedents as its starting point for three reasons.

First, whilst this classification schema is not definitive, it has pedagogical value and intuitive appeal (Henard and Syzmanski, 2001). Second, using this classification schema enables comparisons with meta-analytic findings on the antecedents of service and product innovation performance. Third, it further reflects frameworks proposed in the service innovation literature (de Brentani 2001; Johne and Storey, 1998; Kuester et al., 2013). However, the present study incorporated in its conceptual framework a number of antecedents that are specific to service innovation (e.g., service quality, front-line staff), within these six categories. Organizational culture includes the norms that the members of an organization experience and describe as their work settings (Schneider et al., 2013). Such norms shape how members behave and adaptto get resultsin the organization. Organizational culture ishow the members of an organization interact with each other and other stakeholders (Simoneaux& Stroud, 2014). Organizational culture is a set of values, beliefs, and behavior patterns that differentiate one organization from other organizations (Ortega-Parra &Sastre-Castillo, 2013).

King (2012) defined organizational cultures as a system of values that subconsciously and silently drives people to make each choice and decision in the organization. Business managers use organizational culture and corporate culture interchangeably because both terms refer to the same underlying phenomenon (Childress, 2013). Business managers use an organizational culture to differentiate their company from other companies (Weber &Tarba, 2012). Apple Inc, the International Business Machines Corporation (IBM), and Hewlett-Packard Corporation (HP) exist on similar technology and same operating environment, but these companies have different organizational cultures (Schein, 2010). The Apple culture includes producing simple, elegant, and innovative products (Toma&Marinescu, 2013). Priorities in HP culture are employees' autonomy and creativity (Childress, 2013). The IBM's cultural focal point is long-term thinking with loyal and highly motivated employees (Flamholtz& Randle, 2011; Kotter&Heskett, 1992). The difficulty about leadership is the handling of human resources in the organizational culture (Peters & Waterman, 1982). Yirdaw (2014) noted that organizational culture is the glue that combines the hardware (nonhuman resources) to the software (human resources) in the organization to establish teamwork and excellent performance.

Organizational culture positively relates to corporate leadership and governance (O'Connor & Byrne, 2015). Many business managers understand the impact of culture on corporate performance (Unger, Rank, &Gemunden, 2014). Warren Buffet, one of the top three richest businesspersons in the world, confirmed how organizational culture is necessary to organizational success (Childress, 2013). Similarly, the founder of Starbucks Coffee Company, Howard Schultz, explained that organizational culture is a critical factor in the success of Starbucks (Flamholtz& Randle, 2012). Given this discussion, it is then positing the hypothesis that:

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H5: service product innovation positively mediates organizational culture and operational performance

2.2 Empirical Review

Customer focus enables organisations to give priorities to customers thus involving them in every aspect of product and or service design and development in a bid to reduce quality defects. A quantitative study by Herzallah, Gutiérrez-Gutiérrez and Munoz Rosas (2014) found TQM practices adopted at SMEs in Palestine to include process management, customer focus, top management leadership and strategic planning. Shun-Hsing, Fei-Yun and I-Ping (2014) did a study to identify TQM practices and how they affect customer satisfaction and loyalty. The study focused on 402 customers in the securities industry located at cities of Hsin-Chu and Miao-Li of Taiwan. The study found TQM practices to include top management commitment, empowerment, product design, employee training, continuous improvement, process management and customer relationship management.Mwaniki, &Bichanga (2014) focused on determining the Effects of total quality management on financial performance in the banking sector: a case study of national bank of Kenya . This study was limited to establishing how the pillars of TQM, namely supplier relationship, customer relationship, processes and top management involvement relate to financial performance.

The four pillars of TQM formed the independent variables of the study while financial performance was the dependent variable. The findings of the study indicated a positive relationship between top management involvement, process and supplier relationship and financial performance. In their study Hassan, Mukhtar, Qureshi and Sharif (2012) examined the association between quality management practices and performance, i.e. quality, business, and organizational performance. The quantitative data were obtained through a survey from 171 quality managers of Pakistan's manufacturing industry. This study supports the hypothesis that quality management systems practices positively impact the performance. Quality management systems tools and techniques (Incentive and Recognition System, Process, Monitoring and Control and Continuous Improvement) and Behavioral factors (Fact based-management, top management's commitment to quality, employeeinvolvement and customer focus) contribute to the successful implementation of quality management systems. The study reports that successful adoption and implementation of quality management systems practices results in improving the performance of organization.

The main implication of the findings for managers is that with quality management systems practices, manufacturing organizations are more likely to achieve better performance in customer satisfaction, employee relations, quality and business performance than without quality management systems practices. According to Irfan, Ijaz, Kee and Awan (2012) in the study on Improving Operational Performance of Public Hospital in Pakistan used a questionnaire with fourteen Quality management systems practices to measure the impact of Quality management systems practices on operational performance of public hospital in Pakistan. Structural Equation Modeling (SEM) approach with AMOS 16.0 was employed to develop a Quality management systems and performance model. A total of 239 questionnaires was included in the study and the results show that selected Quality management systems practices has a significant positive impact on quality management systems implementation and also on operational performance in terms of increased flexibility, improved quality of services, reduction in service time and effective diagnostics. In examining whether quality management work in the public sector Stringham (2004) focused on the quality movement in the United States during the

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past two decades in the context of public management. The paper reviewed the impact of the Pennsylvania Department of Transportation's twenty-year experience with its quality improvement program on overall organizational performance and productivity. The study concluded with a discussion of the challenges of sustaining a quality program through the frequent changeover of senior political appointee leadership and the inherent tension between process improvement quality approaches and cost savings/cost avoidance approaches that surface during times of government fiscal crises. Adeoti (2003) examined the gains of application of total quality management in the service industry with particular reference to the commercial banks in Nigeria and also to see how the application of TQM can prevent future threats of distress in commercialbanks. Three banks were selected randomly, one to represent each of the three generation banks. The results of the study showed that the quality and quantity of employees employed determine to a very large extent the survival of any bank, also that the application of TQM is not immunity against distress but a preventive mechanism for distress.

2.3 Diffusion of Innovation Theory

The roots of the discussion about innovation seem to be found in the early 20th century, with the fundamental contribution of Joseph Schumpeter. Schumpeter discusses that large companies operating in concentrated industries are the main source of innovative activity (Schumpeter, 1934) and characterizes innovation as the engine of economic development that can replace the old with the new, causing significant changes in economic systems (Schumpeter, 1942). Later, Rogers (1962) elaborates the Diffusion of Innovation Theory, which examines the processes by which innovation is communicated and adopted over time among the participants of a given social system. Rogers identified four main elements that influence and disseminate a new idea: the innovation itself, the communication channels,time and a social system. Another set of explanations for innovation is offered by the Economic Evolutionary Theory, proposed by Nelson and Winter (1982). Their model supports that the behavior of any company is based on a set of learned principles or routines. Evolutionary theories understand innovation as a process dependent on its development through interactions between their various actors and subsequently tested in the market. These theories and market tests largely determine which products are developed and which are successful, there by influencing the future path of economic development.

