

UNIVERSITY OF GHANA

**INNOVATION, COMPETITION AND FIRM PERFORMANCE
IN THE SERVICE SECTOR**

BY

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INTEGRI PROCEDAMUS

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DECLARATION

I do hereby declare that this thesis is the result of my own research work and has not been presented either partially or fully by anyone for any academic award in this or any other university. All references used in the work have been duly acknowledged.

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CERTIFICATION

I hereby certify that this thesis was supervised in accordance with procedures laid down by the University.

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ABSTRACT

This thesis focuses on how innovation in firms can be developed and implemented under different conditions to produce long-term benefits for service firms using data from Ghana. Employing different methodological approach and analytical techniques, the thesis provides the following robust findings: first, customer demand, regulatory regime, competitive intensity, organizational culture and leadership determine service innovation propensity in service firms. Second, unlike previous studies that indicate that service innovation is directly related to a firm's performance, it is rather high levels of service innovations that maximize performance in service firms. Third, service innovation, as a strategy will yield maximum output when environmental conditions are aligned to the implementation.

The thesis makes the following contributions to the literature: first, while other studies have been based on firm context, this thesis shows two broad internal firm factors and three key external factors that determine innovation in service firms. Second, this thesis asserts that it is rather high levels of service innovations that maximize financial and non-financial performance in service firms, and not the implementation of such innovations. Third, in order to produce sustainable competitive advantage for service firm, the results show that internal firm conditions such as innovative culture and leadership must be aligned with the innovation strategy to bring about complementarity of strategic assets.

This thesis gives rise to important practical implications. First, managers in the service industry must build innovation orientation through its organizational culture and leadership as such alignment with innovation accrues complementarity advantages. Managers must be mindful of three key stakeholder groups i.e. customers, competitors and regulatory agencies as they largely give legitimacy to the innovation that a firm may create. Secondly, firms must develop and implement service innovations in combination and must be properly aligned with levels of customer demand and competitive intensity. Specifically, in the periods of high competitive intensity, firms must reduce their investments in the interactivity innovations in order to avoid reduction in financial performance.

DEDICATION

This work is dedicated to Dorcas Efua Anning Dorson and Sheridon Akosua Agyeiwaah Anning Dorson for their support throughout this journey.



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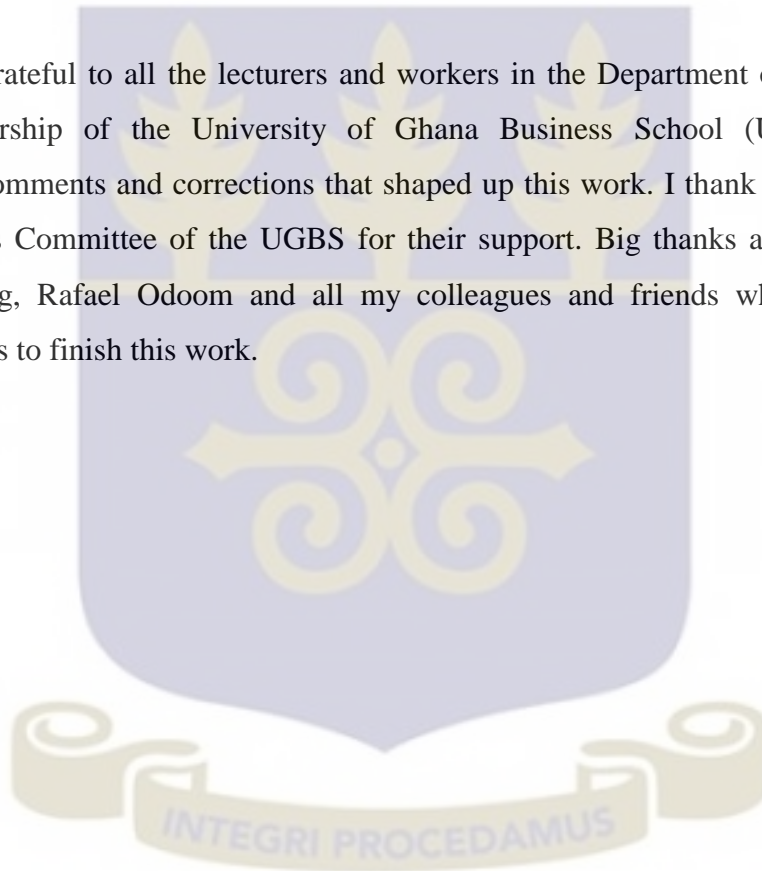


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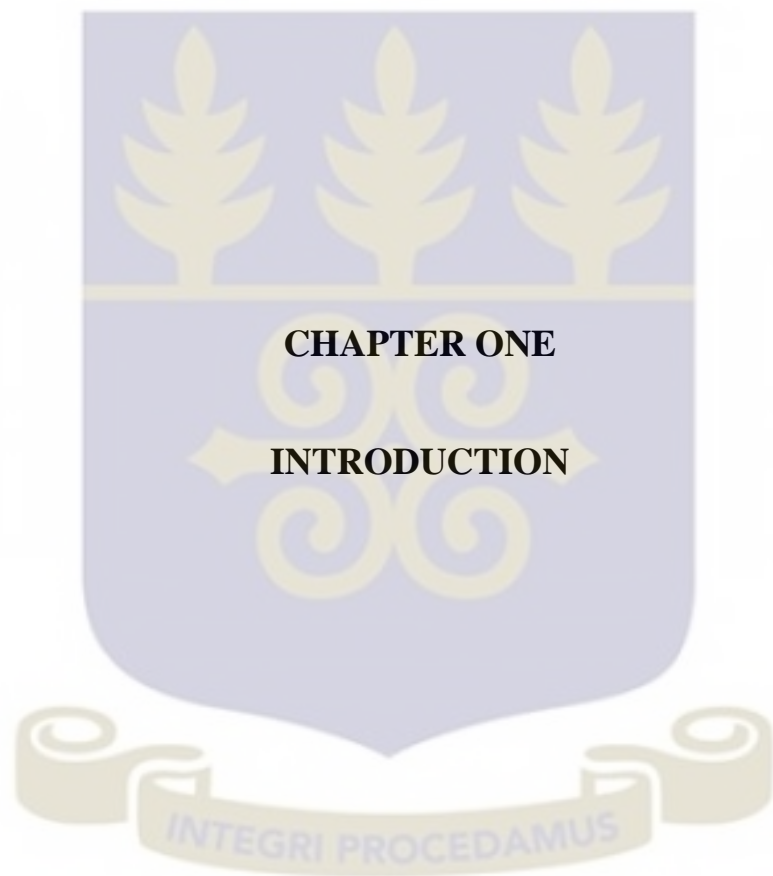
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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND TO THE THESIS

The current business climate is very competitive and has necessitated the emphasis on innovation as the way forward for firms' competitiveness and enhanced performance. De Brentani (2001) suggests that the extent to which products and services yield benefits to firms in terms of business performance has been significantly affected by the innovativeness of the offerings delivered. Innovation therefore becomes a valuable asset to firms that seek to increase performance and remain competitive. In the services sector, Victorino Verma, Plaschka, and Dev (2005) state that the benefit is apparent as innovation enhances service differentiation and induces financial gains. McDermott and Prajogo (2012) support this assertion and posit that innovation in services has led to the greatest level of growth and dynamism in terms of economic activities over the past several years.

Service firms constitute an essential segment of the world economy (Alam, 2011); however, research in the area of service innovation is considered scanty compared to the non-service sector (Goldstein, Johnston, Duffy & Rao, 2002; Menor, Tatikonda & Sampson, 2002; Jaw, Lo & Lin, 2010). The scanty literature on service innovation despite the sector's significant contribution to the world's Gross Domestic Product (GDP) could be attributed to certain difficulties in studying service innovations. The difficulty that researchers may have is the lack of or less direct and observable relationship between service innovation and business performance. McDermott and Prajogo (2012) are of the view that because there is no physical product in service innovations, it is often harder to convey the immediate benefit to consumers and the customer to an innovation may not immediately link any benefit per se. For example, a service offered may have been improved but there is always a difficulty with the

measurement of the improvement. Comparing innovation in services process, Voss, Johnston, Silvestro, Fitzgerald and Brignall (1992) suggest that it may take a little longer for the impact to be felt compared to the physical manufacturing process. It is therefore not surprising that manufacturing firms have been found to draw larger benefits from various aspects of innovation than service firms (Prajogo, 2006). Again, this can be attributed to the fact that service innovation scholars may not have had a more focused discussion on the constituents of the concept (Avlontis, Papastathopoulou & Gounaris, 2001; den Hertog van da Aa & de Jong, 2010; Oke, 2007; Fischer, 2011).

Moreso, Gallouj and Weintin (1997) suggest that the “fuzzy” nature of service outputs brings difficulties in identifying and measuring the innovation, improvement or change. Unlike innovation in manufacturing, observers are at a loss as to where to look for the innovation as no tangible product is associated with service innovation. Indeed the perishable and heterogeneous nature of service makes it fundamentally different from manufacturing and therefore difficult to measure.

Castro, Montoro-Sanchez and Ortiz-De-Urbina-Criado (2011) note that traditionally, services have been defined in a negative sense; once the manufacturing industry has been defined, all the rest belong to the tertiary service sector. It has now come to light that services dominate global economies and economic growth (Bitner, Ostrom & Morgan, 2008; Jaw et al., 2010; McDermott & Prajogo, 2012) and that the lack of studies of innovation in this sector is a great disservice to the world’s economy. Given the above overview, this study aims at contributing to the theoretical understanding of the service innovation construct by delineating its conceptual domain, highlighting its key dimensions and examining its links with other theoretically relevant variables such as

competition and performance. The study also seeks to assess the institutional frameworks and environmental conditions under which service innovations are most effective.

1.2 PROBLEM FORMULATION

A vast majority of innovation studies have focused on technological innovation within manufacturing, reflecting the fact that innovation theory has its roots in a time where manufacturing was the major economic activity (Drejer, 2002). While services have been seen to be generating a lot more to support nations' GDP and have outdistanced manufacturing from an employment perspective (Menor et al., 2002), manufacturing has continued to dominate innovation studies (Jaw et al., 2010; McDermott & Prajogo, 2012).

Studies focusing on service innovation are still in a relatively early development stage, where approaches applying a traditional manufacturing logic to service innovation exist alongside approaches that view services as distinctive activities. The development of an approach that takes the blurring of boundaries between manufacturing and services into account, and thus applies a perspective on innovation that is not restricted to the traditional manufacturing-service dichotomy, is a natural next step. Such a synthesis approach (Coombs & Miles, 2000; Drejer, 2002) to service innovation studies can help bring to the fore aspects of innovation, which have hitherto been neglected in relation to manufacturing innovation, but are in fact very critical to service firms. Since services are distinct, pointing out the features of innovation from the services perspective is important as studies have largely concentrated on the traditional, technological focused manufacturing approaches to innovation.

Companies, governments, and universities around the world have awakened to the realization that services dominate global economies and economic growth (Bitner et al., 2008). Yet in the practical sense, innovation in services is less disciplined and less creative than in the manufacturing and technology sectors (Chesbrough, 2005; Bitner et al., 2008). This is emphasized by recent reviews of academic literature on innovation studies that revealed little explicit coverage of research on service innovation (Kupper, 2001; Hause, Gerard, Tellis, & Griffin, 2006; Jaw et al., 2010). Indeed innovation in services has led to the greatest level of growth and dynamism over the past years in terms of economic activity (McDermott & Prajogo, 2012), however, there is still theoretical confusion on what the determinants of service innovation are. Consequently, service innovation has become an important topic in business competition. Given service innovation's role and the lack of research in this area, a study of this nature is clearly warranted.

Additionally, due to the under-research nature of service innovation amidst its ability to drive competitive advantage, it appears that the very nature and the dimensions of service innovation have received limited attention from either managers or academics. This might have caused the lack of in-depth empirical research into this area and the needed attention from managers and academics. This may be due to the confusion (Bitner et al., 2008; Otero-Neira et al., 2009) as to what constitutes service innovation. Menor et al. (2002) in this regard reckon that there are still key challenges and opportunities in this area that must be thoroughly explored. It is important for a study to draw on existing theories and concepts to develop a framework to deal with the theoretical and conceptual issues. This will allow for proper alignment of the service innovation construct and its relationship with firm performance and competitiveness as

the service sector has been acknowledged as contributing more to nations' growth and development (Alam, 2011).

Lievens and Moenaert (2001) contend that research contributions in the field of service innovation have evolved gradually and are still largely fragmented. For example, some studies (Drew, 1995; Bitner et al., 2008; Otero-Neira et al., 2009; Jaw et al., 2010; McDermott & Projogo, 2012) argue that research on new product development in services has lagged behind similar investigations in the manufacturing sector. Studies in service innovation must be increased to reflect the economic importance services play in economic development on nations and organizations. Service innovation research must identify innovation dimensions and explore relationships between innovation types, management practices and firms' performance outcomes.

Following from the above discussion, this study identifies multiple interrelated research gaps that it attempts to fill. The phrase, "we live in a service economy," has become ubiquitous (Kindstrom & Kowalkowski, 2014); everywhere in the world, the service sector is growing, such that it accounts for 70 percent or more of the gross domestic product (GDP) in countries such as the USA, UK, France, and Germany, even as the manufacturing sector steadily declines (IMD World Competitiveness Yearbook, 2012). In a developing economy such as Ghana, the service sector contributes about half of the GDP (Ghana Statistical Service, 2014) while that of sub-Saharan Africa is more than 50% (IMF Economic Outlook, 2012). Although some attention has been paid to the service innovation construct in recent times, it is believed that innovation in service is still in a relatively early development stage compared with manufacturing and technology (Bitner et al., 2008). The current study adds to the growing stream of

research in service innovation and shows how innovation can enhance competitiveness and performance of service firms.

Secondly, in an attempt to catch up with the pace of the traditional/manufacturing innovation; scholars have looked at different aspects of the service innovation subject with the view to bridging this gap (Flint, Larsson, Gammelgaard & Mentzer, 2005; Oke, 2007; Yusif, 2012; Carlborg, Kindstrom & Kowalkowski, 2014). In spite of the attempts, a major area of service innovation literature that has not received attention is the influencing factors or drivers of innovations in service firms. The very few studies such as Koberg (2003), Koc (2007) and Gungor and Gozlu (2012) have attempted to deal with factors that influence innovation in service firms but have lacked theoretical cohesion and grounding. For scholars to attempt to systematize the service innovation process, it is important to first identify factors that determine the innovation process before further enquiring into the forms and types. Crossnan and Apayding (2010) acknowledge that the field of innovation determinants in terms of theory is fragmented leading to insufficient theorization in spite of the multiplicity nature of the determinants. The current study shows in empirical terms how innovation in service firms is influenced by both internal and external factors in a cohesive and systematic manner by relying on different theoretical strands i.e. institutional theory, strategic innovation paradigm (SIP) of the broader service management theory, and the structure conduct performance paradigm (S-C-P) of the industry organization school to show the determinants of innovation in service firms. By so doing, the current study helps in addressing the theoretical synthesis issue called for by Crossnan and Apayding (2010) in terms of drivers of innovation.

Thirdly, there is apparent confusion on what really constitutes service innovation that has led to it being under researched (Bitner et al., 2008; Otero-Neira et al., 2009). The fragmented nature of service innovation research (Lievens & Moenaert, 2001) has contributed to the lack of understanding in its implementation (McDermott & Projogo, 2012) and discouragement of service firms' involvement in innovation (Voss et al., 1992; Jaw et al., 2010). This may be due to lack of proper delineation of the service innovation concept and theoretical grounding and the right level of analysis (i.e. the firm and not the industry). This has led to lack of focus in empirical research and imposition of practical limitations to the implementation of service innovation as a competitive strategy which has led to what den Hertog et al. (2010) call lack of or a less direct and observable relationship between service innovation and business performance. McDermott and Prajogo (2012) also point out that observers are at a loss as to where to look for the innovation in the management of service firms coupled with its measurement problems. The current study contributes to the service innovation literature by drawing on the dynamic capability view (Teece, Pisano & Shuen, 1997) and the strategic innovation theory (Sundbo, 1997) to enrich our understanding of the development of different service innovations. The study shows how service firms can gain, release, integrate and reconfigure resources and capabilities such as distinct skills, processes, procedures, tools, organizational structures, decision rules, and disciplines (Teece, 2007) to create different levels of innovations. The study makes theoretical contribution by extending the utilization of a firm's capabilities (DCV) and resources (RBV) in the form of innovations to create competitive advantage. The current study does this by building upon studies like Avlonitis et al. (2001) and Bitner et al. (2008) in conceptualizing service innovation as a multidimensional construct to reflect the various aspects of the service firm and to deepen the theoretical understanding of the service innovation

construct. The study develops and tests – in a series of complementary studies – a service-research specific and psychometrically sound measurement instrument for service innovation dimensionalities.

The study further makes theoretical contribution by establishing a relationship between service innovation and performance outcomes (i.e. competitiveness, financial performance and non-financial performance) by arguing that the much emphasized performance benefits of innovation strategy (Li & Atuahene-Gima, 2001; Grawe Chen & Daugherty, 2009; Pantano & Viassone, 2014) are contingent on certain internal firm factors and external variables that either mediate or moderate such a relationship. Innovation and innovative oriented efforts are internal capabilities that can boost the success of a firm in a challenging environment (Otero-Neira et al., 2009). However, the universal performance benefits of innovation as a strategy are in question (Li & Atuahene-Gima, 2001; Grawe, et al., 2009; Pantano & Viassone, 2014), and that it remains unclear as to whether investing in service innovation is appropriate for all service firms all of the time. Although the paybacks for innovation strategies have received attention (see Darroch & McNaughton, 2002; Crossan & Apaydin, 2010), the institutional frameworks and environmental conditions under which they are most effective remain unexplored in the literature. There is the need to clearly delineate the boundary conditions of innovation especially in service firms, to identify when they are least and most effective as a management tool, and to determine the extent to which their effectiveness is conditioned by internal and external factors.

Finally, the study is conducted in the context of an emerging economy. The study sees a contextual gap in the literature as empirical tests of potential business outcomes of

innovation in service firms are heavily biased to data originating in developed nations' settings (e.g. Sundbo, 1997; Grawe et al., 2009; Carlborg, Kindstrom & Kowalkowski, 2014), meaning that the benefits or costs of investing in innovation in less developed societies are unknown. The study sees the lack of research into innovation in service firms in emerging market contexts as telling, since the literature indicates that the beneficial effects of a firm's strategic orientation such as innovation may be context specific as opposed to being universally applicable (e.g. Li & Zhou, 2010). Taking cue from the contextual disparities of developing contexts, the study presents a modified theory of the likely service firm's performance outcomes of service innovation in a lower-middle income economy such as Ghana.

1.3 AIM, OBJECTIVES AND RESEARCH QUESTIONS

The main aim of this study is to assess how innovation in service firms can be developed and implemented under different conditions to produce long term benefits for service firms. In particular, the study seeks to:

- a. analyze the determinants of service innovation;
- b. examine the dimensions of service innovation;
- c. analyze the moderating effect of external factors on the relationship between service innovation and the service firm's performance; and
- d. evaluate how culture and leadership of service firms affect the relationship between service innovation and service firm competitiveness.

Based on the above stated objectives, the study seeks to answer the following research questions;

- i. What are the determinants of service innovation?
- ii. What are the dimensions of service innovation?
- iii. What is the moderating effect of external factors such as competitive intensity and customer demand on service innovation and a service firm's performance relationship?
- iv. How do culture and leadership of service firms mediate the relationship between service innovation and service firm competitiveness?

1.4 THE STUDY'S CONTEXT

1.4.1 Service Defined

Services are deemed to cover a wide range of different and complex set of activities and are seen as a major contributor to the world's economic output (Jaw, Lo & Lin, 2010). Lovelock and Wirtz (2007) defined services as "economic activities offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients themselves or in objects or other assets for which purchasers have responsibility". In exchange for their money, time, and effort, service customers expect to obtain value from access to goods; labour, professional skills, facilities, networks and systems, but do not normally take ownership of any of the physical elements involved (Lovelock & Wirtz, 2007). Hinson (2006) defined service as "an activity or series of activities of more or less intangible nature that normally take place in interactions between the customer and the service employee or system of the provider, which are provided as solutions to customer needs or problems" (pp. 1). Zeithmal, Parasuraman & Malhotra (2002) on their part defined services as deeds, processes, and performances

provided or coproduced by one entity or person for another entity or person. These definitions clearly show that services are dissimilar to physical products especially because of some unique characteristics.

Scholars such as Hinson (2006), Lovelock and Wirtz (2007), and Zeithmal et al. (2002) explain key characteristics of service as intangibility, inseparability, perishability and variability to distinguish it from a physical product. In terms of tangibility, services are often visualised or experienced only when it is being performed which poses understanding difficulty, increasing risk aversion of customers. The tangibility feature also makes it difficult for producers to effectively communicate the beneficial effects of their service offerings (Lovelock and Wirtz, 2007). Inseparability is another feature that explains the difficulty in separating the service provider from the service and the concurrent participation of clients in the service production and consumption process. For effective service delivery, maximum cooperation of clients is required and Lovelock and Wirtz (2007) advocate a strong provider/client link to avoid service failures. Another characteristic is perishability which explains the fact that the inability to deliver a service at the right time results in the loss of that particular opportunity at that point in time (Zeithmal et al., 2006). Hinson (2006) explains that service cannot be inventoried and that it cannot be stored and used at a later date. Although information technology has made it possible to sometimes store certain services, not all services can be stored and those stored services might not be as impactful as the provider intends. An example is a podcast of a news item that does not make the news timely and relevant as it was intended by the broadcaster. The last feature is the variability in service delivered. Variability of services indicates that services are not always performed the same at all times (Lovelock & Wirtz, 2007). This shows that two or more services of the same kind

performed at different times are most likely to produce different outputs. This is even apparent in sales involving different personnel as the differences in individual skills and capabilities among members of the sales team will affect individual service output (Hinson, 2006).