Drucker (1985) characterizes innovation as the tool of entrepreneurs, being how they explore change as an opportunity for a different business or service. For Cooper (1994), innovation and development of new products are the processes themselves and for Kuhlmann (2001), the essential element for innovation are the institutions involved in scientific research, responsible for the accumulation and dissemination of knowledge, the ability to educate and train the working population, develop technology, produce products, develop innovative processes and distribute them. In the Open Innovation Model proposed by Chesbrough (2003), companies commercialize internal ideas through external channels to generate value for the organization. In other words, it is a set of external knowledge and ideas together with internal research and development, which offers new ways to create value. For the author, the boundary between a company and its environment is flexible, which enables internal and external ideas for the organization to generate innovation for the market. The dynamic of competition in the market and financial resources are two factors that influence innovation processes. The contributions of other people with whom the company maintains contact, such as customers, suppliers and distributors, are crucial in the innovative process (Urbanet al., 1997;Lusch and Nambisan, 2015;Arthur, 2009;Sofka and Grimpe, 2010), whereas the partnership between employees and

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managers is quoted byOrdanini and Parasuraman (2011)as a robust booster of innovation in services that can contribute with volume and radicality. Vincentet al.(2004)consider fundamental to understand innovation, as it is the main source of sustained economic growth (Rodríguez-Pose and Crescenzi, 2008). As a financial incentive, Mouraet al. (2019) and Gibson and Naquin (2011) refer those effects of those for companies through public financing, are essential to stimulate innovation in the European Union, and at a policy level, many factors can affect the development innovation investment. Continued investment in innovation, especially in the development of knowledge and skillsets within the country, is critical to the development of tacit knowledge for Portugal (Gibson and Naquin, 2011).

2.4 Empirical studies on Total Quality Management

The concept behind the identification of TQM practices is to successfully implement TQM approach in the organisation so as to achieve productive results with high level of customer satisfaction by delivering enhanced quality products and services (Hoang, Igel&Laosirihongthong ,2010; Talib et al., 2011). Alternatively, it can be said that the TQM practices are the building blocks of organization's performance and must be addressed critically so as to implement TQM effectively. The section presented extensive reviews of related literature on total quality management practices adopted in various sectors notably the banking sector across the globe. For instance, Saravanan and Rao (2007) identified top management commitment and leadership, benchmarking, customer focus and satisfaction, service marketing, social responsibility, human resource management, employee satisfaction, service culture and continuous improvement as major TQM dimensions. Sadikoglu and Zehir (2010) similarly revealed customer focus and continuous improvement as TQM practices. He explained that customer focus, for instance, reveals what customers want in order to design products and services to exceed such wants.

An empirical review by Lenka and Suar (2008) found six TQM practices to include customer orientation, continuous improvement, quality measurement, organisational culture, human resource management and leadership. Duggirala, Rajendran and Anantharaman (2008) concluded that process management as a TQM practice is critical as it ensures error-free services in the most unique, innovative and efficient manner. Similarly, Selvaraj (2009) studied about TQM practices in the Indian banking industry and found such practices to include customer focus, social responsibility, human resource management, employee satisfaction and top management commitment. Fotopoulos and Psomas' (2009) study found TQM practices to include employee management and involvement, customer focus, leadership and continuous improvement, among other factors. Other studies by Talib and Rahman (2010) and Jha and Kumar (2010) found TQM practices to comprise continuous improvement, meeting customers' requirements, reducing rework, long-work thinking, increased employee involvement and teamwork, process redesign, competitive benchmarking and team-based problem solving.

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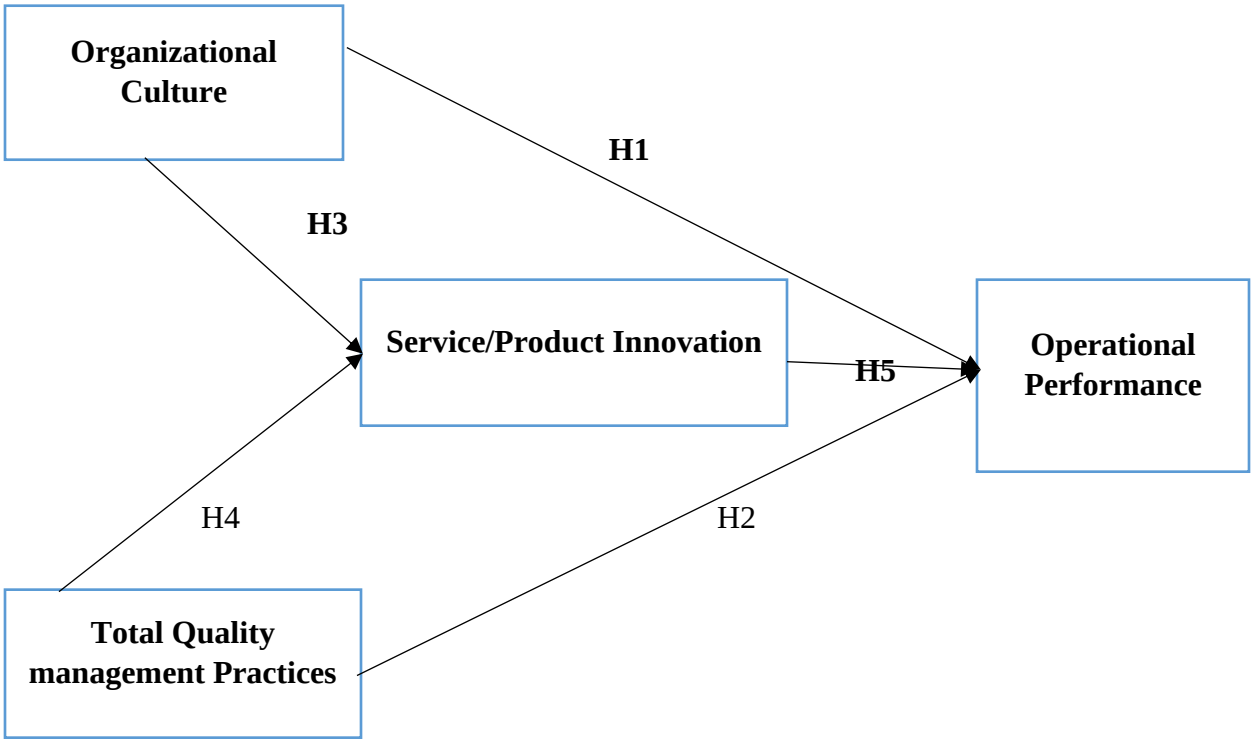
2.5 Conceptual Framework for the study



3.0 METHODOLOGY

3.1 Research Design

An explanatory research design was deemed appropriate for the study on total quality management (TQM) practices, organizational culture, and firm performance; the moderating effect of service product innovation" because it seeks to explain the relationships between multiple variables TQM practices, organizational culture, and firm performance and how service product innovation might influence these relationships. This design goes beyond mere description or correlation; it investigates the causal links and underlying mechanisms driving these relationships (Saunders et al., 2019). The study aims to explore how TQM practices and organizational culture impact firm performance, with a focus on whether and how service product innovation moderates this relationship. Explanatory research allows for hypothesis testing, which is key to understanding whether TQM practices lead to improved firm performance through certain cultural and innovative elements (Creswell & Creswell, 2018). By applying explanatory research, the study can generate insights into whether the presence of strong innovation practices amplifies or dampens the effects of TQM and organizational culture on firm success.

3.1 Population of the Study

Shukla (2020), Population refers to the set or group of all the units on which the findings of the research are to be applied. Referring to the definition of population, we can say that it consists of all the units on which the findings of research can be applied. In other words, population is a set of all the units which possess variable characteristic under study and for which findings of research can be generalized.

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The target population here refers to the group of firms from the general population which the researcher drew conclusions on. In this survey, employees of the two selected banks (i.e., The Consolidated Bank Ghana Limited and Fidelity Bank Ghana Limited). According to Barbie (2004), the population should gain from the study for they are the reason for which the study is being conducted. Therefore, this study is strategized to promote product and service innovation in the banking sector. The study is looking at the influence of organizational culture and total quality management practices on firm's performance in the banking sector of Ghana in one selected public bank and one privately owned bank in the Greater Accra metropolis. The study decided to select the The Consolidated Bank Ghana (Head Office Manet Tower) and Fidelity Bank Ghana Limited (Head office Ridge Towers).

The researcher arrived on these two banks within the Greater Accra Metropolis because, upon investigation, the researcher discovered that these two banks engage in service product innovations and have diverse cultural backgrounds. During the investigation with some staff of Consolidated bank Ghana Limited, the researcher discovered that bank engages in service product innovation activities. The second organization (Fidelity Bank Ghana Limited) upon instigation also revealed that, they engage in service product innovation.

3.2 Sampling Technique and Sample size

Sample refers to the representative of the population that have the same feature of the population. Sample is selected as the subject of a research because of large size of the population. According to Lund (2012), sample is the miniature of a population. Therefore, the end result of the study on a sample should be conformable to the population. The author further explained that the sample should come from the population and the population should possess similar characteristics and function so that it becomes reasonable to apply the same findings on the population. The sampling was considered on these informed reasons; Sarandakos (2005) outlines some reasons for sampling. Since full coverage of a population is not possible when conducting research; sampling produces similar and equally suitable results.

Studies based on sampling requires less time and produce quick results, it requires a small proportion of the target population; sampling is more economical and it provides high degree of accuracy as well as detailed information needed for the study. Taking the time frame of the study and the need to bring out a finding reasonable for generalization, the researcher selected a sample of 100. Because of the nature of the study, the sample was chosen purposively and conveniently. The survey institutions were purposely selected. The researcher also purposively chose consolidated bank Ghana Limited and Fidelity bank Ghana limited due to the fact that they are within the banking industry. In addition, the convenience sampling technique opted permitted for the selection and inclusion of available and willing research participants in the operations department of each bank. Thus, the respondents were selected depending on their willingness to participate in the research.

4.0 RESULTS AND DISCUSSIONS

4.1 Introduction

Concerning the age interval of the respondents, 34 of the respondents were between the ages of 20-29 years representing 22.2%, 55 of the respondents were between the ages of 30-39 representing 35.9%, 56 of the respondents were between the ages of 40- 49 representing 36.6% and 8 of the respondents were 50 years or more representing 5.2%. The gender fairness consideration of the respondents, 81 of the respondents was male representing 52.9%

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whereas 72 of the respondents were female representing 47.1%. This strongly indicates that gender balanced was highly taken into consideration where male and female views were solicited to arrival at sound conclusions. The working experiences, 31 of the respondents have about 3-5 years working experience constituting 20.3%, 57 of the respondents have about 6-10years working experience constituting 37.3%, 46 of the respondents have about 11-15years working experience constituting 30.1%, 15 of the respondents have about 16-20 years working experience constituting 9.8 and 4 of the respondents have about 20 years working experience constituting 2.6%. The educational backgrounds, 9 of the respondents were first degree graduate representing 5.9%, 68 of the respondents were second degree graduate representing 44.4% whereas 76 of the respondents were Doctor of philosophy graduate representing 49.7%.

Table 4.1 Respondents Background

Profile	Characteristics	Frequency	percentage
Age	20-29	34	22.2
	30-39	55	35.9
	40-49	56	36.6
	50 or more	8	5.2
	Total	153	100
Gender	Male	81	52.9
	Female	72	47.1
	Total	153	100
Working experience	0-5	31	20.3
	6-10	57	37.3
	11-15	46	30.1
	16-20	15	9.8
	20+	4	2.6
	Total	153	100
Position	First degree	9	5.9
	Second degree	68	44.4
	Doctor of Philosophy	76	49.7
	Total	153	100

4.2 Validity and reliability

Validity refers to the extent to which a measure or set of measures correctly represent the constructs of the study (Bhattacherjee, 2012). Reliability is an assessment of degree of consistency between multiple measurements of the same variable. It is therefore concerned with whether alternative measurements at different times would reveal similar information. Variables differ in how well they could be measured-i.e., how much measurable information their measurement scale is able to provide. There is some measurement error involved in every measurement, which determines the amount of information that can be obtained (Bhattacherjee, 2012). Reliability refers to the consistency and stability of a score from measurement scale as to whether the results in the survey could be duplicated in similar surveys (Bhattacherjee, 2012). Reliability is said to be particular important when latent variables are calculated from underlying item scales. Since these scales consist of a group of interrelated items designed to measure underlying constructs, it is important to establish whether the same set of items would extract the same responses if they were re-administered to the same sample group on more than one occasion. Variables derived from test instruments are only said to be reliable when it is clear

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that they elicit stable responses over multiple measurements of the instrument's surveys (Bhattacherjee, 2012). Cornbrash's Alpha coefficient was used as a measure of internal consistency-reliability of the scale used in this study. Cronbach's Alpha is a measure of internal reliability for multi-item summated rating scales. Its values range 0 and 1, where the higher the score, the more reliable the scale. A coefficient reliability of 0.70 or higher indicated that the instrument used is reliable (Cronbach, 2004). Also, in order to analyze the data in relation to ascertain the validity threshold, the measurement of the response using Kaiser Mayer Olkin test to be certain that the data is acceptable to proceed to the inferential statistics to make fair and valid conclusions. Kaiser (1974) proposes that values above 0.5 are acceptable and appropriate. In a situation that the value is less than 0.5, then there is a need to collect additional data or reconsider which variable is to take into consideration. The table 4.2 presents the results on the reliability and the validity of the constructs.