1.4.2 The World's Service Economy

In recent years the production and consumption of services has been very important in both developed and developing economies. The so-called tertiary sector accounts for a large part of their GDP and its employees make up a large percentage of the labor force; the share of GDP in Europe for instance, due to services, rose from 52.2% to 70% between 1970 and 2000 (Forlani, 2010). This growth does not depend only on changes in consumers' preferences toward service goods; manufacturing firms also use an increasing share of services as inputs to their production process. As the WTO has stated "it is impossible for any country to prosper today under the burden of an inefficient and expensive services infrastructure. Producers and exporters of textiles, tomatoes or any other product will not be competitive without access to efficient banking, insurance, accountancy, telecoms and transport systems.... The benefits of services liberalization extend far beyond the service industries themselves; they are felt through their effects on all other economic activities [...]" (WTO-GATS Fact Book (2005)). The traditional sectors, such as machinery, equipment or textiles, use services to organize production, sell their output and manage their financial activities: transport, banking, retailing, energy and telecommunications provide inputs which are fundamental for firms' life cycles.

There are different types of service industries. Broadly, the service industry classification in most economies includes (but is not exhaustive): health care; professional services; financial services; hospitality; travel and others (Lovelock & Wirtz, 2007). Hospitals, medical practice, dentistry, and eye care are some service types that characterise the healthcare sector. Professional services entails consultancy in areas such as marketing, accounting, legal and architecture. Banking, investment advising and insurance are some of the key sectors of the financial services. The hospitality sector comprises restaurant services, hotel, and bed and breakfast. The airlines, travel agencies and theme parks are some of the major travel services available. Hair styling, pest control, plumbing, lawn maintenance, counselling services and health club are illustrations of other services.

1.4.3 Ghana's Services Sector

In the past few years, Ghana has emerged as a country with one of the highest GDP per capita in Africa and was one of the top ten fastest growing economies in the world (Wikipedia, 2013). In 2011 for example, Ghana was adjudged the fastest growing economy in the world (World Bank Report, 2013). Ghana in recent years has experience appreciable growth in its economy. Between the year 2000 and 2008 GDP growth rates have continuously increased from 3.7 to 7.3 percent (World Bank, 2013). After a fall in growth in GDP in the year 2009, the economy picked up in 2010 and grew in real terms by 7.7% and, in 2011, real GDP was estimated to have increased sharply reaching a peak of about 14.2% growth in GDP (World Bank, 2013) aided by oil revenues and strong export performance of cocoa and gold in volume and prices and a more robust service sector (ADB and ADF, 2012; World Bank 2013).

This promising growth trend has been accompanied by a marked reduction in poverty. Ghana is currently classified as reaching a middle-income status (World Bank, 2013) however, its development indicators compare poorly with those of most countries in the middle-income category (African Economic Outlook, 2013). According to the World Bank (2013), Ghana continues to show good performance on democratic governance, arising from strong multi-party political system, growing media pluralism and strong civil society activism. The country as compared to other African countries enjoys a relatively favorable political context as indicated by the Mo Ibrahim Foundation on African Governance which ranked the country 7th out of 53 African countries (ILO, 2012; ADB & ADF, 2012).

Ghana in recent years has been active in improving the country's business environment and has been both in 2009 and 2010 ranked, amongst the top 10 reformers globally by the World Bank's Doing Business team (ADB & ADF, 2012). Furthermore, ADB and ADF (2012) state that, according to the Africa Business Panel survey released in June 2011, Ghana was rated as the 4th best destination in Africa (after South Africa, Nigeria, and Kenya) for investment by international investors. Also, Ghana was ranked the 7th largest recipient of FDI in Africa and the 3rd largest in Sub-Saharan Africa at the end of 2010, according to the United Nations Conference on Trade and Development's World Investment Report 2011.

Ghana's economy has been strengthened by a long period of relatively sound management, a competitive business environment, and sustained reductions in poverty levels. In late 2010, Ghana was re-categorized as a lower middle-income country. Ghana is well endowed with natural resources and agriculture accounts for roughly one-quarter

of GDP and employs more than half of the workforce, mainly small landholders. Ghana has experienced growth in the private sector with much growth in the service subsector. The services sector contributed 48.1% as its share to GDP, overtaking agriculture as the largest contributor to GDP in 2011 (Alabi, Alabi & Mohammed, 2011) but has now past the half mark in 2014 first quarter (Ghana Statistical Service (GSS), 2014). Ghana's growing services sub-sector (finance/banking, tourism, education and telecoms), accounts for about 29% of formal employment within industry, including mining and other extractive/processing activities which account for between 10-14% of employment (Dashwood & Pupilampu, 2010). The provisional figures from the GSS show that the service sector accounts for 50.8% (oil inclusive) and 53.4% (non-oil) in GDP distribution.

The service sector of Ghana is categorized by the GSS as being made up of trade; repair of vehicles; household goods; hotels and restaurants; transport and storage; information and communication; financial and insurance activities; real estate; professional; administrative and support service activities; public administration and defense; social security; education; health and social work; and community, social and personal service activities. Over a decade ago, Yavas, Bilgin and Shemwell (1997) observed that the service sector in many developing countries was undergoing changes in order to keep up with world trends. It therefore comes as no surprise that within the last few years, the banking, telecommunication, media, hospitality and insurance sectors for example have seen some tremendous developments in Ghana, and that a lot of new players have entered into the Ghanaian market. The consequence of these reforms in the service sector, coupled with political and economic stability, consistency in implementing political and economic policies, have led to the emergence of diverse types of service

institutions in Ghana over the last decade (Owusu-Frimpong, 2008; Narteh & Owusu-Frimpong, 2011). Firms within this sector are jockeying for positions to attract customers and improve their performance and have therefore resorted to various innovations as the way forward. This study is interested in finding out how, in the face of competition, firms innovate to improve their performance and competitiveness in the service sector.

After services have been seen to generating a lot more to nations' GDP and have outdistanced manufacturing from an employment perspective (Menor et al., 2002), manufacturing has continued to dominate innovation studies (Jaw et al., 2010; McDermott & Prajogo, 2012). The economic environment has undergone massive changes in recent times that can be attributed to the advancement in communication and technology that has made information the mainstay in economic activities. Camacho and Rodriguez (2005) note that such modifications in the economic environment have brought about the emergence of a knowledge-based economy, where knowledge, more than ever, has become the key input to business success. Camacho and Rodriguez (2005) further posit that the innovative aspect of service has been affected by the new position it occupies in the new economic context. The emergence of the Service-Dominant (S-D) Logic (Vargo & Lusch, 2004; Woodruff & Flint, 2006) has come to stress the importance of service as the foundation for marketing and exchange that has led to a shift in the economic paradigm. It is in this evolving context that the service sector has been altered and shifted from the "darkest site" (Gallouj, 2002) to turn into "center of attention of a great number of analyses" (Camacho & Rodriguez, 2005). This has required refocusing the study of innovation to reflect the economic shift and change in the marketplace as regards service being the basis for economic exchange.

Based on the above discussions, the context of this study constitutes all service firms in the Ghanaian economy but with particular focus on banking, insurance, professional services (consultancy), hospitality, retailing, media and communications. These classifications of service firms are used due to the fact that a reliable database on them could be accessed while the other sets of services lacked reliable database.

1.5 SIGNIFICANCE OF STUDY

This study is significant in many respects as it contributes to both industrial and theoretical developments. The study develops a comprehensive model for competitive service innovation that is a new research field as contribute to the literature on service innovation. The uniqueness further comes from the fact that this is a service innovation empirical research from a lower middle-income sub-Saharan African economy's perspective.

This study deepens the discussions on service innovation in both theoretical and empirical terms. The theoretical analysis contributes to the clarification of the concept of service innovation; classification on the dimension of service innovation; and how service innovation can be engendered within a service firm. In order to analyze how service innovations are created, the study defines the phenomena of service innovation to reflect the context of service that has not received adequate attention in the literature. The background theories and concepts applied are multi-disciplinary and include the general service concept; the service management theory; the concept of the service marketing mix; the dynamic capability view; general innovation theories; and theories linked specifically to service innovation and its management. The empirical part of this study tests the dimensions of service innovation in the services sector and their

relationship with service firm competitiveness and performance in the context of the Ghanaian services sector. This is done to bring to the fore how service firms can maximize the performance benefits of service innovation under different conditions.

The study provides insights on how service firms can develop competitive innovations that will yield long-term benefits. As a way of differentiation, service firms in Ghana and in other middle-income economies with similar economic characteristics can draw on the findings of this study to develop the innovation management system that enhances competitiveness and greater service value delivery.

1.6 STRUCTURE OF THESIS

This is a paper-based thesis. Chapter one introduces the subject of the thesis - service innovation, competition and firm performance in the service sector of an emerging economy. The chapter argues that services now dominate the world's economy and therefore must reflect in the research output in the area of innovation. The chapter acknowledges the challenges associated with innovation in service and argues that approaching the subject with the right theoretical framework will enable proper delineation of the conceptual domain which will allow for better understanding of how it can improve firms' competitiveness and performance. The chapter proposes a framework that explains the conditions under which service innovation can thrive and elicit required performance outcomes.

Chapter Two discusses the methodological issues used in the thesis. The chapter discusses the research design – the glue that holds all the elements in the research project together – and argues why specific choices are made in terms of philosophy, approach,

purpose, strategy and data collection methods. The chapter explains further the choice of a quantitative method of data collection and how the questionnaire was designed in accordance with best practices to elicit the required responses.

Chapter Three theoretically and empirically shows how innovation in service firms is influenced in a systematic manner. It takes a step forward towards effectively measuring key factors that facilitate or impede the development of innovation in service firms and helps in addressing the theoretical synthesis issue called for in the literature to account for the multiple dimensions of innovation determinants in service firms. The chapter follows recommended scale development processes and explores a series of data collected from service managers in two stages for exploratory and confirmatory factor analysis. This chapter shows in a systematic manner how innovation in service firms is influenced by both internal and external factors. The findings support our five-factor model hypothesized and find competitive intensity, customer demand, innovation leadership and innovative culture positively relating to service firms' innovativeness while regulatory regime related negatively. While other studies have been based on firm context only, this chapter shows two broad internal firm factors that capture the entire firm operations and three key external stakeholders' determinants of innovation development and implementation in service firm.

Chapter Four seeks to make contribution to the service innovation literature by showing how the performance effect of interactivity innovation can be maximize in the face of environmental conditions. Data is collected at two levels; the first for validation and the second for structural analysis. SEM is used in analyzing the relationship between interactivity innovation and service firm performance and environmental moderating

effects. The study found that deployment of high levels of interactivity innovations in a period when customer demand is high is significantly related with high performance and the relationship between high innovation and financial performance is dampened in the period of high competitive intensity. Unlike previous studies, our study found that it is rather high levels of service innovations that maximize performance in service firms and not just the implementation of such innovations and that the implementation must be aligned to the prevailing environmental conditions.

Chapter Five focuses marking out the institutional limits and conditions within which innovation is the most useful management tool and to establish the extent to which innovative culture and leadership of the service firm condition its efficacy. This chapter makes contribution to the service innovation literature by showing the internal boundary conditions under which service innovation can effectively enhance the competitiveness of the service firm. Innovation leadership is found to be partially mediating the relationship between the service innovations and a service firm's competitiveness. Innovative culture also mediates the service innovations and competitiveness. In contrast to previous studies that examined the direct effect of innovation on competitiveness, this chapter finds that the mediating role of internal conditions brings about complementarity of strategic assets that produces sustainable competitive advantage to the service firm.

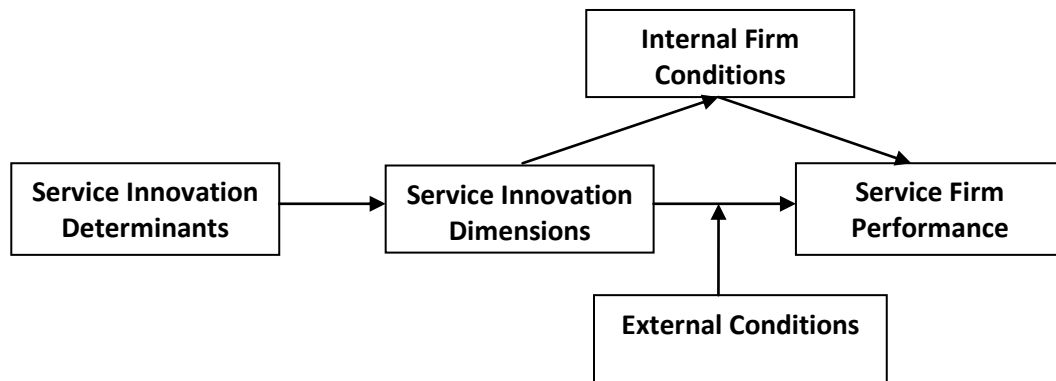
Chapter Six concludes the thesis. The chapter recaps all the issues discussed in the thesis in a form of a summary and provides conclusions along the line of the research questions and objectives. The chapter discusses the implications of the findings of the study in the area of policy, strategy and research for firms in emerging economies. The chapter also

sets out an agenda for future research direction in the area of service innovation and how it can improve performance outcomes.

1.7 THEORETICAL FOUNDATION AND FRAMEWORK

To understand service innovation and its relationship with competitiveness and performance, the study views the phenomenon from the Structure-Conduct-Performance (S-C-P) paradigm of the broader Industrial Organizational School. This paradigm asserts that the performance (P) of a firm is determined by its conduct (C) or behavior. The S-C-P paradigm postulates that the firm will behave (conduct) in a way that is influenced by the structure (S) within which it functions. The structure represents the operating environment i.e. internal and external environments within which the firm operates (Thakur & Hale, 2013). The conducts are the actions and strategies the firm undertakes to create value for both customers and the firm. These conducts then produce performance levels which determine the success or otherwise of the firm.

This study postulates that the service firms' competitiveness, financial, and non-financial performance are influenced by the firm's conduct in terms of service innovation that is a strategic pursuit (Lee, 2007). This strategic pursuit is influenced by structural factors that come as external (outside of the service firm's control) and internal (with the service firm's control) factors.

Figure 1.1: Research Framework

Source: Author's own conceptualization

1.7.1 Service Innovation Determinants

The proponents of the S-C-P asserted that decisions of the firm are influenced by both the internal organization of the firm and external market structure (Mason, 1939; Bain, 1951). It is argued that the market structure could be multidimensional and that the factors will be dependent on the industry (Bain, 1951). In explaining the structure aspect of the study's framework, the strategic innovation paradigm gives insight into how structure influences conduct in innovation development. Sundbo (1997) explained in his strategic innovation paradigm that the market largely drives innovations and they are a strategically determined process for a service firm.

The strategic innovation paradigm which is considered as an important foundation for service management theory (Sundbo, 1997; Thakur & Hale, 2013) posits that service firms are market driven and that the conduct of service firms are based on the market situation. This market situation is reflected in the form of customer demand, competitive intensity and regulatory regimes (Sundbo, 1997; de Brentani, 2001; Thakur & Hale, 2013) that the service firm faces. These serve as the external factors for service innovation development and implementation.

The internal factors that exert influence on the firm's strategy (service innovation) are the internal organizational arrangements and the relationships among the various parts of the firm as innovation is deemed to emanate from all parts of the firm (Sundbo, 1997). The support lent by arrangement of parts and group relationships within the firm could be better explained by the organizational culture theory. The organizational culture theory suggests that the collective behavior of humans who are part of an organization creates the meanings that people attach to their actions (Cakar & Erturk, 2010). Organizational culture influences the way people and groups interact with each other which affect their strategic choices and the attitude of individuals towards strategy implementation. Organizational culture is also the pattern of such collective behaviors and assumptions that are taught to new organizational members as a way of perceiving, and even thinking and feeling (Twati & Gammack, 2006). Organizational culture therefore creates the fundamental service philosophy of the service firm that eventually determines the tolerance for, the development of, and implementation of competitive service innovation. A service firm that is high on innovation culture creates an environment that encourages autonomy and calculated risk taking (Crossan & Apaydin, 2010) which are precursors of successful strategy implementation (Sundbo, 1997).

Although organizational culture explains the service firm's ability to create a constellation of events and steps among its functional areas, it is leaders who create and drive the innovative culture (Crossan & Apaydin, 2010). Organizational innovation leadership influences the service philosophy of continuous search for novelty in value creation. Leadership influence on service innovation behavior can be explained by the upper echelon theory. The upper echelon theory states that organizational outcomes,

strategic choices and performance levels are partially predicted by top managerial conduct and background characteristics (Hambrick & Mason, 1984). Hambrick (2007) posits that if we want to understand why organizations do the things they do, or why they perform the way they do, we must consider the biases and dispositions of their most powerful actors—their top executives; as top management teams in a firm have substantial discretion in determining the future strategic contour of the firm (Child, 1972). Other studies have suggested that business leaders explain about 5–20 per cent of variance in company profitability (Crossland & Hambrick, 2007; Crossan & Apaydin, 2010). Not only is their support and guidance vital in promoting innovative efforts across different functional areas as it contributes to effective interactions among group members (West, Borrill, Dawson, Brodbeck, Shapiro & Haward, 2003); but also equally important is their ability to create conditions for the subsequent implementation of innovation (Mumford & Licuanan, 2004). Leaders create a learning environment by providing support for experimentation (Damanpour, 1991; Damanpour & Gopalakrishnan 2001); being tolerant of failed ideas (Madjar, Oldham & Pratt, 2002); by adopting risk-taking norms (King, 2000); supporting learning and development of employees; and fostering the acceptance of diversity within the group (Crossan & Hulland, 2002) all to enhance the competitiveness of the firm.

1.7.2 Service Innovation Dimensions

In the S-C-P paradigm, conduct refers to the firm's behavior (Lee, 2007); and the behavior of the firm is expressed in the strategic choices to achieve competitiveness and higher performance. This study posits that service firms can pursue a service innovation that is a form of organizational conduct (strategy) to influence their market position and overall performance. Given that innovation is a strategically determined process for

service firms (Sundbo, 1997) targeted at newness; a choice of change-oriented theoretical perspective that deals with the creation of new value streams is considered important. The dynamic capability view from the broader resource and capability school offers a new perspective from which to approach service innovation (Carlborg et al., 2014). Salunke, Weerawardena and McColl-Kennedy (2011) posit that dynamic capabilities are the antecedent organizational and strategic routines by which managers alter their resource base - acquire and shed resources, integrate them together, and recombine them - to generate new value-creating strategies (Grant, 1996), which essentially is an act of innovation (Porter, 1990). Service innovation can be best conceptualized through the dynamic capability view (Eisenhardt & Martin, 2000) as it posits that different resource bases among firms provide the source of variation for innovations (Crossan & Apaydin, 2010).

The original definition of dynamic capabilities is that they are routines within the firm's managerial and organizational processes that aim to gain, release, integrate and reconfigure resources (Teece et al., 1997) and is therefore change oriented (Zollo & Winter, 2002; Winter, 2003). The dynamic capabilities do not only seek to adapt a firm's resource base to evolving customer demands and market trends, such as an increased demand for services, but also allows firms to shape their environment through innovation (Teece, 2007). Dynamic capabilities are defined in this study as the capacity of the service firm to purposefully create, extend or modify resources, capabilities and/or routines to pursue improved efficiency and effectiveness and achieve competitiveness and higher overall firm performance. By adopting the dynamic capabilities theory to service innovation, this study contributes to how resources are developed, integrated

within the service firm and released and reconfigured in terms of innovations which have been under-explored in the literature (Eisenhardt & Martin, 2000).

The focus of change in the dynamic capabilities perspective allows firms to deal with continuous changes in the business environment and competitive landscape (Winter, 2003) that may render resources possession a non-competitive option. Possession of a unique bundle of resources alone does not create a sustainable competitive advantage over time. It is the firm's ability to create, extend and modify valuable resources and capabilities over time that create a sustainable competitive advantage (Helfat, Finkelstein, Mitchell, Peteraf, Singh, Teece & Winter, 2007) which is at the center of the dynamic capability perspective. Underpinning these dynamic capabilities are micro-foundations that are defined as distinct skills, processes, procedures, tools, organizational structures, decision rules, and disciplines (Teece, 2007).

The service firm has assets, processes, skills, procedures, systems, tools and knowledge that enable it to develop and implement strategies (service innovation) to improve efficiency and effectiveness (Barney, 1991; Grawe et al., 2009). The service firm can build service innovations through its service mix that represents its basic competitive tools. It is therefore imperative to first look for service innovation in the ingredients that the service firm competes with on the market i.e. the service mix. Additionally, the service firm-customer interaction presents an avenue to create valuable, rare, inimitable and non-substitutable innovations that are at the center of firm competitiveness. The interactions which enable co-creation of value for the customer represent a key conduit for service innovation as the firm gets an opportunity to impress its target audiences who are being offered alternatives from competitors. Lastly, the service firm can activate its

external capabilities through market innovations. The market innovations are expressed through sensing and reacting to market opportunities and threats better than the competition. In this study, there is not much focus on market innovation in terms of empirical works as substantial attention has been given to it in the literature (see Sundbo, 1999; Avlontis et al., 2001).

1.7.3 Service Firm Performance

Overall service firm performance in the framework relates to the measure of success of the service firm which comes in the form of firm's competitiveness relative to other competing firms in the industry, the financial and the non-financial achievements. According to management scholars, innovation capability is the most important determinant of overall firm performance (Crossan & Apaydin, 2010). Innovation is considered to be a necessary strategic ingredient for firms simply wanting to remain competitive (Darroch & McNaughton, 2002) and to improve performance (Li & Atuahene-Gima, 2001). Scholars argue that innovation is paramount in a modern environment characterized by hypercompetition (D'Aveni, 1994; Otero-Neira et al., 2009; Grawe, et al., 2009) and intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). The performance (and even the survival) of firms depends more than ever on their ability to achieve a solid and competitive position and on their flexibility, adaptability and responsiveness (Atuahene-Gima, 2005).

Innovation has been empirically linked with superior performance (Crossnan & Apaydin, 2010), and as Cooper and de Brentani (1991) have argued, highly innovative new products would lead to superior performance. In service innovation, it is even more

profound as firms have elected to compete on the basis of service innovation rather than on physical products which Kandampully and Duddy (1999) see as a testimony to the service innovation's capability to build competitive advantage. Service innovation has been linked to the creation of customer value – a highly competitive feature – that is a customer's perceived preference for a product's attributes, performances, and consequences of use (Woodruff, 1997). It is suggested that an organization's propensity to innovate is a type of dynamic capability that contributes to competitive advantage development (Helfat et al., 2007), which improved organizations' fortunes.

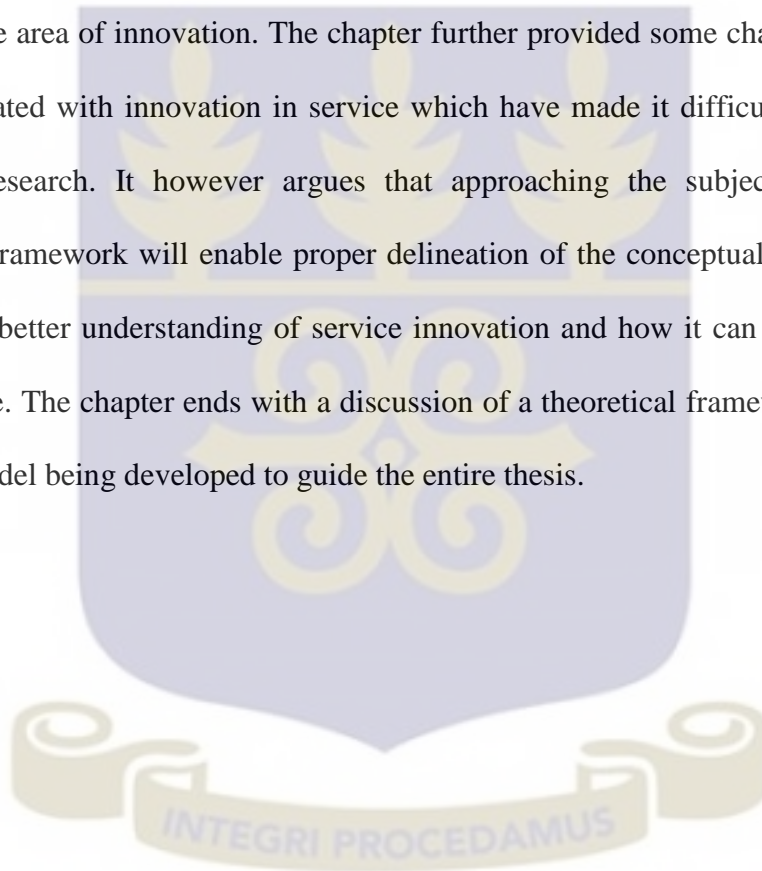
1.7.4 Internal and External Conditions

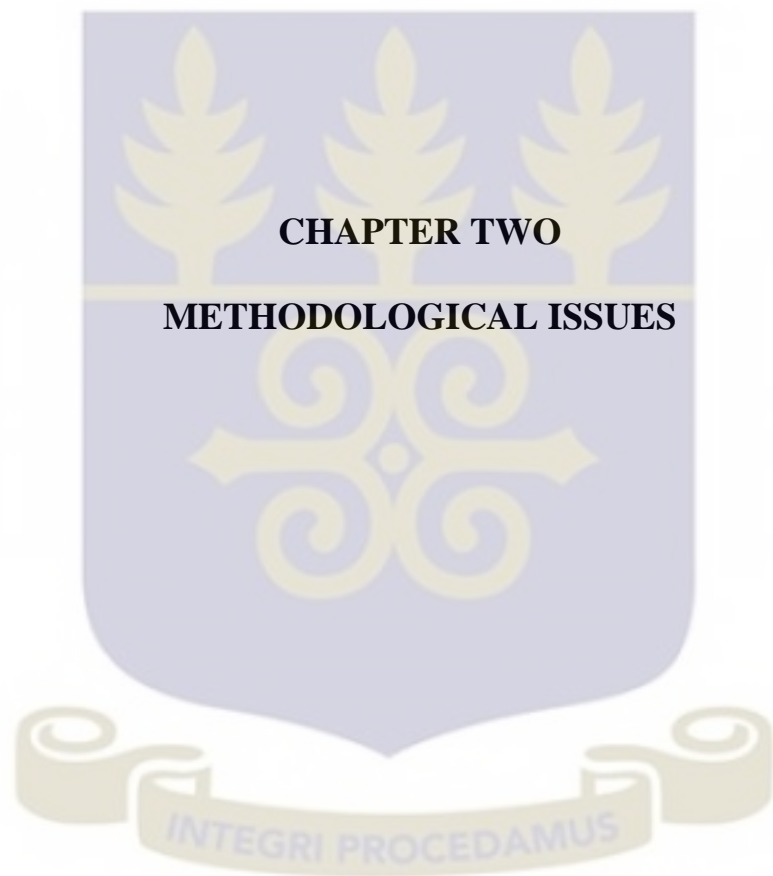
Although the beneficial effects of service innovation may not be in question, there may be boundary conditional effects of a firm's service innovation and performance relationship. This study postulates that the level of performance outcome of service innovation may be contingent on certain moderating and mediating variables that may be within or outside of the firm. These boundary conditions may challenge the success of firms investing in service innovation. The study therefore mediates the relationship between service innovation and performance outcomes by internal institutional conditions. The cultural and leadership orientation (internal conditions) of service firms will determine whether service innovation as a strategic option will yield the needed performance outcome. The study further postulates that innovation in service firms can be least or most effective depending on the external factors that may be moderating its relationship with performance outcome. Innovation and innovative oriented efforts are internal capabilities that can boost the success of a firm in a challenging environment (Otero-Neira et al., 2009). However, boundary conditions such as customer demand and

competitive intensity may determine when the implementation of innovation is least and most effective management tool, especially in service firms.

1.8 CHAPTER SUMMARY

This chapter has given a vivid introduction to this thesis titled “Service Innovation, Competition and Firm Performance in the Service Sector”. The chapter argues that services now dominate the world’s economy and therefore must reflect in the research output in the area of innovation. The chapter further provided some challenges that have been associated with innovation in service which have made it difficult for meaningful empirical research. It however argues that approaching the subject with the right theoretical framework will enable proper delineation of the conceptual domain and will allow for a better understanding of service innovation and how it can improve a firm’s performance. The chapter ends with a discussion of a theoretical framework that led to a research model being developed to guide the entire thesis.





2.1 INTRODUCTION

This chapter deals with the methodological issues of the study; thus, the chapter explains the research design. Arguments are made for specific choices made in terms of philosophy, approach, purpose, strategy and data collection methods. This chapter explains the choice of quantitative method of data collection and how questionnaire was design in accordance with best practices to elicit the required response.

In conducting a research of this nature, the “how” is an important aspect of the success of the research. How research is conducted is as essential as what will be identified from the research project. The how describes the methodology which is sometimes referred to as research design. Designing an appropriate research strategy forms the foundation of a successful research. The design is formed by different layers of process, approaches and philosophies. Research design can be thought of as the *structure* of research – it is the "glue" that holds all of the elements in a research project together. A design is used to structure the research, to show how all of the major parts of the research project – the samples or groups, measures, treatments or programs, and methods of assignment – work together to try to address the central research questions. This chapter discusses the research paradigm (underlying beliefs), approach, purpose, strategy, method of data collection and analysis technique used in this study.

2.2 RESEARCH PARADIGM

Choosing the most suitable research paradigm is the most important initial research design step. This section reviews and evaluates research paradigms to identify the most suitable paradigm for this research. Researchers have defined the concept of the research paradigm in different ways. Deshpande (1983) defined a paradigm as “a set of

assumptions linked together in an investigation of the world, and he also suggested that the aim of a paradigm is to address what problems are worthy of study and what methods are available to investigate them”. Guba (1990) argued that the paradigm is a ‘basic set of beliefs that guides action’.

According to Denzin and Lincoln (2000, p. 18) the researcher “approaches the world with a set of ideas, a framework (theory, ontology) that specifies a set of questions (epistemology) that he or she then examines in specific ways (methodology, analysis).” This set of abstract principles that combines the researcher’s basic beliefs about ontology (“What is the nature of reality?”), epistemology (“What is the relationship between the inquirer and the known?”), and methodology (“How do we know the world, or gain knowledge of it?”) is defined as the *research paradigm* (Denzin & Lincoln, 2000, p. 19.).

Many paradigms are available to guide research. Easterby-Smith, Thorpe and Lowe (1991) suggest two paradigms, namely, positivist and phenomenological. Denzin and Lincoln (2000) suggested qualitative and quantitative paradigms. Some other classifications have also been suggested, such as Parkhe’s (1993) inductive and deductive classifications. Moreover, Guba and Lincoln (1994) identified four major paradigms that consolidate the other paradigms: positivism, constructivism, critical theory and realism. Further, each of these paradigms has three elements relating to reality (ontology); the relationship between reality and the researcher (epistemology); and the techniques (methodology). Guba and Lincoln’s (1994) classification that is corroborated by Saunders, Lewis and Thornhill (2007) was chosen for this research and is discussed below.

2.2.1 Positivism

Positivism assumes resistance to qualitative research, and assumes that “science quantitatively measures independent facts about a single apprehensible reality” (Healy & Perry 2000). Positivist researchers view the world with a ‘one-way mirror’, and the researcher is an undeniable character (Anderson, 1986; Healy & Perry, 2000). Accordingly, positivists separate themselves from the world they study; while researchers in constructivism and critical theory paradigms believe they have to participate in the real world to better understand the investigations (Healy & Perry, 2000). The principal data collection techniques in positivism include experiments and sample surveys that are outcome-oriented (Christie, Rowe, Perry & Chamard, 2000). Christie et al. (2000) stated that the three other paradigms are more suitable for exploring complex social phenomena that require working with people and real-life experiences. In contrast, Healy and Perry (2000) suggested that positivism is not suitable when the research involves humans and their real-life experiences. This is one of the reasons that pure positivism is not suitable for this research.

2.2.2 Constructivism

The constructivist paradigm assumes relativist ontology, a subjectivist epistemology, and a naturalistic set of methodological procedures, as stated by Denzin and Lincoln (2003). Constructivism suggests that “truth is a particular belief system held in a particular context, and it is interested in the values which underpin the findings” (Healy & Perry 2000). Therefore, it is an inductive process. Data collection under the constructivist paradigm depends mainly on the interaction between the researcher and interviewee so that the researcher has to be a ‘passionate participant’ during their field work (Guba & Lincoln 1994). As this research explores the relationship between service innovation and

firm performance, it is impossible to only rely on interviewees' emotions and impressions, and ignore external reality. Therefore, this paradigm is not a suitable one for this research.

2.2.3 Critical Theory

Critical theory is extremely useful to investigate research about social, political, cultural, economic, ethnic and gender values, and therefore, researchers usually need to take a long time to investigate by ethnographic and historical studies (Perry, Riege & Brown, 1999). As suggested by Christie et al. (2000), "critical theory may be the most appropriate paradigm when the study is attempting to intervene in the transformation of the respondents from their mental, emotional and social structure." However, as stated by Guba and Lincoln (1994), critical theory is only suitable for research when the researcher aims to be a 'transformative intellectual' who liberates people from their historical mental, emotional and social structures. Therefore, as this research does not aim to change the current views of the service innovation-firm performance relationship entirely, this paradigm is not a suitable one for this research.

2.2.4 Realism

Realism is the last paradigm of the four research paradigms and it has elements from both positivism and constructivism (Healy & Perry 2000). Realism believes an actual social phenomenon can be ascertained even though it is imperfect (Merriam, 1988; Guba & Lincoln, 1994; Godfrey & Hill, 1995). It is also known as post-positivism (Denzin & Lincoln, 1994) or neo-post positivism (Miles & Huberman, 1994). In contrast to the other two qualitative paradigms (constructivism and critical theory), realism believes that

perception is not a reality, but ‘a perception for realists is a window on to reality from which a picture of reality can be triangulated with other perceptions’ (Perry et al., 1999). Saunders et al. (2007) posit that the realist position that the social world is constantly changing is much more in line with the purpose of business and management research.

From the foregoing discussions, it can be seen that the realism paradigm is the most suitable for this research. As with pure positivism, the realism paradigm investigates a ‘real world’. However, realism argues that reality can only be imperfectly and probabilistically apprehensible, because of a researcher’s limited capacity and resources. This research investigates real-life phenomena, and the researcher will not have full control of the research environment. Therefore, this paradigm is reasonable for this research.

2.3 RESEARCH APPROACH (deductive and inductive)

Research will involve the use of theory that may be made explicit in the design of the research or may not although it will usually be made explicit in the presentation of findings and conclusions (Saunders et al., 2007). The extent to which the researcher is clear about theory at the beginning of the research raises an important question concerning the design of the research project. Saunders et al. (2007) assert that it is whether the research should use the deductive approach or the inductive approach. Further discussions are done on the two approaches to assess their suitability in different research projects and the justification for a specific choice for this study.

2.3.1 Inductive Approach

Inductive reasoning is a theory building process, starting with observations of specific instances, and seeking to establish generalisations about the phenomenon under investigation (Hyde, 2000). The inductive approach uses data collected to develop theory based on analysis of that data. In the inductive approach the data is collected and theory is developed as a result of data analysis.

Inductive reasoning works moving from specific observations to broader generalizations and theories. Informally, it is sometimes called a "bottom up" approach (Saunders, et al., 2007). In inductive reasoning, research begins with specific observations and measures that begin to detect patterns and regularities, formulate some tentative hypotheses that can be explored, and finally end up developing some general conclusions or theories.

2.3.2 Deductive Approach

Cooper and Schindler (2006) explain that the deductive approach deals with the development of theory and hypotheses by designing a research strategy to test it. In a deductive research approach a theory and hypothesis (or hypotheses) are developed and a research strategy is then designed to test the hypothesis (Saunders et al., 2007). The purist hypothetico-deductive perspective "...emphasizes universal laws of cause and effect on an explanatory framework which assumes a realist ontology; that is, that reality consists of a world of objectively defined facts" (Henwood & Pidgeon, 1993, pp 15). In the deductivist tradition the researcher starts "...with an abstract, logical relationship among concepts then move towards concrete empirical evidence", (Neuman, 1997, pp 46). Thus in deductivist research there is a well-established role for existing theory since it informs the development of hypotheses, the choice of variables, and the resultant

measures which researchers intend to use. Within this approach the researcher formulates a particular theoretical framework and then sets about testing it. Deductive reasoning is narrower in nature and is concerned with testing or confirming hypotheses (Saunders et al., 2007).

Table 2.1: The *Usual* Differences between Inductive and Deductive Approach to Research

Deductive Approach	Inductive Approach
1. Develop theoretical framework	1. Area of enquiry identified – but no theoretical framework
2. Variables identified for relevant constructs	2. Respondents identify constructs and explain the relationship between them
3. Instrument development	3. Broad themes for discussion identified
4. Respondents give answers to specific questions	4. Respondents discuss general themes of interest
5. Answers analyzed in terms of prior theoretical framework	5. Researcher develops theory on a purely inductive basis
6. Outcome: Theory tested according to whether hypotheses are accepted or rejected	6. Outcome: Theory developed
7. Concepts <i>usually</i> associated with quantitative method	7. Concepts <i>usually</i> associated with qualitative method
8. Objectivity	8. Subjectivity
9. Causation	9. Meaning
10. Pre-specified questions	10. Open-ended questions
11. Outcome-oriented	11. Process-oriented
12. Numerical estimation	12. Narrative description
13. Statistical inference	13. Constant comparison

Source: *from literature review*

The term “usual” is meant to remind readers that these distinctions are not entirely discrete. In fact, there is a spectrum of research that encompasses both approaches that, in turn, crosses these traditional demarcations.

This study adopts the deductive approach as it intends to test existing theories in service innovation and a service firm's performance relationship. Deductive reasoning works from the more general to the more specific. Sometimes this is informally called a "top-down" approach. The study begins with thinking up a *theory* about the topic of interest. In this study, the structure-conduct-performance paradigm is the base theory upon which other theories rest to help examine the topic of interest which is the innovation-performance relationship. The study then narrows that down into more specific hypotheses that are tested in a series of studies. The study narrows down even further when the study collects *observations* from different service firms to address the hypotheses. This ultimately leads to test the hypotheses with specific data -- a *confirmation* (or not) of the original theories.

2.4 RESEARCH PURPOSE

The classification of research purpose most often used in the research methods' literature is threefold, thus *exploratory*, *descriptive*, or *explanatory* (Engstrom & Salehi-Sangari, 2007). The three are discussed in this section and the justification behind the specific choice is also given.

Exploratory studies generally seek to investigate phenomena that are not well understood (Marshall & Rossman, 1999) or deal with a new, little understood, problem/issue/topic in order to facilitate the development and formulation of a research idea (Phillips & Pugh, 2000). In such cases, the research commonly begins with an exploratory phase to assess what the study should be about and then, depending on the aim of the study, evolves into a descriptive or explanatory phase (Eriksson & Wiedersheim-Paul, 1997). Exploratory research design is characterized by a flexible and

evolving approach to understand a phenomenon that is inherently difficult to measure. Yin (2003) indicates that exploratory research is used to identify important categories of meaning used in generating hypotheses for further research. Exploratory studies are useful for finding out ‘what is happening; to seek new insights; to ask questions and to assess phenomenon in a new light’ (Robson, 2002). In addition, exploratory research could be used to identify important categories of meaning or to generate hypotheses for further research (Marshall & Rossman, 1999; Yin, 2003). It is particularly useful when researchers seek to clarify their understanding of a problem, such that they will present the precise nature of a problem (Saunders et al., 2007). According to Adams and Schvaneveldt (1991) exploratory research is very flexible and adaptable to change.

Descriptive research focuses on documenting and describing the phenomenon of interest (Marshall & Rossman, 1999), without the intention of examining causal relationships (Eriksson & Wiedersheim-Paul, 1997). Descriptive is a conclusive research that has its major objective of providing a description of the characteristics or functions of the phenomenon (Malhotra & Birks, 2007). Descriptive research is proposed in cases where the problem is clearly structured and the researcher is clear about what he or she intends to investigate (Eriksson & Wiedersheim-Paul, 1997). The object of descriptive research is ‘to portray an accurate profile of persons, events, or situations’ (Robson, 2002). Descriptive research in management and business research has a very clear place and should be considered as a means to an end rather than an end in itself.

Explanatory studies attempt to describe the relationship between different phenomena, or variables in the problem model, and examine possible causal relationships between these (Marshall & Rossman, 1999; Philips & Pugh, 2000). Explanatory research “focuses

on studying a situation or problem in order to explain the relationships between variables” (Saunders et al., 2007). The data collected in explanatory research is usually subjected to statistical tests like correlations and regression analysis to explain or understand the link between the various variables.

2.4.1 Justification for Research Purpose Choice

Based on the discussions on the purpose of research above, this study is situated in explanatory purpose. As explanatory purposed studies collect data and usually subject it to statistical tests like correlations and regression analysis to explain linkage between variables, the current study analyzed the relationship between firms’ service innovation strategy and firm performance. The reason for focusing on this method is that explanatory studies rest on specific hypotheses, and they are often concerned with the frequency of occurrence or association between two or more variables. They are used when the research is intended to explain the characteristics of groups or to make predictions of the relationships between variables (Saunders et al., 2007). Also, the research design has been noted to be suitable for studies that aim at analyzing a phenomenon, situation, problem, attitude or issue by considering a cross-section of a population at one point in time (Robson, 1993; Kumar, 1996). This research is very clear on the issues being investigated and intends to give an accurate profile of service firms and their strategic choices to deal with their competitive environment that therefore qualifies to be explanatory by way of purpose.

2.5 RESEARCH STRATEGY

Marshall and Rossman (1999, p. 61) state that research strategy is “a road map, an overall plan for undertaking a systematic exploration of the phenomenon of interest.” Various research strategies and appropriate use of these approaches are presented in this section. Subsequently, the selection of a research strategy for this study is discussed and justified.

Yin (2003) identifies five major research strategies within the social sciences: experiments, surveys, archival analysis, histories, and case studies. However, Saunders et al. (2007) identify the seven research strategies; these are experiment, survey, case study, action research, grounded theory, ethnography, and archival research. Each strategy can be used for all three purposes: explanatory, descriptive, and exploratory. These strategies either belong to the inductive or deductive schools of thought: this is, however, not to say that one is better than the other. Rather, the emphasis should be on the one that enables the researcher to meet the objectives of the research. These strategies should not be thought of as being mutually exclusive but rather can sometimes be used together; that is, complementing each other (Saunders et al., 2007). However, all strategies are associated with advantages and disadvantages and the boundaries between them are often unclear and blurred. When selecting an appropriate research strategy, the decision should be based on the type of research question posed, the extent of control a researcher has over actual behavioral events and the degree of focus on contemporary events (Marshall & Rossman, 1999).

Table 2.2: Relevant Situation for Different Research Strategies According to Yin (2003)

Strategy	Form of research question	Requires control over behavioral events	Focuses on contemporary events?
<i>Experiment</i>	How, why	Yes	Yes
<i>Survey</i>	Who, what, where, how many, how much	No	Yes/No
<i>Archival Analysis</i>	Who, what, where, how many, how much	No	Yes/No
<i>History</i>	How, why	No	No
<i>Case Study</i>	How, why	No	Yes

Source: Yin (2003)

Sounders et al. (2007) also explain their categorizations as follows:

- Experiment: classical form of research that owes much to the natural sciences and also social sciences, particularly psychology.
- Survey: usually associated with the deductive approach. It is a popular and common strategy in business research. They allow the collection of a large amount of data from a sizeable population in a highly economical way. Based most often on questionnaire, data are standardized and allow easy comparison.
- Case study: is of particular interest when the purpose is to gain a rich understanding of the context of the research and the processes being enacted.
- Grounded theory: data collection starts without the formation of an initial theoretical framework. Theory is developed from data generated by a series of observations. These data lead to a generation of predications that are then tested in further observations.