Table 4.2 Validity and reliability

Variable	Items	Loadings	KMO (Approx. Chi Square)	Variance (%)	Cronbach's Alpha
Total Quality Management	CI5	.854	.946 (3066.528)	61.386	.968
	CI4	.826			
	CI3	.854			
	CI2	.843			
	CI1	.820			
	EI4	.776			
	EI3	.784			
	EI2	.731			
	EI1	.779			
	ET3	.812			
	ET2	.708			
	ET1	.756			
	TMC4	.723			
	TMC3	.727			
	TMC2	.641			
	TMC1	.598			
Organizational culture	OCM6	.841	.937 (2424.222)	60.155	.960
	OCM5	.833			
	OCM4	.793			
	OCM3	.831			
	OCM2	.798			
	OCM1	.784			
	OCA6	.752			
	OCA5	.792			
	OCA4	.760			
	OCA3	.818			
	OCA2	.798			
	OCA1	.713			

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	OCC6	.774			
	OCC5	.702			
	OCC4	.602			
	OCC3	.638			
	OCC2	.629			
	OCC1	.675			
	OCI5	.764			
	OCI4	.837			
	OCI3	.827			
	OCI2	.806			
	OCI1	.812			
Firm performance	OP1	.696	.898 (1936.402)	69.203	.955
	OP2	.698			
	OP3	.661			
	OP4	.725			
	OMP1	.835			
	OMP2	.848			
	FP1	.876			
	FP2	.872			
	FP3	.894			
	FP4	.895			
	FP5	.895			
Service innovation	SI1	.776	.872 (854.674)	75.812	.936
	SI2	.819			
	SI3	.852			
	SI4	.870			
	SI5	.862			
	SI6	.876			

Reliability StatisticsCronbach's Alpha Based on Standardized Items of total quality management of .968, Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .946, Approx. Chi Square of 3066.528 and Variance (%) of 61.386 were all within the acceptable threshold. Cronbach's Alpha Based on Standardized Items of Organizational culture of .960, Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .937, Approx. Chi Square of 2424.222 and Variance (%) of 60.155 were all within the acceptable threshold and therefore the items for the variable are deemed reliable. Cronbach's Alpha Based on Standardized Items of firm performance of .955, Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .898, Approx. Chi Square of 1936.402 and Variance (%) of 69.203 were all within the acceptable threshold acceptable threshold and therefore the items for the variable are deemed reliable. Cronbach's Alpha Based on Standardized Items of Service innovation of .936, Kaiser-Meyer-Olkin Measure of Sampling Adequacy of .872, Approx. Chi Square of 854.674 and Variance (%) of 75.812 were all within the acceptable thresholdand therefore the items for the variable are deemed reliable. The factor loading of items below 0.7 is considered to be low and therefore not considered for the Discriminant validity, Convergent validity and composite reliability. The table 4.3 below presents the results of thevalidity tests.

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Table 4.3 Validity and Reliability test

Variable	AVE	Discriminant Validity	Composite Reliability
Total Quality Management	0.619	0.787	0.958
Organizational Culture	0.628	0.792	0.969
Firm Performance	0.734	0.857	0.956
Service Innovation	0.711	0.843	0.936

Igbaria et al. (1997) demonstrated that a variable is of good fit if the latent variable shows the factor loading of > 0.50. Haire et al. (2019) recommended that an Average Variance Extracted (AVE) as convergent validity measure since AVE could explain the degree to which items are shared between the construct in Structural Equation Modeling (SEM) where AVE 0.5 or more are acceptable as convergent validity. The scale development in this study involved four constructs namely Total Quality Management, Organizational Culture ,Firm Performance and Service Innovation Sand. The results indicated that the AVE values for the four constructs respectively were 0.619; 0.628; 0.734 and 0.711. As all the constructs were within and above the threshold of > 0.50, it is concluded that they could measure the latent variables. Hence, they fulfilled the Convergent Validity Criteria.

Haire et al. (2019) stated that discriminate validity could be established by correlating one construct to another. If the correlation value of both constructs is lower than 0.85, it means that the discriminate validity exists. Besides, Furnell and Larker (1981) argue that discriminate validity exists if latent variable shows more variance on related indicator variable rather than share with other construct in the same model. The table 4.4 presents the covariance of the variables. Also, a composite reliability is fit if the variable measurement is .70 and above. The table 4.3 shows Total Quality Management composite reliability of = 0.958; Organizational Culture composite reliability of =0.969; Firm Performance composite reliability of 0.956 and Service Innovation composite reliability of 0.936. All the three constructs composite reliability values were above the threshold of 0.07 therefore the variables items are highly reliable.

Table 4.4 Correlations among the Constructs

CONSTRUCTS	CORRELATIONS
TQM<-->OC	.805
SI<-->OC	.832
TQM<-->SI	.721
FP<-->SI	.705
TQM<-->FP	.801
FP<-->OC	.777

Note: TQM =Total Quality Management, OC=Organizational Culture, FP= Firm Performance and SI= Service Innovation.

Haire et al. (2019) stated that discriminate validity could be established by correlating one construct to another. If the correlation value of both constructs is lower than 0.85, it means that the discriminate validity exists. The results presented in the table 4.4 indicate that the correlation value of both constructs is lower than 0.85, confirming that discriminate validity exits since all the correlation values are within the acceptable threshold of 0.85 Haire et al. (2019). The correlation value of Total Quality Management and Organizational Culture Characteristics Discriminate Validity (DV) of: 0.805, Service Innovation and Organizational Culture

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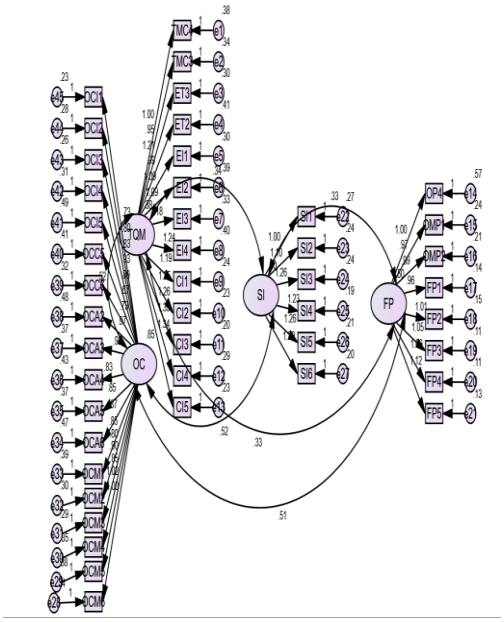
Characteristics Discriminate Validity (DV) of: 832, Total Quality Management and Service Innovation Characteristics Discriminate Validity (DV) of: .721, Firm Performance and Service Innovation Characteristics Discriminate Validity (DV) of: .705, Total Quality Management and Firm Performance Characteristics Discriminate Validity (DV) of: .801 and Firm Performance and Organizational Culture Characteristics Discriminate Validity (DV) of: .777 were all below the threshold of 0.85 had fulfilled the criteria of discriminate validity.

4.3 Covariance's among the constructs

Covariance measures the directional relationship between two random variables. This helps to establish as to whether the two variables vary in the same direction thus positive covariance or negative covariance. The table 4.5 presents the results.