- Ethnography: the purpose is to interpret the social world the research subjects inhabit in the way in which they interpret. This is obviously a research process that is very time consuming and takes place over an extended time period.
- Action research: the researcher is part of the organization within which the research and change process are taking place.

Based on the explanations above, this study adopts the survey strategy. Further explanation is given on the research strategy choice to provide insight and a pathway for the data collection.

2.5.1 Justification for Choosing Survey Strategy

The survey strategy is usually associated with the deductive approach. It is a popular and common strategy in business and management research and is the most frequently used to answer who, what, where, how much, and how many questions (Saunders et al., 2007). In general, a survey involves interviews with respondents using a pre-designed questionnaire. Survey is a vital technique in explanatory research. Survey techniques can be classified into several modes: personal interviews, mail panels, postal surveys, telephone interviews and internet. Respondents are asked questions based on their feelings about their behavior, intentions, and attitudes towards a particular phenomenon (Malhotra & Birks, 2007). Questionnaires are however not the only modes of data collection with surveys. Structured observation and structured interviews, where standardized questions are asked of all interviewees also fall into this category (Saunders et al., 2007).

In the earlier section, the realism paradigm was evaluated as being the most suitable paradigm for this research. There are various methodologies within this paradigm, and one of these methodologies, the survey, has been selected as the methodology most appropriate for this study. Surveys have been defined as: an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Cavaye, 1996). The survey is one of several ways of doing social science research. Other methods include experiments, histories, and the analysis of archival information. Each of these strategies has advantages and disadvantages. Researchers (Cavaye, 1996; Dube & Pare, 2003) have listed the advantages and disadvantages of the survey. For example, Cavaye (1996) indicated that survey research enables the capturing of 'reality' and details by studying a phenomenon in its natural context and it is extremely useful for developing and refining concepts for further study.

Therefore, as this research is in the field of firms' choice of service innovation as a strategic option, the survey is the most suitable research methodology for this study for several reasons. Firstly, the survey method can be used to answer the questions 'how many', 'how much', 'what' etcetera. This research intends to explore the extent to which service innovation enables firms' success and thus, a survey is more suitable for this research to produce answers to the questions than an examination of archival records.

Secondly, the researcher has no control over the contemporary set of events. The survey is preferred in examining contemporary events, but only when the research environment cannot be controlled. According to Bonoma (1985), the survey is best suited for research when the researcher is interested in understanding dynamic contemporary events in an environment over which the researcher has no control. Therefore, the survey method

should be used when a ‘how many’, ‘how much’, ‘what’, etcetera, question is being asked about a contemporary set of events over which the investigator has little or no control. In this study, the researcher has no control over the service sector, its players and the environment within which these players implement their innovation strategies.

2.6 TIME HORIZON

Saunders et al. (2000) believe that most research projects undertaken for academic courses are necessarily time constrained. When planning for the research there are two options in the time perspective:

- Cross-sectional: a study in which a group (or groups) of individuals (institutions or persons) are composed into one large sample and studied at only a single point in time.
- Longitudinal: a study in which an individual (institutions or persons) or a group of individuals is observed over a period of time (Saunders et al., 2007)

This research performed a cross-sectional study. Cross-sectional studies often employ the survey strategy (Easterby-Smith et al., 1991; Robson, 1993). They may be seeking to describe the incidence of phenomenon or to explain how factors are related in different situations. This study is cross-sectional because it attempts to gather data within a specified period, and does not collect data over time. One time data is collected from service managers in this study.

2.7 RESEARCH METHODS CHOICE

In social research, two approaches can generally be taken, based on the two broad categories of data that exist: qualitative or quantitative (Saunders et al., 2007). Essentially, qualitative research involves data in the form of words, pictures, descriptions, or narratives; meanwhile, quantitative research uses numbers and counts and measure things. The decision on whether to choose a quantitative or qualitative method lies in the nature of the mind of the researcher, research field, and research problem (Sullivan, 2001).

Qualitative Method: Usually, the qualitative approach is preferable in the case of exploratory study or when little theoretical understanding of the phenomenon exists, i.e., the research field is new. The qualitative approach provides the possibility for exploring the phenomenon, going into greater depth in studying the research problem and eventually developing a basis for concepts or theories. The main disadvantages of the qualitative method include the subjectivity and narrative nature of the argument, which feeds into the belief that validity and reliability in qualitative research are difficult to address.

Quantitative Method: The quantitative approach is usually applied when the purpose is to verify existing theories or test hypotheses developed based on previous research. The main advantage of the quantitative method is the possibility for gaining an objective and precise assessment of the social phenomenon or human behavior. It is, however, argued whether such a complex phenomenon as human behavior can be correctly described using numbers. Personal meanings and feelings — an inherent subjective dimension of

social research — are difficult to capture in numbers or counts (Sullivan, 2001; Hair et al., 2003).

This study adopts the quantitative method of research since quantitative research is commonly used when the purpose is to test hypotheses/propositions and generalize the result (Hair et al., 2003) that is the case for this research. Thus, quantitative methods are generally concerned with quantifiable data, usually expressed in numbers and statistics, and associated with large samples, high concern for representativeness, and highly structured methods for data collection (Hair et al., 2003). According to Hair et al (2003), quantitative methods are often used within natural science in explanatory studies that aim to analyze and explain causal relationships between variables. As this study sought to explain causal relationships of variables, the quantitative method was considered appropriate.

2.8 DATA COLLECTION APPROACH

This research incorporates the use of questionnaires to gather primary data. A questionnaire, in Oppenheim's (2008) argument, is not some sort of official form with casually jotted-down questions, but rather an important instrument of measurement in research. In fact, being a commonly used approach in marketing research (Churchill, 1995), a questionnaire - which constitutes a formalized set of questions for obtaining information from respondents - represents a typical sub-element of the data collection procedure (Malhotra & Birks, 2007). The plus associated with the use of questionnaires includes the simplicity to tabulate and analyze (Peterson, 2000), and the reliability it produces as a result of the framework of fixed alternatives (Smith & Albaum, 2005). However, the fact that the respondent could be coerced to choose an option which may

not exactly represent the true situation, as he does not have the possibility to answer in his own words, strikes a minus (Churchill, 1995). Nonetheless, it is one of the best ways of collecting data in business and management research.

2.9 DATA COLLECTION AND ETHICAL CONSIDERATIONS

The details of how data were collected for the various essays are described in each essay with detailed quality criteria discussed in terms of reliability and validity as prescribed by Hair et al., (2007). Two levels of data were collected for the three essays.

The first study was used for exploratory factor analysis while the second was used for testing the various hypothesized relationships. The proposed measurement scales were first tested through management perception (Woodcock, Beamish & Makino, 1994; Ketokivi & Schroeder, 2014; Lu, Zhou, Brotun & Li, 2010) in the first set of data collected from service managers across different service industries of the broader Ghanaian service sector. To obtain such needed diversity in management opinion, the questionnaires were distributed to students of masters program (Master of Business Administration (MBA) programs from two universities in Ghana (University of Ghana and Methodist University College, Ghana) as these students have come from different sectors. The justification is that Ghana has just broken into the lower middle-income status and has had services contributing significantly to its GDP in the past 5 years. The service sector has grown (from 40.2% 2009 last quarter to 51.2% 2014 first quarter) and has an annual growth rate of over 7% (Ghana Statistical Service, 2014). This has resulted in most of the sector's middle and senior level managers being required to upgrade them to meet the demands of the service environment. This has accounted for a large number of students coming from the service sector as confirmed by the Graduate Center of

UGBS. Considering the diversity in this sample, the study considered it appropriate for an exploratory factor analysis.

The second was a large-scale data collection from six different service sub-sectors. The sampling frame for the second study was developed from Ghana's banking institutions register with the Bank of Ghana, insurance companies registered with the Insurance Commission of Ghana, and the Ghana Business Directory for the other service sub-sectors. A sample frame for banking and insurance institutions were obtained from their regulators' website while the rest were taken from an online database called the Ghana Business Directory (GBD) (ghanaweb.com) as there were no accurate and updated lists available for the other sectors. The GBD provided detailed information about the firms that made it easy to contact them in person and via other means of communication that had been used in similar studies (see Acquah, 2007; Storey, Boso & Codogan, 2014). The use of a similar database has been used in similar innovation studies (Wang & Ahmed, 2004; Alam, 2011). While the sample for the banking sector was taken from the websites of Bank of Ghana (BoG) (bog.gov.gh), the insurance firms were taken from National Insurance Commission (NIC) (nicgh.org). A total of 27 Universal Banks and 390 Micro Finance Institutions (the two extremes of banking service providers); and 106 Insurance Firms constituted by 18 Life, 26 General and 61 Brokerage firms were obtained. The list from the GBD had 558 business and management consultancy firms, 354 lodges and guesthouses, 741 media and communication firms and 204 general merchants. The total of all the eligible firms stood at 2,380; however, the study particularly focused on firms with active office(s) located in at least one of the three largest cities of Accra, Kumasi and Takoradi. A systematic sampling was applied to the final 1,881 firms in these cities constituting 285 banking institutions, 99 insurance firms,

397 consultancy (professional) firms, 372 guest houses and lodges, 564 media/communication firms and 164 retailers. Within each category of each sector, every third case was selected to be part of the study after they had been arranged in alphabetical order. Where a response was not forthcoming, the next firm was contacted. A total of 627 firms were obtained and management members from different departments within the service firm filled three questionnaires each as innovation is deemed to emanate from different parts of the organization (Sundbo, 1997). A questionnaire comprising the constructs' items on a seven-point Likert scale (1=strongly disagree; 7=strongly agree) was distributed. After two reminders and follow-ups, a total of 702 were received. After excluding those who significantly could not complete the questionnaire and those who were not in a management position, the final number came down to 508 which were used for the analysis of which 170 were from banking, insurance 62, consulting 47, media and communication 99, hospitality 51 and retailing 79.

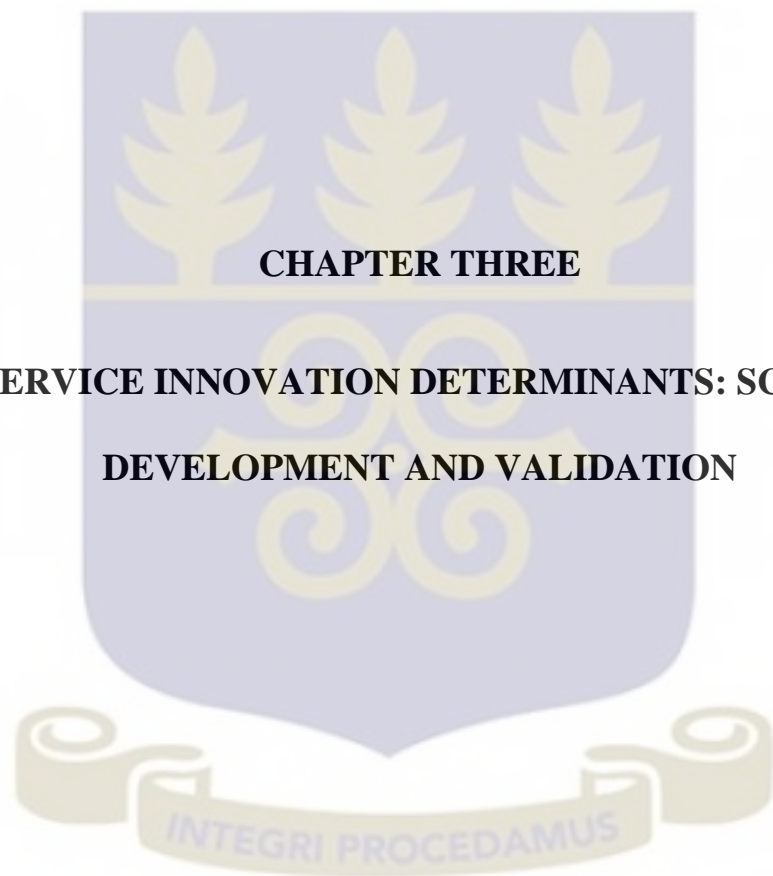
One very important consideration a researcher must not overlook is the issue of ethics in research (Malhotra & Birks 2007). The researcher, in accordance with this, took steps to make sure that no respondent or any participant in this research work was harmed in any way. Permission was first sought from the management of the various firms whose members took part in this study through cover letters. Respondents were also assured that the study was only for academic purposes and not for any other dubious use.

2.10 CHAPTER SUMMARY

In this chapter, the research methodology, including overall research design, data collection processes, procedures and approaches, and the development and

administration of survey questionnaire has been discussed in detail. The research methodologies employed in the present study are consistent with the most recent studies in the area of innovation research.





CHAPTER THREE

**SERVICE INNOVATION DETERMINANTS: SCALE
DEVELOPMENT AND VALIDATION**

SERVICE INNOVATION DETERMINANTS: SCALE DEVELOPMENT AND VALIDATION

Abstract

This chapter develops and empirically tests scales for service innovation determinants. The chapter takes a step towards effectively measuring key factors that facilitate or impede the development of innovation in service firms. Two stage data collection and analysis processes were applied, first for exploratory and second for confirmatory factor analyses. The results show that competitive intensity, customer demand, innovation leadership and innovative culture positively relate to service firms' innovativeness while regulatory regime relates negatively. This chapter shows two broad internal firm factors that capture the entire firm operations and three key external stakeholders' determinants of innovation development and implementation in service firm.



3.1 INTRODUCTION

The highly competitive nature of the business environment the world over has warranted the emphasis by scholars and practitioners on innovation as the way forward for improving corporate fortunes. Schumpeter (1934) in the 1930s recognizes innovation as one of the key sources of competitive advantage for firms. De Brentani (2001) in the early 2000s suggests that the extent to which products and services yield benefits to firms in terms of business performance has been significantly affected by the innovativeness of the offerings delivered. For several decades, innovation has been seen as a valuable capability and asset to firms seeking to increase performance and remain competitive. Innovation is paramount in a modern environment characterized by hypercompetition (Otero-Neira Lindman & Fernández, 2009) and intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). Fourteen years into the new millennium, innovation is still seen at a key driver of firm performance (see Coutelle-Brillet, Riviere & des Garets, 2014).

In the services sector, Victorino et al. (2005) state that innovation benefit is apparent as innovation enhances service differentiation and induces financial gains. In support of this assertion, McDermott and Prajogo (2012) posit that innovation in services has led to the greatest level of growth and dynamism in terms of economic activities over the past several years and has therefore become an important topic in business competition. However, the literature on innovation has concentrated largely on traditional innovation i.e. the technological and manufacturing innovations leaving service innovation far off the pace (Drejer, 2002; Bitner et al., 2008). As researchers and academics the world over are awakening to the realization that services dominates global economies (Bitner,

Ostrom & Morgan, 2008; Jaw, Lo & Lin, 2010), it is important to shift attention to innovation in service firms to further increase the world's productivity and development. The phrase, "we live in a service economy," has become common (Kindstrom & Kowalkowski, 2014). Everywhere in the world, the service sector is growing, such that it accounts for 70 percent or more of the gross domestic product (GDP) in countries such as the USA, UK, France, and Germany, even as the manufacturing sector steadily declines (IMD World Competitiveness Yearbook, 2012). In a developing economy such as Ghana, the service sector contributes about half of GDP (Ghana Statistical Service, 2014) while that of sub-Saharan Africa is more than 50% (IMF Economic Outlook, 2012).

Proponents of the service dominant logic opine that service is the fundamental basis of exchange and that service dominates all economic exchanges (Vargo & Lusch, 2004). However, research on innovation in service has not reflected this fact as it is considered less disciplined and creative relative to the manufacturing and technology sectors (Chesbrough, 2003). Although many studies on services have been conducted over the past few years, service innovation, unlike product innovation, remains a relatively under-explored area (Coutelle-Brillet et al., 2014). The emphasis on innovation in service has been on adoption by customers while how these innovations come about has witnessed less attention (Kohler et al., 2011; Ku & Tai, 2013; Pantano & Viassone, 2014). Innovation processes in service firms have been often characterized as being unsystematic, not science-based (Sundbo and Gallouj, 2000) and often resulting in ad hoc innovations that are not anchored into a strategic plan (Gallouj & Weinstein, 1997).

Recent literature, however, has showed that innovation activities in service firms are beginning to be strategically planned and organized (Scupola, 2012). In an attempt to catch up with the pace of the traditional/manufacturing innovation, scholars have looked at different aspects of the service innovation subject with the view of bridging this gap (Flint, Larsson, Gammelgaard & Mentzer, 2005; Oke, 2007; Yusif, 2012; Carlborg, Kindstrom & Kowalkowski, 2014). In spite of attempts, a major area of the service innovation literature that has not received attention is the influencing factors or drivers of innovations in service firms. Scholars such as Koberg (2003), Koc (2007) and Gungor and Gozlu (2012) that have attempted to deal with the determinants have lacked theoretical cohesion and grounding. In any scholastic attempt to systematize the service innovation process, it is important to first identify factors that determine the innovation process before further enquiry into forms and types is made. It is the objective of this paper to theoretically and empirically show how innovation in service firms is influenced in a cohesive and systematic manner. In doing so we rely on different theoretical strands, namely; institutional theory, service management theory, and the structure conduct performance paradigm (S-C-P) of the industry organization school to show the determinants of innovation in service firms. This reliance is important as Crossnan and Apayding (2010) acknowledge that the field of innovation determinants in terms of theory is fragmented; leading to insufficient theorization in spite of the multiplicity nature of the determinants. We therefore look at more diverse theoretical streams that allow us to tap into the different possible determinants of innovation in service firms. By doing so, the paper helps in addressing the theoretical synthesis issue called for by Crossnan and Apayding (2010).

This paper seeks to develop a measurement model for determinants for service innovation that is specific to service firms. In order to do so, the study begins with a scale development of the determinants through a theory-based literature search. An analysis schedule is put forward that commences with an exploratory factor analysis (EFA) of data from service managers followed by a confirmatory factor analysis (CFA) of a large sample collected from different service sectors. The analysis concludes by showing the robustness of the measures through nomological validation of the determinants by linking them to process innovation, which is a theoretically related construct. The rest of the paper is divided into literature review, theoretical foundation and conceptualization, explication of determinants, methodology, discussion and conclusion.

3.2 LITERATURE REVIEW

The innovation processes in physical products (as in the case of tradition innovation) and service development are similar in principle; however, they vary in specific routines and activities performed, by which the innovation processes are enabled (Tidd, Bessant & Pavitt, 2001). Attempts by some scholars to define the construct have not fully explored the various aspects and have put restrictions on the construct. For example, some scholars see service innovation as product and process innovation (Damanpour, 1991) or an introduction of new services/products to the existing or new clients (Yusif, 2012). Some also define it as organizational and technological innovation and others even refer to it as a form of marketing innovation (Sundbo, 1997). However, the process of service innovation is usually influenced by many more obscure and not easily recognizable factors than the innovation process of tangible production activities in traditional manufacturing industries (Lu, Yang & Tseng, 2009). There is the need for full

exploitation of the construct domain in terms of definition to show how different service innovation is from the traditional innovation.

This study works with a synthesized definition that relies on a combination of the earlier definitions to reflect the different aspects of service innovation. We define service innovation as *“a process and/or outcome of undertaking changes in organizational conduct by pursuing new activities, routines and processes in service to enhance (a) the delivery of significant benefits to a customer, (b) the release of capabilities within the service firm and (c) the competitiveness of the firm. The service innovation as a process could result in the creation of new delivery systems (i.e. means), facilitators for service delivery (catalysts) and/or a service product (end)”*.

In terms of determinants of innovation in service firms, the construct has not received enough attention. The few that have attempted have been fragmented and lack theoretical bases as acknowledged by Crossnan and Apaydin (2010). Gungor and Gozlu (2012) in their attempt cited amount of R&D investment, licensed technology, number of employees, training, manager experience, pressure, sales profile and suppliers profile as the determinants of service innovation with no theoretical anchor. In the study of Galende and Fuente (2003), innovative features are listed as “methods of generation”, “sources of information”, “accumulative nature”, “general objectives”, “mechanisms for appropriating the results”, and “types of R&D and innovations”. Although these studies may be a step towards service innovation determinants, these determinations lack a theoretical basis and leave out key organizational issues such as organization culture, leadership and external factors such as market situation. Koc (2007) on the other hand only concentrated on internal factors as the key determinants of innovation. He relied on

Khan's (1990) assertion and argued that organizational factors are basically a matter for the internal side of a firm and it strongly determines a firm's distinctive identity from that of other firms (Khan, 1990)'s and thus the ability to innovate. Nevertheless, Koberg, 2003 asserts that companies need to understand their environment and adapt them to evolving conditions as competition, customers, lawmakers and other authorities influence the level of innovation in service firms. This inadequate exploitation of the construct determinants by such studies is due to insufficient theorization (Crossnan and Apaydin, 2010). The next section conceptualizes the service innovation determinants with appropriate theoretical foundation.

3.3 THEORETICAL FOUNDATIONS AND CONCEPTUALIZATION

The institutional theory posits that institutionalization of activities in firms occur due to influences on three levels: individual, organizational and interorganizational (DiMaggio & Powell, 1983). The influencers can also be grouped as internal and external organizational factors; thus, the individual level and organization level factors become internal while the interorganization level factors become external. At the individual level, managers influence business activities both consciously and unconsciously (Oliver, 1997). At the organizational level, shared politics, social, cultural and belief, which are all embedded in the organizational, culture influence business strategy and decisions (Oliver, 1997). Lastly on the interorganizational front, pressures from regulatory agencies, industry and society define what is socially acceptable and expected organizational behavior that influences organizations to look and act the same (DiMaggio & Powell, 1983).

The proponents of the Structure-Conduct-Performance (S-C-P) paradigm also assert that decisions and strategies of the firm are influenced by both the internal organization of the firm and external market structure (Mason, 1939; Bain, 1951). That is to say some structural issues that are both internal and external and in turn influence performance influence that a firm's conduct which is primarily the implementation of strategy. In the S-C-P paradigm, the market structures i.e. the activities within a particular industry serve as an external influence on the strategic choices of the firm. The internal organization of the firm is explained by the cultural values, processes, procedures and practices that guide behaviour within the organization.

Based on the above theoretical exposition, the paper posits that innovation development in service firms is driven and determined by both internal and external factors. At the core of the internal factors is the organizational culture, which determines the kind of relationships, and interactions that exist within the firm. Embedded in the culture of the organization are shared meaning, values and belief, which will influence service innovation (strategy) development. The internal structure within the S-C-P paradigm lends support for the innovative culture as a key determinant. At the individual level within the institutional theory, the innovative leadership provided by the managers of organizations will determine service innovation development and adoption. We therefore see internal determinants to be innovative culture and innovation leadership.

It is argued in the S-C-P paradigm that the market structure could be multidimensional and that the factors will be dependent on the industry (Bain 1951). However, the market situation that explains the external influence is reflected in the form of customer demand, competitive intensity and the regulatory regime (de Brentani, 1989; Sundbo, 1997,

Thakur & Hale, 2013) that the service firm faces. These market and industrial phenomenon will serve as the external factors influencing service innovation development and implementation in service firms.

3.4 EXPLICATION OF DETERMINANTS

3.4.1 Internal Structure

Organizational Culture: Organizational culture (OC) lies at the heart of organizational innovation (Tushman & O'Reilly, 1997). Gaynor (2002) noted that innovation does not require genius, but does require a system-wide dedication to pursue unique opportunities and this system-wide dedication is always inspired by the culture of the organization. Sundbo (1997) explains that what exert influence on the firm's strategy (i.e. service innovation) are the internal organizational arrangements and the relationships among the various parts of the firm. Moreover, what underlies this arrangement of parts and group relationships within the firm is the organizational culture. OC is defined as the deeply (often subconscious) values and beliefs shared by personnel in an organization (Martins & Terlanche, 2003). It forms an integral part of the general functioning of an organization and offers shared systems of meanings, which forms the basis of communication and mutual understanding. OC fills the gaps between what is formally announced and what actually takes place (Martins & Terlanche, 2003). As innovation is deemed to emanate from all parts of the firm (Sundbo, 1997), it is safe to say that innovation in service firms is influenced by how innovative the organizational culture is within the firm.

The OC theory suggests that the collective behavior of humans who are part of an organization creates the meanings that the people attach to their actions (Cakar & Erturk,

2010). In service innovation development, OC influences the way people and groups interact with each other which affect the strategic choices and the attitude of individuals towards innovation implementation. OC is also the pattern of such collective behaviors and assumptions that are taught to new organizational members as a way of perceiving, and even thinking and feeling (Twati & Gammack, 2006). OC therefore creates the fundamental service philosophy of the service firm, which eventually determines the tolerance for, the development of and implementation of service innovation. A service firm that is high on innovative culture creates an environment that encourages autonomy and calculated risk taking (Crossan & Apaydin, 2010) which are precursors of successful strategy implementation (Sundbo, 1997). We therefore hypothesize that;

H1: Organizational culture that is innovative positively influence innovation in service firms

Leadership (L): The role of leadership at all levels of an organization, although sometimes tacit, is paramount for spearheading innovation as a process and maintaining its momentum until innovation as an outcome ensues (Crossnan & Apaydin, 2010). Although OC explains the service firm's ability to create a constellation of events and steps among its functional areas, it is the leaders who create and drive the innovative culture. Management who are the leaders and drivers of the organization create the right culture and institutional structure and provide the adequate resources and motivational drive to deliver a successful innovation implementation (Brown & Anthony, 2011).

Organizational innovation leadership influences the service philosophy of continuous search for novelty in value creation. As the upper echelon theory states 'organizational

outcomes, strategic choices and performance levels are partially predicted by top managerial conduct and background characteristics' (Hambrick & Mason, 1984). Hambrick (2007) espouses that if we want to understand why organizations do the things they do, or why they perform the way they do, we must consider the biases and dispositions of their most powerful actors—their top executives; as top management teams in a firm have substantial discretion in determining the future strategic contour of the firm (Child, 1972). Other studies have suggested that business leaders explain about 5–20 per cent of variance in company profitability (Crossland & Hambrick, 2007; Crossan & Apaydin, 2010). Not only is their support and guidance vital in promoting innovative efforts across different functional areas as it contributes to effective interactions among group members (West, Borrill, Dawson, Brodbeck, Shapiro & Haward., 2003); but equally important is their ability to create conditions for the subsequent implementation of innovation (Mumford & Licuanan, 2004). Leaders create a learning environment by providing support for experimentation (Damanpour, 1991; Damanpour & Gopalakrishnan 2002); by being tolerant of failed ideas (Madjar, Oldham, & Pratt, 2002); by adopting risk-taking norms (King 2000); by supporting learning and development of employees; and by fostering the acceptance of diversity within the group (Crossan & Hulland, 2002) all to enhance the competitiveness of the firm. We therefore hypothesize that;

H2: Leadership that is innovative positively influences innovation in service firms

3.4.2 External Factors

Customer Demand (CD): Consumer research regarding innovation shows a consistent result of customers increasingly demanding innovation. Chen and Tsou, (2012) and Pantano and Viassone (2014) assert that customer demand is a great determinant of innovation especially in service firms. Service firms need to understand their customers and adapt themselves to their evolving demands (Koberg, 2003). Customer expectation is one of the most important external factors in innovation (Gungor & Gozlu, 2012) as consumers are the judges of the innovation thus, process or output. The effect of customer demand is immense especially in service firms where the customer is a resource and the assessor of the innovations.

In today's global and dynamic competitive environment, innovation is deemed to be extremely important as a result of demanding markets (Alegre, Lapietra & Chiva, 2006). It is believed that firms that are able to meet the demands of the customers in terms of innovating to meet their needs and wants in an efficient and timely manner will triumph (Calantone, Cavusgil, & Zhao, 2002). We therefore hypothesis that;

H3: Customer demand positively influences innovation in service firms

Competitive Intensity (CI): Another external factor that is most debated is competition and the very first name in this area is Schumpeter (1934). Schumpeter expresses the view that companies need to innovate in order to stay competitive. Thus, innovation strengthens competitiveness of companies, and competition drives companies to be more innovative.

Scholars argue that because hypercompetition has engulfed the modern business environment, innovation has become paramount (Grawe et al., 2009) and intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). Competition is therefore pushing firms to their limit to be flexible, adaptable and responsive (Atuahene-Gima, 2005). Basically, competition may stimulate innovation because entry and the threat of entry provide an incentive to innovate in order to escape competition. Firms that would like to stay competitive can only do so through innovation. We therefore hypothesize that;

H4: Competitive intensity positively influences innovation in service firms

Regulatory Regime (RR): Regulatory regimes have an effect on productivity in general and specifically on allocation of resources, pace of productivity growth by altering the incentives to innovate and by determining the speed with which new products and processes replace old ones i.e. innovation (Griffith & Harrison, 2004). In the same vein, regulatory reforms may lead to a more competitive output market and bring about efficiency and innovativeness (Schiantarelli, 2008).

In economics, it is asserted in the endogenous growth models that product market regulation may be seen as increasing the cost of introducing an innovation (Parente & Prescott, 1994). However, in Schumpeter (1942) the expectations of monopoly profits provide the crucial incentive for innovative activity. A decrease in monopoly profits following regulatory reform may, therefore, decrease the pace of innovation. In addition, the degree of market power also affects the ability to innovate since it allows the accumulation of internal financial resources that can be used to finance innovation;

therefore, if a regulatory regime limits market power, then, innovation is stifled. We therefore hypothesis that;

H5: Regulatory regime negatively influences innovation in service firms

3.5 METHODOLOGY

3.5.1 Scale Development

Hinkin (1995) and DeVellis (2003) recommend starting with a thorough and thoughtful item-generation process when developing a new scale. The study begins this process with an initial literature search on the five determinants of service innovation in the domain of innovation to ascertain if any measurement scales already existed. This exercise proved to be unsuccessful yielding few scattered items. The search domain is extended to management studies that were related to innovation in general. This attempt revealed scales addressing some parts of the constructs domain. Some of the scales were further rephrased to reflect the purpose of this study and further questions posed based on their theoretical relevance in explaining the phenomenon under study.

To ensure face validity, these items were given to five academics that had done works in services and innovation to assess the relevance and clarity of the items generated. Recommendations were made and followed on rephrasing some of the items. Table 3.1 shows the item pool that was generated afterwards. A pretest of the final 29 items was conducted on 8 teaching assistants to help in the item-sort task. Definitions of the five determinants were given in addition to a randomly ordered single document outlining all the 29 items to control for order effect (Riefler, Diamantopoulos & Siguaw, 2012). Participants were instructed to carefully read each item and assign to the determinants

what, according to their individual judgment, it best reflected. There was no need for a proportion of substantive agreement test as prescribed by Anderson and Gerbing (1991) as all of the items were rightly assigned to their respective determinants that reflected high content validity. This paved the way for scale purification through an exploratory factor analysis (EFA).



Table 3.1: Initial Scale Items Generated

The literature consulted includes West et al., 2003; King, 2000; Ko and Lu, 2010; Souitaris, 2002; Jaworski and Kohli, 1993; Alam, 2006; Baumol, 2002; Lindman, 2002; Berry et al., 2006; de Brentani, 2001

Initial Items Generated	
Code	Competitive intensity
comp1	Competition in our industry is cutthroat
comp2	There are many promotion wars in our industry
comp3	Anything that one competitor can offer others can match readily
comp4	Price competition is a hallmark of our industry
comp5	One hears of a new competitive move almost every day
comp6	Our competitors are relatively weak (R)
	Regulatory regime
reg1	Prices are highly regulated in our industry
reg2	There are strict licensing requirements before you enter the market
reg3	For every new service introduction, the firm must go through scrutiny before you launch
reg4	The kind of products and service a firm sells are determined by a regulatory body
reg5	Expansions into other territories are regulated
reg6	The regulatory regime for this industry restricts innovation
	Customer demand
cust1	This industry is witnessing demand for services from customers who never bought them before
cust2	Our customers tend to look for new products all the time
cust3	Sometimes our customers are very price sensitive
cust4	New customers tend to have product-related needs that are different from those of our existing customers
cust5	In our kind of business, customers' product preferences change quite a bit over time
	Innovation leadership
innol1	We get lot of support from managers if we want to try new ways of doing things
innol2	Management is very cautious in adopting innovative ideas
Innol3	Key executives of the firm are willing to take risks to seize and explore "chancy" growth opportunities
innol4	Management actively respond to the adoption of "new ways of doing things" by main competitors
Innol5	There is support for us to constantly seek unusual, novel solutions to problems
Innol6	Senior executives have a demonstrative and risk-taking attitude towards innovations in order to achieve best results
	Innovative culture
innoc1	In our company, we embrace individuals who do things in a different way
innoc2	We are willing to try new ways of doing things and seek unusual, novel solutions
innoc3	We encourage people to think and behave in original and novel ways
innoc4	When we see new ways of doing things, we are last to adopt them in this industry
innoc5	When we cannot solve a problem using conventional methods, we improvise on new methods
innoc6	The culture of this company encourages enthusiastic participation of all in innovative activities

R=reverse coded

3.5.2 Study One: Scale Purification and Reliability

The proposed measurement scale was tested through management perception (Woodcock, Beamish & Makino, 1994; Ketokivi & Schroeder, 2014; Lu, Zhou, Brotun & Li, 2010) by collecting data from service managers across different service industries of the broader Ghanaian service sector. To obtain such needed diversity in management opinion, the questionnaires were distributed to students of masters program (specifically Executive MBA and MBA students; year two) at the oldest and biggest business school in Ghana (University of Ghana Business School (UGBS)) as these students have come from different sectors. The justification is that Ghana has just broken into the lower middle-income status and has had services contributing significantly to its GDP in the past 5 years. The service sector has grown (from 40.2% 2009 last quarter to 51.2% 2014 first quarter) and has an annual growth rate of over 7% (Ghana Statistical Service, 2014). This has resulted in most of the sector's middle and senior level managers being required to upgrade them to meet the demands of the service environment. This has accounted for a large number of students coming from the service sector as confirmed by the Graduate Center of UGBS. Considering the diversity in this sample, the study considered it appropriate for an exploratory factor analysis.

A total of 300 questionnaires were distributed to core classes of Executive MBA and MBA first year students with specific instruction that the questionnaire must be filled by those who are currently working in the service sector. A further specific instruction was that a student occupying a management position in a service firm in Ghana must fill it in. All the items utilized the seven-point Likert-type responses (1=strongly disagree; 7=strongly agree). A total of 208 were returned after four weeks. After excluding those who significantly could not complete the questionnaire and those who did not work in

the services sector, the number came down to 123 that were used for the analysis. This number consisted of at least five managers from banking, insurance, consulting, telecommunication, retailing, hospitality, educational and health services which is considered highly representative of the services sector.

As there were difficulties in ascertaining reasons for non-response, the study followed Armstrong and Overton's (1977) recommendation as the only feasible method of assessing non-response bias. The answers of the early respondents (that is, those who returned the questionnaires within the first week) were compared with those of late respondents who replied within the last week. A test of group means on the constructs of interest revealed no significant differences. Hence it does not appear that non-response bias is a problem in our study.

In accordance with best practices as suggested by Tull and Hawkins (1994), Parasuraman et al. (1998) and Churchill (1995), an exploration of the underlying structure of the data carried out through EFA and stepwise process suggested by Hair et al. (2007) was followed. Initial visual assessment of the correlation matrices indicated a considerable degree of inter-factor correlation (see Table 3.2). In addition to the correlation matrices, the Bartlett test of Sphericity (Chi-square = 2191.238, df=406; $p < 0.000$) and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 81.8% confirmed the appropriateness of the data for EFA. Given that the aim was to identify the minimum portion of the variance of the original items, the principal component analysis was selected (Nunnally, 1978) to reduce the number of factors where the Eigen value was greater than 1 and a cumulative percentage of variance explained being greater than

50% where the criteria used in determining the number of factors. Total variance explained stood at 63.23% that was considered satisfactory.

Table 3. 2: Exploratory Factor Analysis of Service Innovation Determinants and Reliability

Item index	Factors					Item-Total Correlation	Cronbach's α
	1	2	3	4	5		
comp1			.656			.637	.825
comp2			.754			.579	
comp3			.710			.612	
comp4			.736			.693	
comp5			.649			.569	
reg1		.747				.667	.845
reg2		.612				.633	
reg3		.752				.587	
reg4		.759				.710	
reg5		.797				.661	
cust2				.768		.705	.853
cust3				.719		.690	
cust4				.742		.635	
cust5				.848		.749	
innol1					.767	.531	
innol2					.694	.638	
innol4					.554	.578	
Innol5*	.747					.684	.905
innoc1	.649					.692	
innoc2	.734					.768	
innoc3	.830					.804	
innoc5	.872					.732	
innoc6	.810					.751	
% of variance	22.85	18.26	10.89	8.31	4.91		
Eigen value	9.52	2.97	2.57	1.83	1.42		

*an innovation leadership item loaded onto innovative culture

In order to obtain a clear picture of the structure, the initial solution was rotated and in the absence of a compelling analytical or theoretical reason, no prior assumption in terms of factor dependence was made and consequently an oblique rotation was applied to the data (Parasuraman et al., 1988). On the basis of the sample size, the criterion for the significance of the factor loading for the extracted common factor was stipulated to be greater than the absolute value of 0.5 suggested by Hair et al. (2007). In that respect, a cut-off point of 0.5 was set showing evidence of discriminant and convergent validity.

As shown in Table 3.2, five factors were extracted with most of the items loading onto their conceptualized factor except Innol5 that was allowed to be loaded onto factor one. This decision was arrived at due to the fact that the item was loaded onto another internal service innovation determinant factor, shared some properties with factor one items and its inclusion in that factor increased the Cronbach's alpha. Again, because further analysis was to be carried out on the items, its maintenance on factor one was agreed. Some items were dropped due to low factor loadings (Hair et al., 2007). Consistent with the conceptualization, the factors were named. In terms of reliability of the factors extracted, all exceeded 0.75 that is above the recommended threshold of 0.7 by Nunnally (1978) showing a high level of internal consistency and reliability. The combined reliability of the remaining 23-item scale computed using the formula for reliability of linear combinations (Nunnally, 1978) is high (0.906). To further strengthen the robustness of the measurement, and test the hypotheses stated, a second study using the new 23 items was done to test for model fit and nomological validity through a confirmatory factor analysis.

3.5.3 Study Two: Scale Replication and Validation

Twenty-three items are incorporated in addition to a 5-item for process innovation (from Damanpour, 1996; Sundbo, 1997; Ritter, 2006) in a questionnaire and administered it to service managers from banking, insurance, consulting, retailing, media & communication and hospitality firms in Ghana. This second study seeks to confirm the factor structure, and establish the robustness of the model's psychometric properties across a larger scale data collection within a larger context. Again, all items used for scale development purposes utilized the seven-point Likert scaling responses (1=strongly disagree; 7=strongly agree).

Sample frames for banking and insurance institutions are obtained from Bank of Ghana and National Insurance Commission (NIC) and Ghana Business Directory (GBD). The GBD provided detailed information about the firms that made it easy to contact them in person and via company email address or telephone (see Acquah, 2007; Storey, Boso and Codogan, 2014). The use of a similar database has been used in similar innovation studies (Wang & Ahmed, 2004; Alam, 2011). A total of 27 Universal Banks and 390 Micro Finance Institutions (the two extremes of banking service providers); and 106 Insurance Firms constituted by 18 Life, 26 General and 61 Brokerage firms were obtained. The list from the GBD had 558 business and management consultancy firms, 354 lodges and guesthouses, 741 media and communication firms and 204 general merchants. The total of all the eligible firms stood at 2,380; however, the study particularly focused on firms with active office(s) located in at least one of the three largest cities of Accra, Kumasi and Takoradi. A systematic sampling is applied to the final 1,881 firms constituting 285 banking institutions, 99 insurance firms, 397 consultancy (professional) firms, 372 guest houses and lodges, 564 media/communication firms and 164 retailers. Within each category of various sectors, every third case was selected to be part of the study. Where response was not forthcoming, the next case was contacted. A total of 627 firms were obtained and management members from different departments within the service firm filled three questionnaires each. Managers such as CEOs, General Managers, Business Development Managers, Marketing Managers, Finance Managers, Channel and Corporate Affairs Managers responded to the questionnaires. After two reminders and follow-ups, a total of 702 were received. After excluding those who significantly could not complete the questionnaire and those who were not in a management position, the final number came down to 508 (see Table 3.3) which were used for the analysis.

Table 3.3: Sector Distribution of Valid Respondents

Sector	Frequency	Percent
Banking	170	33.5
Insurance	62	12.2
Consulting	47	9.3
Media & Communication	99	19.5
Retailing	79	15.6
Hospitality	51	10.0
Total	508	100.0

Amos 20 software is used to estimate the measurement model of the proposed scale for the five-factor model. The CFA is used to check the goodness-of-fit of the measurement scales. The CFA has been used to test the psychometric properties of measurement scales in a number of studies (Alegre et al., 2006; Rieflier et al., 2012; Lin & Hsieh, 2006) and CFA is recommended in assessing construct validity and reliability of subjective measurement instruments (Montoya-Weiss & Calantone, 1994). CFA improves congeneric measurement properties of scales during the refinement stage (Anderson & Gerbing, 1988; Arnold & Reynolds, 2003; Lin & Hsieh, 2006). The study estimates a 23-item, five factor confirmatory factor model and the results include a significant χ^2 -value ($\chi^2_{(398)}=1432.193$, $p,0.00$), and root mean square error of approximation (RMSEA), goodness-of-fit-index (GFI), adjusted goodness-of-fit-index (AGFI), normed fit index (NFI), incremental fit index and comparative fit index (CFI) values of 0.088, 0.77, 0.71, 0.74, 0.81 and 0.85, respectively for the initial model are obtained. The CFA results reveal some fit indices in excess of acceptable thresholds and an inspection of the modification indices (MIs) suggests the removal of some items. The next stage is to inspect all items for domain representativeness.

Repeated scrutiny of the items resulted in a final confirmatory model that contained 17 items and displayed acceptable overall fit ($\chi^2_{(389)}=1043.118$, $p<0.00$; RMSEA=0.065, GFI=0.88, AGFI=0.82, NFI=0.86, IFI=0.95 PCLOSE=0.123 and CFI=0.95). Combined

reliability for the 17-item, five dimension scale is high (0.828). Since the final 17 items parsimoniously represent the five dimensions of service innovation determinants and since each item taps into a unique facet of each dimension while providing good domain representation, no further items are removed. Table 3.4 shows the final five-factor model of 17-item service innovation determinants.