Table 4.5 Covariance's among the constructs

Variables			Estimate	S.E.	C.R.	P	Label
FP	<-->	TQM	.362	.059	6.111	***	par_53
FP	<-->	OC	.422	.068	6.167	***	par_54
TQM	<-->	OC	.684	.096	7.120	***	par_55
SI	<-->	OC	.523	.078	6.723	***	par_56
TQM	<-->	SI	.456	.068	6.713	***	par_57
FP	<-->	SI	.272	.047	5.799	***	par_58



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4.4 Variances among the Constructs

As covariance only talks about the direction which is not enough to understand the relationship completely, there was the need to also consider the variances and the table 4.6 presents the results.

Table 4.6 Variances among the constructs

	Estimate	S.E.	C.R.	P	Label
TQM	.378	.076	4.955	***	par_48
FP	.501	.105	4.750	***	par_49
SI	.397	.071	5.609	***	par_50
OC	.846	.131	6.463	***	par_51
e1	.382	.045	8.425	***	par_52
e2	.343	.041	8.424	***	par_53
e3	.304	.037	8.173	***	par_54
e4	.409	.048	8.452	***	par_55
e5	.304	.037	8.281	***	par_56
e6	.386	.046	8.373	***	par_57
e7	.332	.040	8.247	***	par_58
e8	.400	.048	8.283	***	par_59
e9	.243	.030	8.066	***	par_60
e10	.229	.029	7.957	***	par_61
e11	.199	.025	7.821	***	par_62
e12	.292	.036	8.014	***	par_63
e13	.228	.029	7.837	***	par_64
e14	.572	.068	8.457	***	par_65
e15	.237	.029	8.125	***	par_66
e16	.212	.026	8.021	***	par_67
e17	.138	.018	7.702	***	par_68
e18	.148	.019	7.671	***	par_69
e19	.107	.015	7.146	***	par_70
e20	.110	.016	7.076	***	par_71
e21	.126	.017	7.206	***	par_72
e22	.266	.033	8.072	***	par_73
e23	.242	.031	7.851	***	par_74
e24	.243	.032	7.584	***	par_75
e25	.192	.026	7.338	***	par_76
e26	.215	.029	7.430	***	par_77
e27	.196	.027	7.239	***	par_78

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	Estimate	S.E.	C.R.	P	Label
e28	.337	.041	8.163	***	par_79
e29	.382	.047	8.204	***	par_80
e30	.352	.042	8.334	***	par_81
e31	.292	.036	8.204	***	par_82
e32	.298	.036	8.321	***	par_83
e33	.386	.046	8.371	***	par_84
e34	.473	.056	8.416	***	par_85
e35	.366	.044	8.348	***	par_86
e36	.427	.051	8.417	***	par_87
e37	.368	.044	8.284	***	par_88
e38	.482	.058	8.354	***	par_89
e39	.323	.038	8.413	***	par_90
e40	.409	.048	8.511	***	par_91
e41	.490	.058	8.415	***	par_92
e42	.314	.038	8.202	***	par_93
e43	.260	.032	8.226	***	par_94
e44	.281	.034	8.294	***	par_95
e45	.228	.028	8.284	***	par_96

The variance was performed to confirm the results of the covariance. The total quality management (Estimate of =.378; Standard Error of = .076; Critical Ratio of = 4.955 and P < 0.000) establish a very strong positive complete relationship. Organizational performance (Estimate of = .501; Standard Error of = .105; Critical Ratio of = 4.750 and P < 0.000) affirm a positive complete relationship. Organizational Culture (Estimate of = .846; Standard Error of = .131; Critical Ratio of 6.463= and P < 0.000) assert a good positive complete relationship. Service Innovation (Estimate of =.397; Standard Error of =.071; Critical Ratio of = 5.609and P < 0.000) establish a very strong positive complete relationship. All the items for the four variables indicate a very strong and positive complete relationship hence the items are deemed for Structural Equation Modeling.

4.5 Hypothetical model for the study

The hypothetical model of the study was tested by using AMOS, version 26. The Structural Equation Model (SEM) was used to test the direct influence of the independent variables on the dependent variables as well as the moderating and mediating effect. This was carried to ascertain the extent in which the independent variables can overall affect the dependent variables to help arrive at logical conclusions. The figure 4.2 presents the results.

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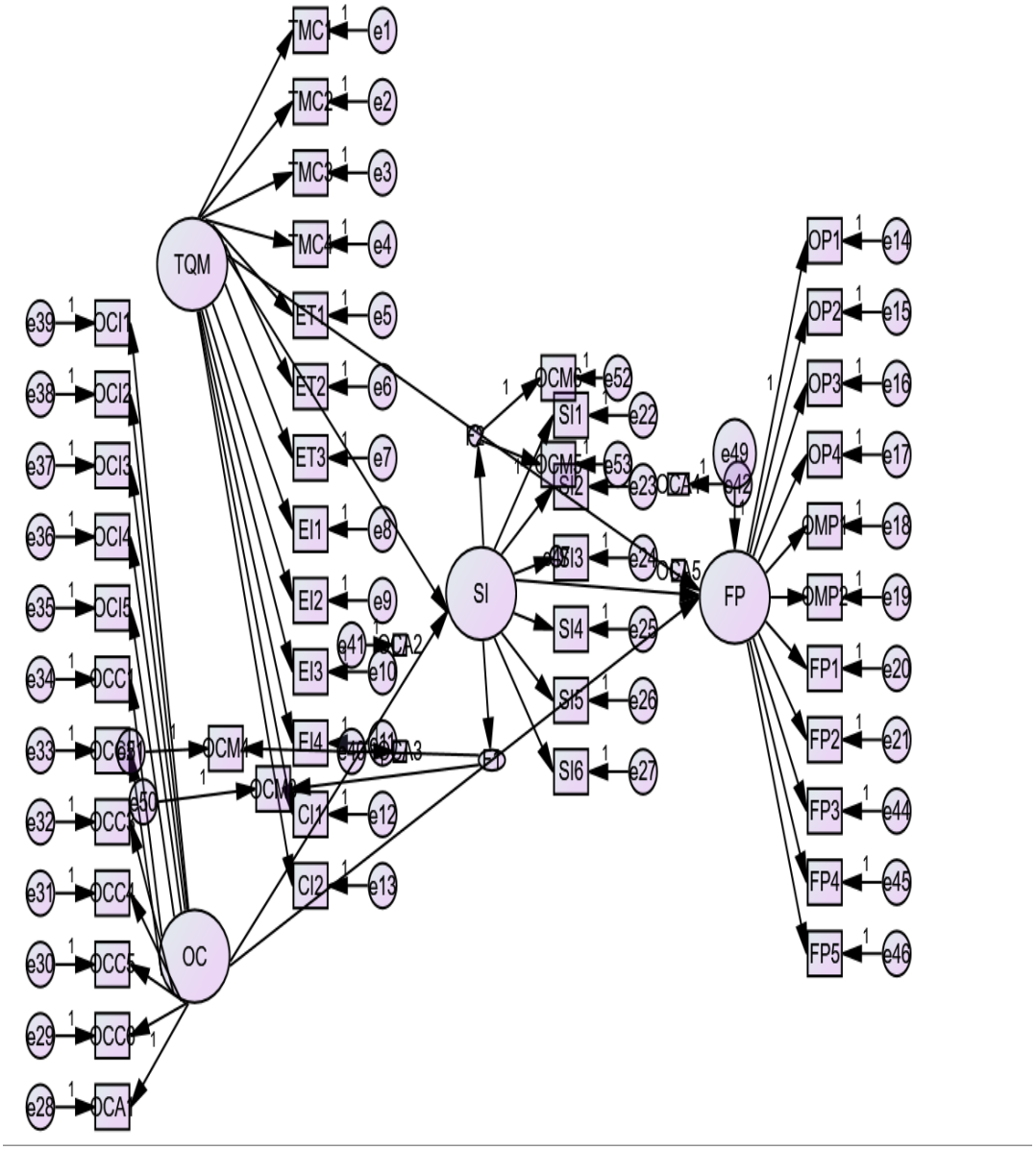
Figure 4.2 Hypothetical Model for the Study