Table 3.4: Final 17 Items of Service Innovation Determinants

Determinants	Item	Item loading	t-values	Final CFA	
				Composite reliability (α)	AVE
External Factors					
<i>Competitive Intensity</i>	Comp1	0.849	6.675	0.792(0.714)	.516
	Comp3	0.681	7.583		
	Comp4	0.735	Fixed		
<i>Regulatory Regime</i>	Reg1	0.696	7.054	0.826(0.796)	.548
	Reg2	0.715	7.236		
	Reg4	0.838	8.186		
	Reg5	0.730	Fixed		
	Cust2	0.940	5.886		
<i>Customer Demand</i>	Cust5	0.753	Fixed	0.770(0.731)	0.621
Internal Factors					
<i>Innovation Leadership</i>	Inno11	0.615	6.173	0.721(0.711)	0.638
	Inno12	0.772	7.498		
	Inno14	0.765	Fixed		
<i>Innovative Culture</i>	Innoc1	0.728	8.615	0.859(867)	0.654
	Innoc2	0.799	9.688		
	Innoc3	0.873	10.840		
	Innoc5	0.784	9.460		
	Innoc6	0.801	Fixed		

Further convergent validity is established as all items in the CFA loaded significantly with large patterns of coefficients (Gerbing & Anderson, 1988). Again, measuring the average variance extracted (AVE) indicates the degree to which scale items measure one common factor, underscoring a scales convergent validity. The scales also demonstrated discriminant validity as the study applied the AVE method developed by Fornell and Larcker (1981). The analytical results showed that for all factors, AVE exceeded 0.5 indicating convergent validity. The squared Pearson correlation coefficients between

factor pairs are lower than the AVEs of the five factors and therefore show adequate discriminant validity.

3.5.4 Nomological validity

For robustness, nomological validity is tested. Another method to assess construct validity of the new measure is to determine whether the scale behaves as expected with measures of other theoretically related constructs thereby developing a nomological network and establishing criterion-related evidence for nomological validity (Hinkin, 1998; Mathwick et al., 2000). To accomplish this, the study tests the relationship between the service innovation determinants and process innovation using (a) the internal and external factors and (b) the five-factor model. This method demonstrates the ability of the scale to explain and predict dependent variables they are expected to predict (Arnold & Reynolds, 2003). Process innovation is regressed on the two broad factors (internal and external) of the five dimensions. The study aggregates the scales to two broad Service Innovation Determinants by averaging measurement items for each dimension. The regression yielded a significant positive relationship between internal determinants and process innovation ($\beta=0.541$; $t=13.98$; $p<0.001$) as well as external determinants and process innovation ($\beta=0.108$; $t=13.98$; $p<0.01$). A regression analysis is further performed on process innovation on the five dimensions. The regression yielded significant relationships as hypothesized and these are shown in Table 3.5. Summarizing the pattern of results, the study concludes that the refined service innovation determinant demonstrates nomological validity.

Table 3.5: Hypothesis Testing

Dependent variable is process innovation that is used in this study to be the possible outcome of service innovation determinants that are the independent variables. The independent variables are internal factors, external factors, innovative culture, innovation leadership, customer demand, regulatory regime and competitive intensity. ***, ** and * indicate statistical significance at 0.1%, 1% and 5% levels respectively.

Hypothesis	Dependent Variable	Independent Variable	Regression Coefficient (t-value)	Decision
H1	Process Innovation	Organizational Culture	0.186***(4.43)	Supported
H2		Leadership	0.279***(6.41)	Supported
H3		Customer Demand	0.225***(5.35)	Supported
H4		Competitive Intensity	0.110*(2.88)	Supported
H5		Regulatory Regime	-0.051*(-1.28)	Supported

Table 3. 6: Correlation Metrics

Pearson correlation coefficient estimated on the sample of respondents implies 5% significance or more. The mean and standard deviation figures also describe the data.

* $p < 0.05$ ** $p < 0.01$

No	Item	Mean	SD	1	2	3	4	5	6
1	Competitive intensity	5.01	1.06	1					
2	Regulatory regime	4.88	1.15	.096*	1				
3	Customer demand	4.85	1.17	.135**	.052	1			
4	Leadership	4.77	.943	.163**	.337**	.320**	1		
5	Organizational Culture	4.65	1.07	.127**	.068	.390**	.332**	1	
6	Process innovation	4.76	.984	.160**	.154**	.389**	.353**	.393**	1

3.6 DISCUSSIONS

The results show in a systematic manner how innovation in service firms is influenced by both internal and external factors. In relying on different theoretical strands that Crossnan and Apayding (2010) advocate to be important, the institutional structures – both internal and external - coupled with external market dynamics determine innovation in service firms. To follow the recommendation of Crossnan and Apayding (2010) on exploring other theoretical strands in order to tap into the multiplicity nature of innovation determinant, the study comes up with two broad sets of determinants and five specific determinants all tapping into the two broad sets. A thorough survey of literature reviewed internal factors (Khan, 1990; Koc, 2007) and external factors (Sundbo, 1997;

Koberg, 2003; Thakur & Hale, 2013) as the determinants of innovation in service firms. Further review suggested that there are specific environmental and structural issues that influence innovation as a strategic adoption by a service firm and was therefore hypothesized as the five-factor model.

The findings of this study agree with earlier results of Tushman and O'Reilly, (1997), Gaynor (2002), Twati and Gammack (2006) and Cakar and Erturk (2010) who found that organizational culture influences the way people and groups interact with each other which affect the strategic choices and the attitude of individuals towards innovation implementation. The results indicate support for the hypothesis that organizational culture positively influences the level of innovation of a service firm at $p < 0.001$ significance level. The findings of this study also support the assertion by Crossland and Hambrick (2007) that firms that are high on innovation leadership are highly innovative. The findings support Hambrick (2007) exposition that organizations do what they do (innovative) due to the influence of the most powerful actors - top executives and top management teams.

All the hypotheses regarding external factor determinants were duly supported. With the exception of regulatory regime that was negatively hypothesized to determine innovation in service firm, customer demand and competitive intensity showed a positive relationship with innovation in service firm. It also indicated that as regulatory regime within which a service firm operates becomes more stringent, the level of innovation decreases confirming the negative relationship hypothesized. The study therefore confirms that they are key external environmental factors that influence innovation in

service firms (Atuahene-Gima, 2005; Schiantarelli, 2008; Gungor and Gozlu 2012; Pantano & Viassone, 2014).

3.7 CONCLUSION

The scale development process for this study followed recommendations from Hinkin (1998) and DeVellis (2003) to generate items. Face and content validity were established by following the recommendations of Anderson and Gerbing (1991) before exploring the underlying structure of the items through an EFA. The EFA confirmed the five-factor hypothesized with high alphas signifying high reliability and internal consistency. A more robust measure of scale development and validation was followed through a CFA. Anderson and Gerbing (1988) asserts that CFA improves congeneric measurement properties of scales during the refinement stage which yielded confirmation of a good fit five-factor model containing a final 17 items.

Reliability of constructs was achieved as a composite reliability threshold of 0.6 (Fornell & Larcker, 1981) and a more stringent measure of 0.7 by Hair et al. (2003) and Hatcher (1994) was exceeded as shown in Table 3.4 (between 0.72 and 0.85). Construct validity was also established as both convergent and discriminant validity was present. Given that standardized factor loadings exceeded 0.6 and the AVE for each construct was greater than 0.5, the study has shown that the measurement items converged on each separate construct in the manner hypothesized. The construct correlation matrix also shows low correlation coefficients that further indicate how the constructs discriminate. The nomological validity of the construct also showed that the constructs were valid and consequently predicted process innovativeness of service firms.

The service innovation determinants constructs developed in this paper takes a step forward towards effectively measuring key factors that facilitate or impede the development of innovation in service firms. Departing from other studies that have based their determinants of service innovation on only firm context in terms of R&D budget, firm size and employees, this study has shown two broad internal factors that capture how the entire organization in itself determines service innovation tendency, development and implementation. Organizational culture and the leadership direction of service firm are seen as the two main drivers of innovativeness of the firm as the two determines other factors such as firm size, employee behavior and the R&D budget. The study concludes that the two effectively influence other factors within the firm that may serve as a driver of innovation.

The external environment of the service firm and its propensity to innovate is seen to be controlled by three stakeholder groups i.e. customers, competitors and other stakeholders who largely give legitimacy. Such legitimacy groups exercise a level of control that determines innovation propensity and the success of innovation of the service firm. If a regulatory regime limits the market power of the service firm, then innovation is stifled. Consumers are the judges of the innovation and greatly influence the firm's innovativeness. The sophistication of present day consumers leaves service firms without choice but to innovate. Intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). The call for service firms to innovate is a right; thus; must be flexible, adaptable and responsive to the changing business environment.

CHAPTER FOUR

**ENVIRONMENTAL MODERATORS AND PERFORMANCE EFFECT OF
INTERACTIVITY INNOVATION: STUDY OF THE SERVICES SECTOR OF
AN EMERGING ECONOMY**



**ENVIRONMENTAL MODERATORS AND PERFORMANCE EFFECT OF
INTERACTIVITY INNOVATION: STUDY OF THE SERVICES SECTOR OF
AN EMERGING ECONOMY¹**

Abstract

The chapter analyses the effect of interactivity service innovation on firm performance and how such relationship is moderated by environmental conditions. Data is analyzed at two levels; the first for validation and the second for structural analysis. Structural Equation Modeling is used in analyzing the relationship between interactivity innovation and service firm performance and environmental moderating effects. The results suggest that the deployment of high levels of interactivity innovations in a period when customer demand is high is significantly associated with high performance. The results also show that the relationship between high innovation and financial performance is dampened in the period of high competitive intensity.



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4.1 INTRODUCTION

Innovation has been seen as a key competitive and efficiency tool in the dynamic-progressive economic environment since the Schumpeterian (1934) time. Grawe, Chen and Daugherty (2009) note that it is paramount in this hypercompetition-characterized market that continuous innovation is required to create a new advantage (Dess & Picken, 2000). Firms have been admonished to be flexible, adaptive and responsive (Atuahene-Gima, 2005) thus, to innovate in order to improve their performance. Until recently, there had been difficulty in associating innovation with the service sector despite the subject's immense prospects of improving organizational fortunes. Castro, Montoro-Sanchez and Ortiz-De-Urbina-Criado (2011) note that traditionally, services have been defined in a negative sense; once the manufacturing industry has been defined, all the rest belong to the tertiary service sector. The heterogeneity of the activities of the service sector has increased the difficulty of understanding the major growth of this sector in modern economies and has contributed to the tendency in the past to consider services as something residual, dependent on manufacturing, technologically backward and, consequently, not very innovative (Mansury & Love, 2008). It has now come to light that services dominate global economies and economic growth (Bitner, Ostrom & Morgan, 2008; Jaw, Lo & Lin, 2010; McDermott & Prajogo, 2012) and that the lack of studies of innovation in this sector is a great disservice to the world's economy.

Innovation in services appeared about three decades ago with authors like Gershuny and Miles (1983) beginning to consider innovation potential in services, but it was not until the 90s that patterns of the subject emerged (Camacho & Rodriguez, 2005). As atonement for decades of neglect, a strand of literature has emerged which examines the nature, types and causes of innovation in services (see Mansury & Love, 2008; Ko & Lu,

2010; Castro et al., 2011). As a result of the emergent nature of the service innovation phenomenon, different theoretical perspectives have been applied to various inquiries into the subject. While others apply the logic of the traditional manufacturing approaches (assimilation perspective) that see services as no different from manufacturing, others have seen services as a distinctive set of activities (demarcation perspective) that must have its instruments and theories. The two perspectives have further created difficulty in understanding the subject. The call by Cooms and Miles (2000) for a synthesis position was in order as it helped to clear all the conceptual difficulties associated with measurements and typologies of service innovation. The synthesis perspective holds that service innovation reveals aspects neglected in the widely distributed innovation process in the economy which is largely manufacturing biased. This perspective does not see service innovation as entirely different nor strictly follows the manufacturing innovation process, but rather looks for the obscure and not easily recognizable factors and activities that set service apart from manufacturing. One such factor largely ignored in the innovation discourse is the customer-service firm interface i.e. the interaction that enables co-creation of value and the concurrent production-consumption activities performed by the service firm and the customer in the service delivery process.

Service innovation has been linked to the creation of customer value (den Hertog, van der Aa & de Jong, 2010), which is a customer's perceived preference for a product's attributes, performances, and consequences of use. As market environments change, the components of customer value are also likely to change. As a result, valuable experience creation can be achieved through innovations based on the interactions with the customer which often requires that firms anticipate future customer needs and the market dynamics. Services are basically a process of interactivity between the service provider

and the customers. The service firm's ability to reconfigure the service process and create innovation through the interactions with the customer remains core to the operational success and competitive advantage development. This paper makes contribution to the service innovation discourse by bringing to the fore other dimensions of innovation in services premised on value-co-creation and customer-service firm interface which has not received attention in the service innovation literature. The paper proposes testable interactivity innovation dimensions and empirically tests these through a series of steps recommended by DeVellis (2003). The paper develops measurement scales for these dimensions through a thorough literature search and validates the scales through expert screening, and exploratory and confirmatory factor analyses.

As a further contribution, the paper tests the relationship between this new dimension of innovation in service firms and firm performance. Innovation and innovative oriented efforts are internal capabilities that, it is argued, can boost the success of a firm in challenging environments (Otero-Neira, Lindman & Fernández, 2009). However, the universal performance benefits of innovation as a strategy are in question (Li & Atuahene-Gima, 2001; Grawe, et al., 2009; Pantano & Viassone, 2014), and it remains unclear as to whether investing in innovation such as interactivity innovation is appropriate for all businesses all of the time. Although the paybacks for innovation strategies have received attention (see Darroch & McNaughton, 2002; Crossan & Apaydin, 2010), the institutional frameworks and environmental conditions under which they are most effective remain less understood. There is a pressing need to clearly delineate the boundary conditions of innovation especially in service firms; that is, to identify when they are the least and most effective management tool, and to determine the extent to which their effectiveness is conditioned by customer demand and

competitive intensity. Similarly, empirical tests of potential business outcomes of innovation in service firms are heavily biased to data originating in developed nation settings (e.g. Grawe, et al., 2009; Carlborg, Kindstrom & Kowalkowski, 2014), meaning that the benefits or costs of investing in innovation in less developed societies are unknown. The study therefore asks the question: how do environmental conditions such as customer demand and competitive intensity influence the performance benefits of interactivity innovations in service firms operating in an emerging economy? By providing an answer to this question, the study makes contribution to the boundary conditions of the effects of a service firm's innovation on performance which is under-researched. In addition, the paucity of research into innovation in service firms in emerging market contexts is telling, since the literature indicates that the beneficial effects of a firm's strategic orientation (such as innovation) may be context specific as opposed to being universally applicable (e.g. Li & Zhou, 2010; Boso, Story & Cadogan, 2013). Drawing on the contextual dissimilarities of developing contexts, the study presents a modified theory of the likely performance consequences of service innovation (interactivity innovation) in an emerging market environment.

The study draws on the dynamic capability view (DCV) (Teece, Pisano & Shuen, 1997) and strategic innovation theory (SIT) (Sundbo, 1997) to enrich our understanding of the development of and beneficial effects of interactivity innovations. The dynamic capabilities are routines within the firm's managerial and organizational processes that aim to gain, release, integrate and reconfigure resources (Teece et al., 1997) and do not only seek to adapt a firm's resource base to evolving customer demands and market trends, such as an increased demand for services, but also allow firms to shape their environment through innovation (Teece, 2007). Underpinning these dynamic capabilities

are micro-foundations which are defined as distinct skills, processes, procedures, tools, organizational structures, decision rules, and disciplines (Teece, 2007). The service firm has assets, processes, skills, procedures, systems, tools and knowledge which enable it to develop and implement strategies (interactivity innovation) to improve efficiency and effectiveness (Barney, 1991, Grawe et al., 2009).

The SIT posits that service firms are market driven and that the conduct of service firms is based on the market situation and this market situation is reflected in the form of customer demand and competitive intensity (Sundbo, 1997; Thakur & Hale, 2013) that the service firm faces. The study posits that because the service firm is market driven, the effectiveness of its innovation activities will be facilitated by the extent to which customers are demanding such innovations and the competitive intensity of the business environment.

In the section that follows, the theoretical background and research hypotheses, as displayed in Figure 4.1, are presented. Next, the study describes the research methods and the development of the measures used. This is followed by the study's analytical approaches including an evaluation of the measures and an assessment of the hypotheses. Presentation of the results of the tests of the hypotheses follows. The study concludes with a discussion of its contribution to the service innovation literature and managerial implications for service firms' managers and researchers.

4.2 THEORETICAL FRAMEWORK AND HYPOTHESIS

4.2.1 Interactivity Service Innovation and Performance

Definitions of service innovation that are limited to only the service offering or service process are inadequate (Carlborg, Kindström & Kowalkowski, 2014). For example, some scholars see service innovation as product and process innovation (Damanpour, 1991); introduction of new services/products to the existing or new clients (Yusif, 2012). Some also define it as organizational and technological innovation and others even referred to it as a form of marketing innovation (Sundbo, 1997). The process of service innovation is usually influenced by many obscure and not easily recognizable factors other than the innovation process of tangible production activities in traditional manufacturing industries (Lu, Yang & Tseng, 2009). Some of these factors are the concurrent production-consumption and the interaction that allow the customer and service firm to co-create value as espoused by Sundbo (1997).

Gadrey, Galloui and Weinstein (1995) define service innovations as innovations in processes and innovations in organizations for existing service products. Service innovations can be described as new developments in activities undertaken to deliver core service products for various reasons, e.g. to make those core service products more attractive to consumers (Oke, 2007). Such developments tend to involve interaction with customers and can be associated with either the delivery of new or existing service products. John and Storey (1997) argue that service suppliers must develop the precise form of service offering and the appropriate nature of interaction with customers since the interaction process is typically an integral part of an offering. The innovations in service firms may influence or be influenced by innovations in the core service product as well as the general service delivery atmosphere or process. Service innovations are,

therefore, related to variations in product delivery or add-on services embellishing the service experience for the customer (Oke, 2007).

Service innovation can be created through the roles of customers that Nambisan and Nambisan (2008) refer as a resource and co-creator. Service innovation should be linked to the creation of customer value, which is a customer's perceived preference for a service product's attributes, performances, and consequences of use (Grawe et al., 2009). This paper refers to such innovation as interactivity value innovations. Such innovations create customer value - "the customer's perception of what they want to have happen in a specific-use situation" (Stahl, Barnes, Gardial, Parr & Robert, 1999, p. 53). Firms could innovate in different specific-use situations where there is direct or indirect interaction with the customer. These specific-use situations allow service firms to provide innovative experiences that enhance customer value.

Interactivity value innovations are based on the premise that service is always co-produced through the interaction between the service firm and the client. Value is therefore produced out of the interaction with the customer who is the target of service innovations. Vargo and Lusch (2004) defined service as the application of competencies (knowledge and skills) by one entity for the benefit of another that implies value creation through collaborative interactive configuration of mutual exchange. This interactive configuration is what Vargo, Maglio and Akaka (2008) refer to as the service system. Service firms must look for innovations within the service system that create competitive value. In this service system, the firm could involve the customer as a resource and a co-creator (Nambisan & Nambisan, 2008) by allowing the customer to perform key roles such as determining the kind of value he wants in a specific use situation. Scupola,

Henten, Nicolajsen and Westh (2009) assert that collaboration between providers and customers in specific use situations can lead to a mutual understanding of the customers' needs and wishes which enable customer satisfaction. Interactive value innovation in service firms comes in the form of customization, timing and involvement value innovations.

Customization Value Innovation – Certain key customers (potential and current) may exhibit special needs that may require service configuration change in order to meet these needs. Customization value innovations allow firms to alter their service products, process and personnel structure to meet special needs that yield great returns. Customization innovation comes as a result of the service firm aligning its service systems to suit a particular customer within a specific use-situation and to create a unique value for the customer. Customizing the service experience for guests is another means of service innovation that has the ability to garner competitive advantage. Customization innovations allow the service firm to create a special kind of experience according to the individual's preferences. Customization innovation in a hotel may be in the form of allowing guests to have flexible check in/out times, pick up services, personalizing room décor, or having child care options available. Victorino, Verma, Plaschka and Dev (2005) assert that customized options adapt the hotel's service offering to each individual guest's preferences.

Berthon and John (2006) refer to the use of history of customer-firm interaction as a continual value creation alternative. High levels of customization innovations are achieved in situations where previous interaction with a customer informs how the customer is treated subsequently according to the customer's preferences.

Timing Value Innovation – The currency of service delivery is key to the success of every service firm. Timing is a kind of interactivity value innovation which takes the form of service firms' responsiveness to the needs of customers in a prompt and timely manner. This kind of interactivity innovation reflects the extent to which the interaction respects the temporal relevance for the customer. Service firms can innovate by being sensitive to time and timing of their service delivery. Berthon and John (2006) contend that customers value interactions when the firm is responsive to their needs and is prompt in responding to their requests. Services delivered to the customer must be current to reflect the relevance of time to the customers. For example, customer requesting for a quotation on a share price or any financial security carries with the request the temporal relevance for a prospective investor. The perishable nature of service makes the timeliness of its delivery more important for both the customer and service firm. Service firms that are able to innovate in the currency of service delivered create a competitive advantage.

Involvement Innovation – Successful service firms always ensure a successful participation of the customer in the creation of value so desired by the customer. Stokes (2014) opines that involvements of customers in organizational innovation teams are rapidly becoming more prevalent. Customer involvement is a kind of interactivity innovation, where service firms create the environment for the customer to direct the interaction. The judge of the result (value) of the co-production is the customer and must therefore be allowed to be in charge of the value creation determination. The involvement value innovation reflects the extent to which the service firm innovates in making the customer direct the interaction and involve the customer in the service delivery process. Web site interactivity studies (see Liu, 2003) confirm that individuals

value their ability to control the interaction. As the service firm increasingly involves the customers in co-design and co-produce solutions, there is a concomitant increase in the customer's ability to influence the value to be delivered which increases satisfaction (Berthon & John, 2006). The customer should be seen as an external resource (from the DCV perspective) in innovation generation and screening through need/problems statements and criticism of existing services and processes (Nambisan & Nambisan, 2008; Alam, 2011). Involving the customer as a resource must be premised on the provision of incentives to foster participation and the capture of knowledge that create competences for service innovations development (Scupola & Nicolajsen, 2010).