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4.6 Hypothetical Model Results

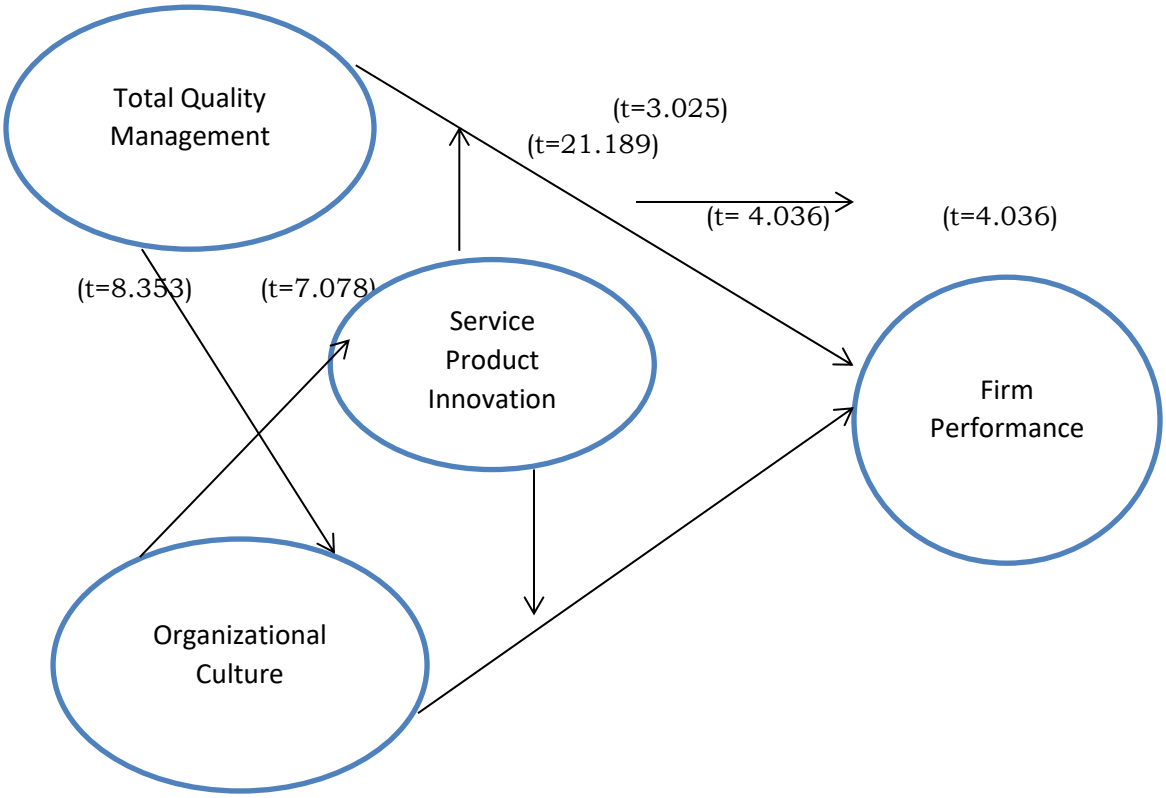

Table 4.7 Hypothetical Regression Results

Regression variables	Estimate	S.E.	C.R.	P
Total Quality Management - -> Service Product Innovation	.388	.062	6.241	.000
Organizational culture - - > Service Product Innovation	.390	.047	8.353	.000
Service Product Innovation - - > Firm Performance	.374	.093	4.036	.000
Organizational culture - - >Firm Performance	.070	.180	.391	.696
Total Quality Management - ->Firm Performance	.313	.104	3.025	.002
Service Product Innovation- - > Total Quality Management - - >Firm Performance	.858	.0405	21.189	.0000
Service Product Innovation- - >Organizational culture -- >Firm Performance	.961	.1358	7.078	.0000

The study examined the effect of total quality management on service product innovation and the (Estimate value of = .388; Standard Errorvalue of =.062; Critical Ratio value of = 6.241 and Probability value of <0.000) statically indicate that total quality management can overall affect service innovation of about 39%. This postulates that total quality management has strong influence on service innovation. The statistical values indicate that total quality management has a positive and significant effect on service innovation.

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The study examined the effect of organizational culture on service product innovationand the (Estimate value of = .390; Standard Error value of =.047; Critical Ratio value of = 8.353 and Probability value of <0.000) statically indicate that organizational culture can overall affect service innovation of about 39%. This postulates that total organizational culture has strong influence on service innovation. The statistical values indicate that total organizational culture has a positive and significant effect on service innovation.

The study examined the effect of service product innovation on firm performance and the (Estimate value of = .374; Standard Error value of =.093; Critical Ratio value of = 4.036 and Probability value of <0.000) statically indicate that organizational culture can overall affect service innovation of about 37%. This postulates that total service product innovation has strong influence on firm performance. The statistical values indicate that service product innovation has a positive and significant effect on firm performance.

The study examined the effect of organizational culture on firm performance and the (Estimate value of = .070; Standard Error value of =.180; Critical Ratio value of = .391 and Probability value of <0.696) statically indicate that organizational culture can overall affect service innovation of about 7%. This postulates that total organizational culture has weak influence on firm performance. The statistical values indicate that total organizational culture has a positive and but insignificant effect on firm performance.

The study examined the effect of total quality management on firm performance and the (Estimate value of = .313; Standard Error value of =.104; Critical Ratio value of = 3.025 and Probability value of <0.002) statically indicate that organizational culture can overall affect service innovation of about 10%. This postulates that total quality management has strong influence on firm performance. The statistical values indicate that total organizational culture has a positive and but significant effect on firm performance.

The study considered the mediating effect of service innovation on the relationship between total quality management and firm performance and the (Estimate value of = .858; Standard Error value of =.0405; Critical Ratio value of = 21.189 and Probability value of <0.0000) statically indicate that service innovation can overall affect the relationship between total quality management and firm performance of about 86%. The statistical values indicate that service innovation positively and significantly mediates the relationship between total quality management and firm performance.