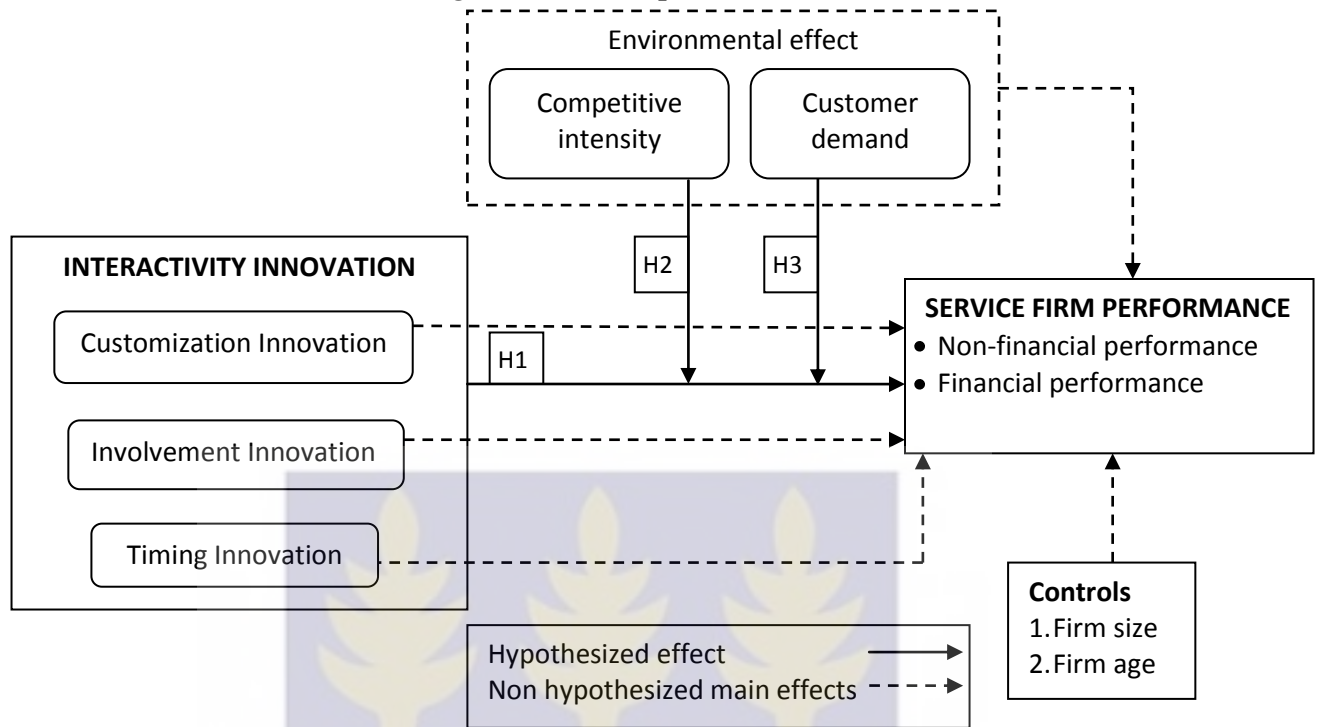
Bitner et al. (2000) recommend close involvement of customers in the design process of services as critical in developing a competitive urge. Customers may contribute in a number of ways including stating their needs, problems or solutions or criticizing existing services (Alam & Perry, 2002). They may also help in screening ideas by responding to concepts or alternative solutions with their thinking, dislikes or preferences. In order to get these insights, customers may be involved through face-to-face meetings, customer visits or meetings, workshops, customer observations or direct types of communication (Alam, 2002). As co-creators, customers can participate in a number of activities varying from the service design activities to service development activities (Scupola & Nicolajsen, 2010). Such activities might include the validation of architectural choices or the specification of interface requirements that yield long-term benefits for the service firm.

According to management scholars, innovation capability is the most important determinant of overall firm performance (Crossan & Apaydin, 2010). Innovation is

considered as a necessary strategic ingredient for firms simply wanting to remain competitive (Darroch & McNaughton, 2002) and to improve performance (Li & Atuahene-Gima, 2001). An argument has been made that innovation is paramount in a modern environment characterized by hypercompetition (Otero-Neira, Lindman & Fernández, 2009; Grawe et al., 2009) and intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). The performance (and even the survival) of firms depends more than ever on their ability to achieve a solid and competitive position and on their flexibility, adaptability and responsiveness (Atuahene-Gima, 2005). Therefore, Grawe et al., (2009) consider it hardly surprising that there is growing interest in innovation as a strategy that allows the firm to improve its flexibility, competitive position and performance.

Innovation has been empirically linked with superior performance (Crossnan & Apaydin, 2010) as Cooper and Kleinschmidt (1995) have argued that highly innovative new products would lead to superior performance. In service innovation, it is even more profound as firms have elected to compete on the basis of service innovation rather than on physical products which Kandampully and Duddy (1999) see as a testimony to the service innovation's capability to build competitive advantage. Service innovation has been linked to the creation of customer value – a highly competitive feature – which is a customer's perceived preference for a product's attributes, performances, and consequences of use (Woodruff, 1997). The study therefore hypothesizes that;

H1: Over and above the main effects of the individual interactivity innovations on a service firm's success, the interaction of the three is positively related to a service firm's performance.

Figure 4. 1 Conceptual Model

4.2.2 Interactivity Innovation, Customer Demand and Performance

Customer Demand (CD): Consumer research regarding innovation shows a consistent result of customers increasingly demanding for innovation (Chen & Tsou, 2012) and that customer demand influences the beneficial effect of innovation (Pantano & Viassone, 2014). Service firms are strongly advised to understand their customers and adapt themselves to their evolving demands to increase their performance (Koberg, 2003). Customer expectation is considered one of the most important external factors in innovation (Gungor & Gozlu, 2012; Saemundsson & Candi, 2014) as consumers are the judges of the innovation; be it process or output. Especially in a service firm where the customer is a resource and the assessor of the innovations, the effect of customer demand on innovation is considered immense. Consumers' demand for and acceptance of innovation is critical to the performance effect of such innovation.

In today's global and dynamic competitive environment, innovation is deemed to be extremely important as a result of demanding markets (Alegre, 2006), and as such it is expected that high customer demand will positively influence the performance and innovation relationship (Calantone, Cavusgil & Zhao, 2002). The study therefore hypothesizes that;

H2: The interaction among the three interactivity innovations is more positively related to a firm's performance when customer demand is higher

4.2.3 Interactivity Innovation, Competitive Intensity and Performance

Competitive Intensity (CI): Schumpeter (1934) expresses that companies need to innovate in order to stay competitive, and competition on its own diminishes profit prospects. Innovation therefore strengthens competitiveness of companies, and competition drives companies to be more innovative. However, high competitive intensity threatens the positive relationship between innovation and performance.

Scholars argue that because hypercompetition has engulfed modern business environments, innovation has become paramount (Grawe et al., 2009) and intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). Innovation is therefore expected to create competitive advantage for the firm; however, this effort by firms is threatened by conditions of high intense competition as market players jostle for market share maintenance. Entry of new entrants, matching of competitive moves and promotional wars are expected to limit the

beneficial effect of innovation in a service environment when competition is high. The study therefore hypothesizes that;

H3: The interaction among the three interactivity innovations is less positively related to a firm's performance when competitive intensity is higher.

4.3 METHODS

4.3.1 Study Setting, Sample and procedure

The services sector is significant to the growth of the Ghanaian economy (Hinson, 2006) and has not only recently been acknowledged to be the largest contributor to Gross Domestic Product; but also employs a large portion of the formal sector (Ghana Statistical Service, 2012). Several scholars (e.g. Lovelock & Wirtz, 2007) have positioned services to cover a large range of complex economic activities offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients themselves or in objects or other assets for which purchasers have responsibility. Zeithaml, Parasuraman and Malhotra (2002) defined services as deeds, processes, and performances provided or co-produced by one entity or person for another entity or person. The characteristics of services i.e. intangibility, inseparability, perishability and variability constitute some of their key dissimilarities with physical products (Zeithaml, et al., 2002; Hinson, 2006; Lovelock & Wirtz, 2007). These differences therefore require different strategic choices from managers when it comes to strategic issues such as innovation. The value creation process is also different as value is always co-produced by the deliverer and the receiver. Strategic issues such as innovation that determines the competitiveness of a service firm must therefore be viewed as such to help service firms accrue the maximum benefits of innovativeness. The Ghanaian

services industry which is the study's context constitute among other sub sectors such as the financial services sector, the telecommunications, hospitality, education, professional services, entertainment, trading, public administration, security, healthcare and transport sectors.

The purpose of this study is to explain the performance of service firms operating in an emerging economy, Ghana. As such the current study sample involves different types of service firms operating within Ghana, a lower-middle income sub-Saharan economy. Ghana has just broken into the lower middle-income status and has had services contributing significantly to its GDP over the past 5 years. The service sector has grown (from 40.2% 2009 last quarter to 51.2% 2014 first quarter) and has an annual growth rate of over 7% (Ghana Statistical Service, 2014).

The sampling frame for this study was developed from Ghana's banking institutions register with the Bank of Ghana, insurance companies registered with the Insurance Commission of Ghana, and the Ghana Business Directory for the other service sub-sectors. A sample frame for banking and insurance institutions were obtained from their regulators' website while the rest were taken from an online database called the Ghana Business Directory (GBD) (ghanaweb.com) as there were no accurate and updated lists available for the other sectors. The GBD provided detailed information about the firms that made it easy to contact them in person and via other means of communication that had been used in similar studies (see Acquah, 2007; Storey, Boso & Codogan, 2014). The use of a similar database has been used in similar innovation studies (Wang & Ahmed, 2004; Alam, 2011). While the sample for the banking sector was taken from the websites of Bank of Ghana (BoG) (bog.gov.gh), the insurance firms were taken from

National Insurance Commission (NIC) (nicgh.org). A total of 27 Universal Banks and 390 Micro Finance Institutions (the two extremes of banking service providers); and 106 Insurance Firms constituted by 18 Life, 26 General and 61 Brokerage firms were obtained. The list from the GBD had 558 business and management consultancy firms, 354 lodges and guesthouses, 741 media and communication firms and 204 general merchants. The total of all the eligible firms stood at 2,380; however, the study particularly focused on firms with active office(s) located in at least one of the three largest cities of Accra, Kumasi and Takoradi. A systematic sampling was applied to the final 1,881 firms in these cities constituting 285 banking institutions, 99 insurance firms, 397 consultancy (professional) firms, 372 guest houses and lodges, 564 media/communication firms and 164 retailers. Within each category of each sector, every third case was selected to be part of the study after they had been arranged in alphabetical order. Where a response was not forthcoming, the next firm was contacted. A total of 627 firms were obtained and management members from different departments within the service firm filled three questionnaires each as innovation is deemed to emanate from different parts of the organization (Sundbo, 1997). A questionnaire comprising the constructs' items on a seven-point Likert scale (1=strongly disagree; 7=strongly agree) was distributed. After two reminders and follow-ups, a total of 702 were received. After excluding those who significantly could not complete the questionnaire and those who were not in a management position, the final number came down to 508 which were used for the analysis of which 170 were from banking, insurance 62, consulting 47, media and communication 99, hospitality 51 and retailing 79.

4.4 MEASURES

4.4.1 Interactivity Innovation

There are no known scales for interactivity innovations, therefore the recommendations made by Hinkin (1995) and DeVellis (2003) are followed in developing and validating new scales. The construct was first defined and initial items designed and reviewed. The items were subsequently administered to a large sample in order to develop an internally consistent scale, and before scale validation using other samples as recommended by Spector (1992). The study started with a thorough and thoughtful item-generation process with initial literature search on the domain of innovation with extension to service and management studies that were related to innovation in general. A total of 20 items were generated from both literature and free construction based on the conceptual domain.

To ensure face validity, five marketing scholars with interest in relationship marketing helped as experts in the screening of the items for clarity, comprehensiveness and relevance. They were provided with the definition of the construct and its dimensions and were asked to evaluate each item and suggest additional items that comprehensively tap into the construct domain (DeVellis, 2003). This process resulted in the elimination of four and addition of two new items while three were rephrased. The revised pool of 18 items were pretested on 20 graduate students in a services marketing class in an item-sort task to ensure that all items were clear and comprehensible for the target group (service managers). Participants were instructed to carefully read each item and assign to the dimension that, according to their individual judgment, it best reflected. There was no need for a proportion of substantive agreement test as prescribed by Anderson and Gerbing (1991) as all of the items were rightly assigned to their respective dimensions

that reflect high content validity. This paved the way for scale purification through an exploratory factor analysis (EFA).

For scale purification, the study first tested the proposed measurement scale through management perception (Woodcock, Beamish & Makino, 1994) by collecting data from service managers who were students of a master's program (specifically Executive MBA and MBA students) at the oldest and biggest business school in Ghana. 300 questionnaires were distributed to the core classes and a total of 208 were returned after four weeks with a reminder; and replacement of questionnaires where needed on the second week. 123 were good for analysis after excluding those who significantly could not complete the questionnaire and those who did not work in the services sector. This number consisted of at least five managers from banking, insurance, consulting, telecommunication, retailing, hospitality, educational and health services which is highly representative of the services sector. The study followed best practices as suggested by Tull and Howkins (1994) and Churchill (1995) in performing an exploratory factor analysis. Factors were extracted through a principal component and on a varimax rotation and on the basis of the sample size, the criterion for the significance of the factor loading for the extracted common factor was stipulated to be greater than the absolute value of 0.5 suggested by Hair et al. (2007). The EFA produced a three-factor solution with Bartlett test ($\chi^2=1571.919$, $df=120$; $p<0.000$), KMO of 83.6% sample adequacy and 65.42% of total variance explained. The factors were named as factor 1 – customization with 4 items extracted; factor 2 – timing with 5 items and factor 3 – involvement with 5 items. These were subsequently used in the larger data collection for CFA and structural equation modeling. The final measures are displayed in Table 4.1 with their Cronbach alpha, AVE and composite reliability.

4.4.2 Service Firm Performance

Previous studies have identified financial and non-financial performance as major outcomes of innovation (Otero-Neira et al., 2009; Grawe et al., 2009). Accordingly, this research focused on financial and non-financial performance measures as key dependent variables. Measures of financial and non-financial performance are taken from existing scales (e.g. Akimova, 2000; Mahmoud, Kastner & Yeboah, 2010). The financial performance tapped into the service firms' managers' evaluation of their company's profit, market share, sales volume, return on investment and cash flow relative to their competitors. The non-financial performance tapped into service quality, customer satisfaction and employee satisfaction relative their competitors.

4.4.3 Customer Demand

Measures for customer demand are adapted from Calantone et al. (2002) and Alegre (2006) to assess the current level of demand from customers, their penchant for new product, price sensitivity and customers' product preference due to time change. Two items survived after the CFA were used to assess customer demand construct with $\alpha=.77$. Items were measured on a Likert scale ranging from 1 = strongly disagree to 7 = strongly agree.

4.4.4 Competitive Intensity

The conceptualization of competitive intensity is based on the works of Jaworski and Kohli (1993) and Deng and Dart (1994) to assess the level of competition within the industry, promotional wars, competitive moves and matching of competitive offers. Three items were finally used in this study with $\alpha=.79$ on a seven point Likert scale.

4.4.5 Control Variables

As was in the literature (e.g. Wang, 2008), the study controlled for firm size and firm age as having potential influence on the performance of service firms. The study measured the size by total number of full time employees and firm age by the number of years the firm had been in business and a natural logarithm transformation was taken.

4.4.6 Informant Evaluation

In line with established tradition (e.g. Morgan, Katsikeas & Vorhies, 2012), the study also assessed the competence of the respondents on three key areas: (1) knowledge about the questions asked; (2) accuracy of the answers provided; and (3) confidence in the answers provided. The informant competence measures were assessed on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree), and the average minimum score obtained was 5.5, which is very high and above Kumar's (1996) thresholds that advocate for retention of cases with individual responses above the mid-scale point of 4.0 in this study as a measure of high informant competency. The study is therefore confident that the key informants in this study are competent.

4.5 ANALYSES

4.5.1 Reliability and Validity and Measurement Model Analysis

To test the reliability and validity of the measures, the study used Amos 20 and the maximum likelihood estimation procedure to examine all scales in a confirmatory factor analysis (CFA). In order to avoid the risk of violating minimum sample to parameter ratios, the study followed conventional practices (e.g. Boso et al., 2013) to analyze the scales initially in subsets; thus, scales that were conceptually related were analyzed together (Baker & Sinkula, 1999). The three subsets of CFAs were designed to identify

any problematic indicators of the study's constructs. The first set of interactivity innovation included three components: customization innovation, involvement innovation and timing innovation. The second set thus, environmental variables were competitive intensity and customer demand; while the last set pertaining to firm performance was non-financial performance and financial performance. Construct measurement models and their fit indices are displayed in Table 4.2.

Following purification, several items were removed from the models. The final list of items is displayed in Table 4.1 with their respective standardized factor loadings and t-values and results of reliability and validity tests. The positive and significant loadings confirm convergent validity of the measures. Results also show that alpha reliability, composite reliability and discriminant validity of the variables are acceptable with indices exceeding the minimum cut-off point of 0.70, 0.60 and .05 respectively (Bagozzi & Yi, 2012). The measures also showed satisfactory discriminant validity by showing a larger average variance extracted being larger than the shared variance between constructs.

Exact model fit was then assessed using the chi-square (χ^2) test. Following Bagozzi and Yi (2012) and Boso et al. (2013) a number of approximate fit heuristics were also examined to provide additional information on model fit and the indices ranged from good to very good. Table 4.2 displays the results of all models estimated including the full model which had all items entered simultaneously to predict the measurement model (Cadagan, Cui, Morgan & Story, 2006). All factor loadings were positive and significant with good fit indices although the model was complex with a normed chi-square value of 1.91 ($\chi^2/DF=1984.873./1034.233$); and other fit heuristics were within acceptable cut-off

ranges – root mean square error of approximation (RMSEA) = .063, Tucker–Lewis index (TLI) = .91 and comparative fit index (CFI) = .93.

Table 4. 1 Constructs Measurement Items Reliability and Validity Tests

Item description	Loadings (t-values)
<i>Customization innovation: $\alpha = .91$; CR = .77; AVE = .69</i>	
We create special kinds of service experiences based on customer preferences	.85(fixed)
Our customers prefer to deal with us because we attend to their individual needs	.88(28.14)
Based on previous interactions with clients, we are able to customize a solution for subsequent transactions	.90(26.23)
<i>Involvement innovation: $\alpha = .87$; CR = .72; AVE = .63</i>	
We allow customers to direct the interaction during service delivery	.88(fixed)
We encourage our customers to help us in the production of the quality service	.83(20.01)
Our customers co-design and co-produce most of our products	.78(21.32)
<i>Timing Innovation: $\alpha = .90$; CR = .74; AVE = .61</i>	
Customers consider the timing of our service delivery as incomparable in the industry	.86(fixed)
We operate within hours that are convenient to customers	.87(24.90)
When our physical offices are closed, we find ways of meeting the timing needs of our customers	.86(24.66)
<i>Competitive intensity (): $\alpha = .79$; CR = .714; AVE = .52</i>	
➤ Competition in our industry is cutthroat	.84(fixed)
➤ Anything that one competitor can offer others can match readily	.68(6.67)
➤ One hears of a new competitive move almost every day	.73(7.58)
<i>Customer demand: $\alpha = .77$; CR = .73; AVE = .62</i>	
➤ Our customers tend to look for new products all the time	.94(fixed)
➤ In our kind of business, customers' product preferences change quite a bit over time	.75(5.88)
<i>Financial performance: $\alpha = .94$; CR = .89 ; AVE = .81</i>	
➤ Better profit	.90(fixed)
➤ Better sales volume	.90(24.41)
➤ Better market share	.80(25.24)
➤ Better return on investment	.86(23.88)
➤ Better cash flow	.80(23.88)
<i>Non-financial performance: $\alpha = .85$; CR = .71; AVE = .65</i>	
➤ Service quality	.87(fixed)
➤ Customer satisfaction	.89(17.51)
➤ Employee satisfaction	.78(15.83)
<i>Informant competency (Morgan et al., 2009)</i>	
➤ Questionnaire deals with issues I am very knowledgeable about	-
➤ My answers to the questions in the questionnaire are very accurate	-
➤ I am completely confident about my answers to the questions	-

Table 4. 2 Fit Indices for All Measurement Models

<i>CFA Models</i>	χ^2/DF	<i>RMSEA</i>	<i>TLI</i>	<i>CFI</i>
Measurement (set 1): customization innovation, involvement innovation and timing innovation	30.940/17=1.82	.040	.94	.97
Measurement (set 2): competitive intensity and customer demand	21.745/13=1.67	.054	.97	.98
Measurement (set 3): non-financial performance and financial performance	20.341/13=1.56	.033	.99	.99
Full Measurement (set 4)	1984.873./1034.233=1.91	.063	.91	.93

4.5.2 Common Method Analysis

As the data is collected based on self-reports, there existed the potential for the occurrence of common method bias (Krishnan et al., 2006). The study follows the recommendation of Podsakoff, MacKenzie, Lee and Podsakoff (2003), and conducted a Harman one-factor test and found that this model demonstrated a very poor fit, as indicated by fit indices ($\chi^2/DF=2041.223/635.243$; $TLI = 0.69$; $CFI = 0.75$; $RMSEA = 0.12$). This provided evidence that the common method bias is not a problem for this study.