The study finally assessed the mediating effect of service product innovation on the relationship organizational culture and firm performance and the (Estimate value of = .961; Standard Error value of =.1358; Critical Ratio value of = 7.078 and Probability value of <0.0000) statically indicate that service innovation can overall affect the relationship between total quality management and firm performance of about 96%. The statistical values indicate that service product innovation positively and significantly mediates the relationship between organizational culture and firm performance.

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Table 4.8 Hypothesis testing and findings

Hypothesis	Relationship	Beta Value	T Value	P<	Remarks
H1	TQM - -> SPI	.388	6.241	.000	Supported
H2	OC - - > SPI	.390	8.353	.000	Supported
H3	SPI - - > FP	.374	4.036	.000	Supported
H4	OC - - >FP	.070	.391	.696	Not supported
H5	TQM - ->FP	.313	3.025	.002	Supported
H6	SPI- - > TQM-->F P	.858	21.189	.0000	Supported
H7	SPI- - >OC-->FP	.961	7.078	.0000	Supported

5.0 CONCLUSIONS

The study examined the effect of total quality management on service product innovation and the findings of the study indicate that total quality management has a positive and significant effect on service innovation. Literature posits that many business managers confirmed that a positive organizational culture as a primary factor in the success of their businesses (Childress, 2013; Melo, 2012). For example, the founders from Walmart and Southwest Airlines confirmed that their organizational culture is a primary factor in their business success (Flamholtz& Randle, 2011). The founders of Google and Apple also identified their positive organizational culture as the ultimate source of sustainable competitive advantage (Simoneaux& Stroud, 2014). The study examined the effect of organizational culture on service product innovationand the findings of the study indicate that total organizational culture has a positive and significant effect on service product innovation.

Different studies found that organizational culture and organizational design are the most influential determinants (Mumford, 2000). Organizational culture can affect the innovative attitude in two ways. The socialization process teaches individuals how to behave and act toward one another. Moreover, the organization's structure, policy system, procedure and management orientation can be affected by the basic "values, beliefs and assumptions" (Martins and Terblanche, 2003). Hence, culture can encourage innovation among employees, because it drives them toward accepting innovation as a philosophy of the organization (Hartmann, 2006). Different values of culture were regarded as means to foster innovation. Examples of these cultural values were creativity and initiative (Jamrog et al., 2006), entrepreneurial mindset (McLean, 2005), freedom and autonomy (Ahmed, 1998), risk taking (Wallach, 1983), teamwork (Arad et al., 1997), marketing orientation and flexibility (Martins and Terblanche, 2003). Research has given enough evidence for an existing relationship between organizational culture and innovation (Buschgens et al., 2013; Uzkurt et al., 2013).

The study examined the effect of service product innovation on firm performance and the findings of the study indicate that service product innovation has a positive and significant effect on firm performance.In an effective organizational culture, business managers how employee-focused leadership, sound interpersonal relationship, and ethical decision-making processes (Engelen et al., 2014). Business managers use an effective organizational culture to maintain a positive work environment (Pinho et al., 2014). Effective organization culture is a collection of sub-organizational cultures. Such culture includes healthy customer service, employee-oriented management, strong interpersonal relationship, exemplary leadership, and ethical decision-making process (Childress, 2013). Maintaining an effective organizational culture in the organization is essential to motivate employees (Berg &Wilderom, 2012). Managers with an

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effective organizational culture may improve performance in the organization (Shahzad et al., 2012). In an effective organizational culture, employees share the organization's values and beliefs (Schein, 2010). When employees share the organization's value, they can perform better to achieve the organization's objectives (Denison, 1990). Study findings in the area of organizational culture showed that effective organizational culture includes shared values and common purpose to create a sense of teamwork in the organization (Flamholtz& Randle, 2011).

The study examined the effect of organizational culture on service product innovationand the findings of the study indicate that total organizational culture has a positive and significant effect on service innovation. Members of the organization use an effective organizational culture to develop teamwork and knowledge sharing culture (Wiewiora, Murphy, Trigunarsyah, & Brown, 2014). Schein (2010) indicated that managers with an effect organizational cultureencourage teamwork to improve performance in the organization. Teamwork is an essential factor to achieve common organizational objectives. In an effective organizational culture, business managers and employees work together to improve performance and productivity in the organization (Childress, 2013). Eaton and Kilby (2015) noted that effective organizational culture is important to motivate and retain competent employees in the organization. Business managers with effective organizational culture give priority to excellent customer services (Berg &Wilderom, 2012). In most cases, organizational leadership contains outstanding customer service as part of a mission statement (Denison, 1990). Miguel (2015) indicated that leadership must value good customer service as a source of sustainable competitive advantage.

The study examined the effect of organizational culture on firm performance and the findings of the study indicate that total organizational culture has a positive and significant effect on firm performance Business managers may develop and maintain a positive organizational culture to improve organizational performance and productivity in the organization (Flamholtz& Randle, 2011). Study findings in the area of organizational culture showed that a positive organizational culture as a functional culture in improving performance and productivity in the organization (Childress, 2013). Inabinett and Ballaro (2014) found the existence of a positive relationship between positive organizational culture and firm performance.

The study examined the effect of total quality management on firm performance and the findings of study indicate that total organizational culture has a positive and but significant effect on firm performance. Eaton and Kilby (2015) indicated that business managers use organizational culture to control and moderate the working environment throughout the organization. Hartnell et al. (2011) noted that business managers use an effective organizational culture (a) to shape employee attitudes, (b) to improve operational effectiveness, and (c) to increase financial performance in the organization. Operational effectiveness contains information on how management uses an effective organizational culture to introduce and innovate new products and to improve process and service. Financial performance includes information regarding the achievement of profitability, productivity, and growth in the organization. Effective organizational culture is a combination of strong and positive culture. In a strong culture, the organization members behave in a way consistent with organizational values (Flamholtz& Randle, 2011). In a positive organizational culture, employees share the goals and values of the organization (Flamholtz& Randle, 2012). Business managers may establish an effective organizational culture to improve performance and productivity in the organization (Inabinett&Ballaro, 2014).

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The study considered the mediating effect of service product innovation on the relationship between total quality management and firm performance and the findings of the study indicate that service innovation positively and significantly mediates the relationship between total quality management and firm performance. Moderating effect service product innovation on the relationship between total quality management and firm performance Literature has shown over a sustained period that product innovation has been considered one of the main drivers of value creation. Underpinned by technological change, this value creation stems from 'creative destruction' and the willingness to embrace risk and uncertainty; in effect, it destroys existing value in order to create new, superior value (Schumpeter 2014).

The study finally assessed the mediating effect of service product innovation on the relationship organizational culture and firm performance and the findings indicate that service innovation positively and significantly moderates the relationship between organizational culture and firm performance. Firms get momentum for market leadership and growth by making product improvements and adding new products to their product line (Iansiti, 1995). Product innovation opens new markets to the firm by attracting new customers. Product innovation also open firms in market share growth by adding new customers in the existing markets (Zahra & Nielsen, 2002). The management of successful organizations show more commitment to the development of new product especially in terms of delivering sufficient funding and resources than less successful organizations (Kuczmarski& Associates ,1994). A study from Mercer Management Consulting (1994) reveals that management of high-performance companies is highly committed in the implementation of new product development strategy.

5.1 Conclusions

The study examined the effect of total quality management on service product innovation and the findings of the study establish that total quality management has a positive and significant effect on service product innovation. The findings of this study therefore concluded that total quality management has a positive and significant effect on service product innovation. The study examined the effect of organizational culture on service innovation and the findings of the study statically indicate that total organizational culture has a positive and significant effect on service product innovation. The findings of this study therefore concluded that total organizational culture has a positive and significant effect on service product innovation. The study ascertained the effect of service product innovation on firm performance and the findings of the study statically indicate that service product innovation has a positive and significant effect on firm performance. The findings of this study therefore concluded that service product innovation has a positive and significant effect on firm performance.

The study examined the effect of organizational culture on firm performance and the findings of the study statically indicate that organizational culture has a positive and but insignificant effect on firm performance. The findings of this study therefore concluded that organizational culture has a positive and but insignificant effect on firm performance. The study assessed the effect of total quality management on firm performance and the findings of the study indicate that total quality management has a positive and significant effect on firm performance. The findings of this study therefore concluded that total quality management has a positive and significant effect on firm performance.

The study examined the mediating effect of service product innovation on the relationship between total quality management and firm performance and the findings of the study indicate

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that service product innovation positively and significantly mediates the relationship between total quality management and firm performance. The findings of this study therefore concluded that service product innovation positively and significantly moderates the relationship between total quality management and firm performance. The study finally assessed the mediating effect of service product innovation on the relationship organizational culture and firm performance and the findings study indicate that service product innovation positively and significantly moderates the relationship between organizational culture and firm performance. The findings of this study therefore concluded that service product innovation positively and significantly mediates the relationship between organizational culture and firm performance.

5.2 Theoretical Implication

The study examined the effect of total quality management and organizational culture on firm performance the moderating effect of service product innovation. The Diffusion of Innovation Theory was found to be the best theory of underpinning this study. because Schumpeter discusses that large companies operating in concentrated industries are the main source of innovative activity (Schumpeter, 1934) and characterizes innovation as the engine of economic development that can replace the old with the new, causing significant changes in economic systems (Schumpeter, 1942).

Later, Rogers (1962) elaborates the Diffusion of Innovation Theory, which examines the processes by which innovation is communicated and adopted over time among the participants of a given social system. Rogers identified four main elements that influence and disseminate a new idea: the innovation itself, the communication channels, time and a social system. Another set of explanations for innovation is offered by the Economic Evolutionary Theory, proposed by Nelson and Winter (1982). Their model supports that the behavior of any company is based on a set of learned principles or routines. Evolutionary theories understand innovation as a process dependent on its development through interactions between their various actors and subsequently tested in the market. These theories and market tests largely determine which products are developed and which are successful, there by influencing the future path of economic development. Drucker (1985) characterizes innovation as the tool of entrepreneurs, being how they explore change as an opportunity for a different business or service. For Cooper (1994), innovation and development of new products are the processes themselves and for Kuhlmann (2001), the essential element for innovation are the institutions involved in scientific research, responsible for the accumulation and dissemination of knowledge, the ability to educate and train the working population, develop technology, produce products, develop innovative processes and distribute them.

In the Open Innovation Model proposed by Chesbrough (2003), companies commercialize internal ideas through external channels to generate value for the organization. In other words, it is a set of external knowledge and ideas together with internal research and development, which offers new ways to create value. For the author, the boundary between a company and its environment is flexible, which enables internal and external ideas for the organization to generate innovation for the market. The dynamic of competition in the market and financial resources are two factors that influence innovation processes. The contributions of other people with whom the company maintains contact, such as customers, suppliers and distributors, are crucial in the innovative process (Urbanet al., 1997; Lusch and Nambisan, 2015; Arthur, 2009; Sofka and Grimpe, 2010), whereas the partnership between employees and managers is quoted byOrdanini

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and Parasuraman (2011) as a robust booster of innovation in services that can contribute with volume and radically.

5.3 Managerial Implications

Management in various organizations should note that the appropriate organizational culture alone cannot help them to achieve better organizational performance. There is the need to consider product innovation because with time competition will set in and customers will expect product innovate. Organizations should not rely on their good organizational culture and fail to innovate in their product services. The failure to innovate will cause the declination of the business instead of stabilization. This is therefore calling management of organizations to prioritize innovation in their product service to help them compete well and avert declination.

Management of organizations should also note that total quality management is a strong concept of achieving better organizational performance but there is a strong need to incorporate product innovation service. The ability of an organization to innovate by thinking of reengineering of reducing cost of production and improving on quality and durability is extremely important for organizations to strive and achieve great height among their competitors. Management of organizations should not fail to encourage and welcome innovative ideas that will help them to stand tall among their competitors.

Management of organizations should note that Top management commitment is highly important for them to be able to achieve and maintain total quality management. Management of organizations should be willing to support the dream or the vision of creating and maintain of quality product and services else the organization will struggle to pursue total quality management. Management of organizations are to encourage and commit themselves to help their organizations to achieve and maintain total quality management.

5.4 Recommendations

Top management of organizations should allocate the required resources for quality management to be achieved. Where management will fail to allocate the right required resources needed by the organization, it will be extremely difficult for production and service team to achieve the best quality that they are expecting. Top management ability to release the required resources need for quality will go long way to help the organization achieve the set target with respect to quality and deliver the best product and service to their customers.

The organizations should listen to employees' suggestions on issues regarding quality management. Employees will be comfortable to share and bring new ideas on board if the management of the organization has good listening culture. In a situation that the organization does not welcome and listen to suggestions coming from employees, new ideas will not be shared by employees to help the organization to even recognize where they are falling short and needs urgent amendment or modification to help them to always deliver the best and produce the best as well. It is therefore very important for organizations to create a conducive environment that will encourage employees to freely share and bring new ideas and suggestions on board to help them achieve total quality management.

There must be a clear agreement about the right way and the wrong way to do things in organizations to help the employees to know where there are rewards and punishments as well. Where policies regarding the code of conducts are clearly spelled out, employees will be guided

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to do the right thing and minimize errors that may have a negative influence on the image of the organization achieving best results. This will help firms to reduce cost and improve on good performance to help them achieve best results and deliver no defective product to their customers. Customers enjoying better service and product will then market the organization to their close relatives and friends which will help the firm to achieve good market growth and market share and withstand global competitions.

5.6 Areas for Future Studies

This current considered the moderating effect of service product innovation on the relationship between total quality management and firm performance it is highly recommended that future study can consider the moderating effect of research and development on the relationship between total quality management and firm performance.

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