4.5.3 Structural Model Analysis

To test the conceptual model, a structural equation modeling and a multiplicative approach to analyzing the moderating effect on relationships as recommended by Marsh et al. (2007) are employed. The study specifically followed Ping (1995) to create single indicants for each variable involved in multiplicative interactions as use of single indicants helps reduce model complexity. To assuage for possible multicollinearity problems due to the usage of interactive terms, all measures involved in multiplicative interactions were orthogonalized as in the case of Little et al., (2007) and per recommendations made by Ping (1995). The study then estimated structural equations 1

and 2 simultaneously following Ping's (1995) recommendation to determine the impact of the independent variables on non-financial performance, and financial performance.

$$\begin{aligned} \text{Financial performance} = & (\text{firm size} + \text{firm age}) + (\text{CD} + \text{CP} + \text{CI} + \text{II} + \\ & \text{TI}) + (\text{II} \times \text{CI} + \text{II} \times \text{TI} + \text{II} \times \text{CD} + \text{II} \times \text{CP} + \text{CI} \times \text{TI} + \text{CI} \times \text{CP} + \text{TI} \times \text{CP} + \\ & \text{CD} \times \text{CP}) + (\text{CI} \times \text{II} \times \text{TI} + \text{CI} \times \text{II} \times \text{TI} \times \text{CD} + \text{CI} \times \text{II} \times \text{TI} \times \text{CP} + e \end{aligned}$$

(Eq. 1)

$$\begin{aligned} \text{Non financial performance} = & (\text{firm size} + \text{firm age}) + (\text{CD} + \text{CP} + \text{CI} + \text{II} \\ & + \text{TI}) + (\text{II} \times \text{CI} + \text{II} \times \text{TI} + \text{II} \times \text{CD} + \text{II} \times \text{CP} + \text{CI} \times \text{TI} + \text{CI} \times \text{CP} + \text{TI} \times \text{CP} + \\ & \text{CD} \times \text{CP}) + (\text{CI} \times \text{II} \times \text{TI} + \text{CI} \times \text{II} \times \text{TI} \times \text{CD} + \text{CI} \times \text{II} \times \text{TI} \times \text{CP} + e \end{aligned}$$

(Eq. 2)

Where *CD* = customer demand; *CP* = competitive intensity; *CI* = customization innovation; *II* = involvement innovation; *TI* = timing innovation.

Having specified the structural equations, a series of four restricted hierarchical models were then estimated. Model 1 was first estimated whereby only the two control variables were allowed to be estimated: then Model 2 was estimated in which control variables and main effect variables only were estimated. In Model 3, the control variables, main effect variables and two-way interaction variables were freely estimated. Then, a fully unrestricted model was estimated in Model 4 in which all variables (including hypothesized paths) were freely estimated. The three restricted models (i.e. Models 1 to 3) were compared with the unrestricted model (i.e. Model 4) by observing variations in model fits and R^2 change.

4.6 RESULTS

As displayed in Table 4.3, the variations in the model fits and R^2 change indicated that Model 4 (i.e. hypothesized model) fitted the data better and provided a non-trivial improvement over and above the restricted models, and, as such, was used in assessing

the study's hypotheses. Additionally, Model 4 explains 58% of variance in non-financial performance and 57% in financial performance, values that are substantially superior.

Furthermore, Table 4.3 provides the standardized parameter estimates and significance levels for each path in the four models tested. In respect of the hypotheses, H1 argues that interaction among the three interactivity innovations is positively related to service firm performance in an emerging economy. H1 is supported as the product term for CI, II and TI (i.e. CI x II x TI) is positive and significant for both non-financial performance ($\gamma = .304$; $p < .001$) and financial performance ($\gamma = .297$; $p < .001$). The study therefore finds support for the notion that high levels of interactivity innovations, in combination, drive superior performance in service firms. The study hypothesized in H2 that the service firm's performance is maximized when interactivity innovations and customer demand are all high for a service firm operating in an emerging economy. The study finds support for H2, as the product term involving CI, II and TI, and customer demand (CI x II x TI x CD) is positive and significant for both financial performance ($\gamma = .177$; $p < .01$) and non-financial performance ($\gamma = .294$; $p < .001$). This supports the assertion that the deployment of high levels of interactivity innovations in a period when customer demand is high is significantly associated with high performance among service firms in emerging economies. H3 sought to assess the performance benefit of high levels of interactivity innovations in a high competitive intensity market. The study finds partial support for H3 as the relationship is only significant with financial performance. The study finds support for the view that the relationship between interactivity innovation and financial performance is inverse as the product term of involving CI, II and TI, and competitive intensity (CI x II x TI x CP) is negative and significant for financial performance ($\gamma = -.138$; $p < .01$).

To better understand the nature of the fits between interactivity innovations, customer demand, and competitive intensity; the study followed Aiken and West (1991) to plot the interactivity effect using sub-group analyses. Interactivity innovation is plotted against financial and non-financial performance outcomes for high and low values of customer demand and competitive intensity. As Figure 4.2a indicates, higher financial performance is associated with high values of interactivity innovation and customer demand as opposed to smaller values. Figure 4.2b also shows that superior non-financial performance is associated with high values of interactivity innovation and customer demand as opposed to smaller values. These two findings suggest that financial and non-financial performance outcomes are greater when high levels of interactivity innovations and customer demand is aligned in a service firm operating in Ghana. However, as indicated in Figure 4.2c, a high level of competitive intensity dampens the positive relationship that exists between interactivity innovation and a service firm's financial performance in an emerging economy.

In a post-hoc analysis, the study establishes the robustness and extendibility of the model by examining an alternative complementary conceptual model. In specific terms, the study explores whether customer demand and competitive intensity act independently of each other, or act together, to affect performance outcome of the individual interactivity innovation and/or their interaction. What is added to the hypothesized model in Model 5 are $CI \times CD \times CP$, $TI \times CD \times CP$, $II \times CD \times CP$ and $CI \times TI \times II \times CD \times CP$. This is done such that, should any of the added path turns out to be positive and significant, this will mean that competitive intensity and customer demand act together to affect performance. As indicated in Table 4.3, none of the paths were positively significant; hence the

external environmental moderators separately affect performance of service firms in Ghana.

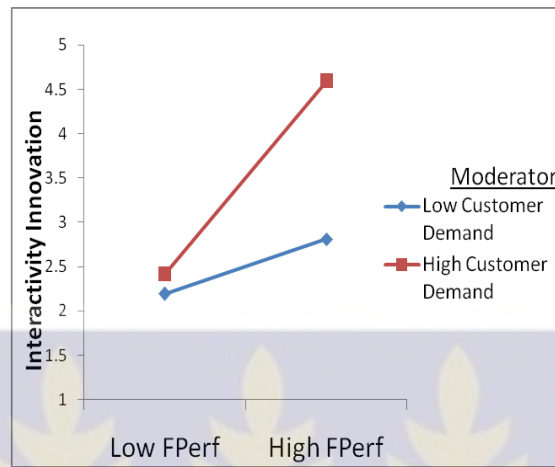


Figure 4. 2 a: Moderation effect of customer demand on financial performance

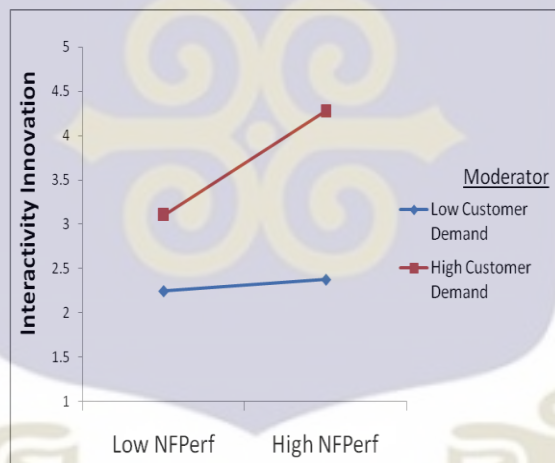


Figure 4. 2b: Moderation effect of customer demand on non-financial performance

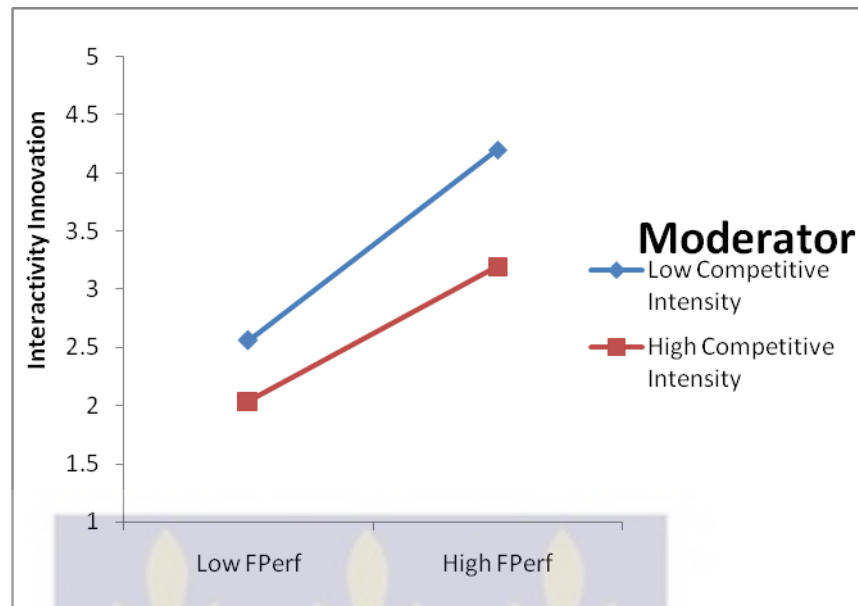


Figure 4. 3: Moderation effect of competitive intensity on financial performance

4.7 DISCUSSION

The purpose of this study is to examine whether service firms accrue performance benefits aligning high levels of interactivity innovations and, of particular relevance, for service firms operating in a developing economy context. The study sought to ascertain whether those potential benefits for service firms are affected in periods of high customer demand and high competitive intensity. Accordingly, the study models the effects of a configuration of three interactivity innovation (customization, involvement and timing innovations), and customer demand and competitive intensity on two performance outcomes – financial and non-financial performance. The findings raise key implications for research and managers.

The study found that unlike previous studies (Otero-Neira et al., 2009; Grawe et al., 2009) that indicate that service innovation is directly related to firm performance, it is rather high levels of service innovations that maximize performance in service firms operating in an emerging economy. The current study presents a response to the call for

an investigation into different contexts in the area of strategy implementation (Li & Zhous, 2010) and provides answers to the question of using data from an emerging economy on service innovation as a strategic option. The findings show that for service firms operating in a developing economy, customization, involvement and timing innovations are important in enhancing business success most effectively when high levels of interactivity innovations are leveraged. Greater levels of service innovations are required for both financial and non-financial performance. However, these strategic activities come with uncertainties and implementation risks especially in emerging economies where the immense growth opportunities are characterized by high customer expectations and demand and highly competitive markets. While implementing the individual interactivity innovations that can accrue performance benefits to a service firms, it is important to configure the three in order to account for the risks that may come with individual implementation. The implication, therefore, is that high levels of interactivity innovation in combination can complement each other to enhance a service firm's performance in an emerging economy context.

The results also show that certain conditions outside of the firm, in the form of customer demand and competitive intensity, influence the effect of service innovation on the performance benefits. This novel contribution to the service innovation literature made by the current study indicates that the implementation of service innovation can be maximized when environmental conditions are aligned to the implementation of interactivity innovations. Consumers' demand for and acceptance of innovation is considered critical to the performance effect of such innovation. The current study agrees with Alegre (2006) and Calantone et al. (1995) that in today's global and dynamic competitive environment, innovation is deemed to be extremely important as a result of

demanding markets and that high customer demand positively influences the performance effect of innovation. As customer expectations are crucial to innovation implementation (Saemundsson & Candi, 2014), service firms are advised to understand the market demand situation before implementing service innovation such as interactivity innovations.

Previous research indicates that the hyper-competition the modern business environment is witnessing requires firms to innovate (Grawe et al., 2009) and that intense and rapid competitive moves require firms to continuously innovate to create new advantages (Dess & Picken, 2000). Despite the call for innovation in competitive environments, the current study reveals that high level competitive intensity dampens the positive relationship that exist between interactivity innovation and a service firm's financial performance in an emerging economy. The implication is that in an emerging economy such as Ghana, the implementation of service innovation in the form of interactivity innovations must consider the level of competitive intensity in order to accrue financial performance benefits. The current study shows that it is effective for service in such a context to implement high levels of interactivity innovations in low competitive intensity periods or reduce investments in interactivity innovation during high competitive periods.

4.8 CONCLUSION, LIMITATIONS AND IMPLICATIONS

The study shows that an alignment of high levels of interactivity innovations in the period of high customer demand and competitive intensity produces differential performance outcomes for service firms in an emerging economy such as Ghana. Customer demand, in particular, was found to play a significant role in shaping the

positive relationship between a firm's interactivity innovations and business success. However, competitive intensity as an external environmental condition shapes the service innovation-firm's performance relationship in a negative manner as high competitive intensity dampens the positive relationship in the context of Ghana.

The implications for service firms' managers are that: (a) the implementation of interactivity innovations must be configured and implemented in combination to maximize its performance effect; (b) in the period of high customer demand, service firms can maximize the performance effect of interactivity innovations by increasing the level of interactivity innovations; and (c) in the period of high competitive intensity, service firms must reduce their investments in the combination of interactivity innovations in order to avoid reduction in financial performance.

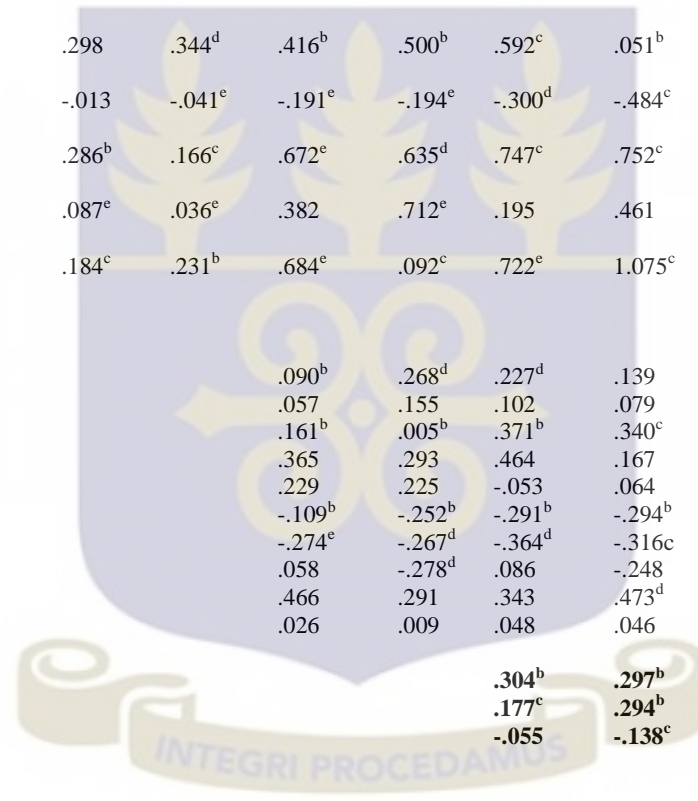
The findings from this study offer several avenues for further research in particular for those that seek to understand the adoption of and the implementation of service innovation particularly in a developing economy context. The question that begs to be answered is the generalizability of findings, especially the importance of moderating effects of customer demand and competitive intensity in different contexts such as economies that are at different stages of economic development. To broaden our understanding of the issues in service innovation and performance on one hand and the moderating environmental conditions on the other hand, additional research is required to clarify the extent to which such conditions shape the relationship between interactivity innovation and performance outcomes.

Lastly, the current study is situated in Ghana, a single emerging, lower middle income economy and a relatively small country which shares many characteristics with other developing and emerging economies; and therefore offers a rich context to test the impact of service innovation on performance – a strategic orientation theory – from an emerging economies perspective (Acquaah, 2007). However, other markets which have higher levels of income and a larger GDP may possess some peculiarities and contextual elements that may allow for additional insight and theory development. Further research may consider exploring the effect of cultural factors that may influence the success of implementing interactivity innovations across emerging economies in order to incorporate into service innovation management an additional variable that varies at the national level.



Table 4.3 Results on Hypotheses Testing

Independent Variables	Standardized estimates										Findings
	Model 1		Model 2		Model 3		Model 4		Model 5		
	NFPerf	FPerf	NFPerf	FPerf	NFPerf	FPerf	NFPerf	FPerf	NFPerf	FPerf	
<i>Control paths</i>											
Firm size	.071	.061	.063	.039	.018	.016	.040	.047	.044 ^b	.058 ^c	
Firm age	-.066	.055	-.066	.065	-.045	.070 ^d	-.073 ^d	.040	.006	.089 ^d	
<i>Main effects paths</i>											
Customer Demand (CD)			.298	.344 ^d	.416 ^b	.500 ^b	.592 ^c	.051 ^b	.060	.075	
Competitive Intensity (CP)			-.013	-.041 ^e	-.191 ^e	-.194 ^e	-.300 ^d	-.484 ^c	.011	-.022 ^c	
Customization Innovation (CI)			.286 ^b	.166 ^c	.672 ^e	.635 ^d	.747 ^c	.752 ^c	.108	.080 ^d	
Involvement Innovation (II)			.087 ^e	.036 ^e	.382	.712 ^e	.195	.461	.061	.060	
Timing Innovation (TI)			.184 ^c	.231 ^b	.684 ^e	.092 ^c	.722 ^e	1.075 ^c	.090	.093	
<i>Two-way interaction paths</i>											
II x CI					.090 ^b	.268 ^d	.227 ^d	.139	.139 ^d	.148	
II x TI					.057	.155	.102	.079	.117	.114	
II x CD					.161 ^b	.005 ^b	.371 ^b	.340 ^c	.449	.041	
II x CP					.365	.293	.464	.167	.085	-.737	
CI x TI					.229	.225	-.053	.064	.131	.119	
CI x CD					-.109 ^b	-.252 ^b	-.291 ^b	-.294 ^b	.365	-.277 ^d	
CI x CP					-.274 ^e	-.267 ^d	-.364 ^d	-.316 ^c	-.353	-.311 ^b	
TI x CP					.058	-.278 ^d	.086	-.248	-.269	-.287	
TI x CD					.466	.291	.343	.473 ^d	.412	.178	
CD x CP					.026	.009	.048	.046	.028	.080	
<i>Hypothesized Model</i>											
CI x II x TI							.304 ^b	.297 ^b	.345 ^b	.222 ^b	Supported
CI x II x TI x CD							.177 ^c	.294 ^b	.166 ^d	.331 ^b	Supported
CI x II x TI x CP							-.055	-.138 ^c	-.042	-.088 ^d	Partially supported
<i>Post Hoc Analysis Path</i>											
CI x CD x CP									-.004	-.044 ^b	
TI x CD x CP									.465	-.159	
II x CD x CP									-.424	.430	
CI x TI x II x CD x CP									.006	-.178 ^d	



Goodness of fit indicators

R ²	13%	15%	34%	36%	39%	42%	58%	57%	58%	59%	58%
Chi-square/DF	267/150=1.78		245.147/142=1.73		224.188/133=1.68		202.442/129=1.56		237.147/135=1.75		
RMSEA	.071		.070		.064		.061		.074		
TLI	.915		.952		.965		.997		.971		
CFI	.934		.994		.966		.998		.998		

Critical t-value for hypothesized paths = 1.642 (5% one-tail tests)

DF = degrees of freedom; FPerf = Financial performance; NFPPerf = Non-financial performance

A Model 5 is run in a post hoc analysis to further establish the robustness of Models 1 through 4.

^b p < .001 ^c p < .01 ^d p < .05 ^e p < .10

Table 4. 4 Descriptive Statistics and Inter-construct Correlation

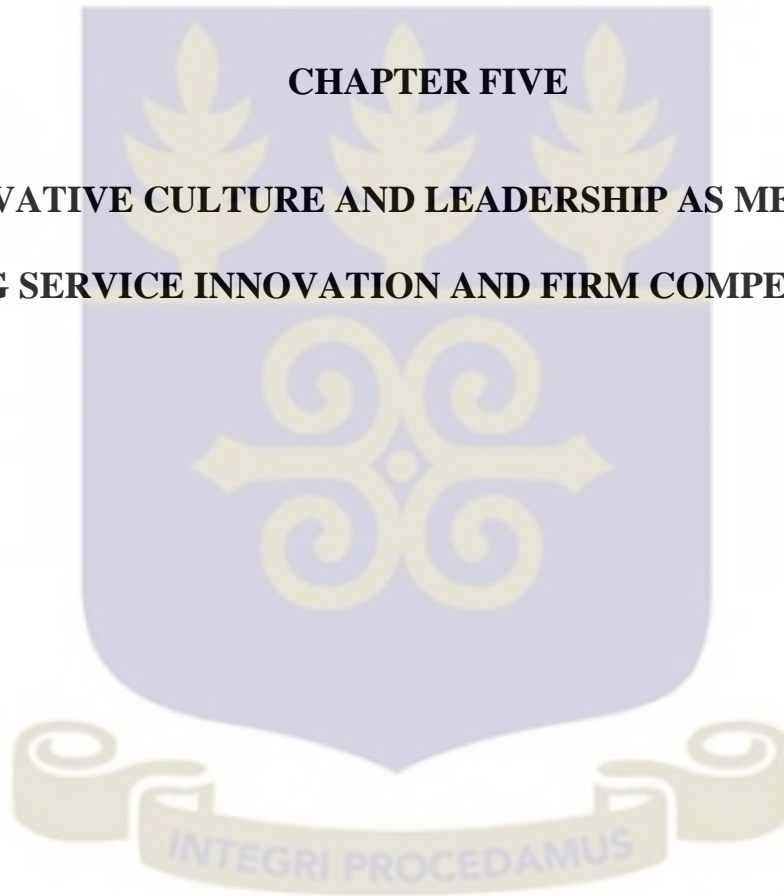
Pearson correlation coefficient estimated on the sample of respondents implies 5% significance or more. The mean and standard deviation figures also describe the data

Variables	1	2	3	4	5	6	7	8	9
1. Firm Size	1								
2. Firm Age	.346**	1							
3. Competitive Intensity	.053	.121**	1						
4. Customer Demand	.082*	.056	.152**	1					
5. Customization Innovation	-.016	.062*	.058*	.251**	1				
6. Involvement Innovation	.029	.046	.112**	.283**	.505**	1			
7. Timing Innovation	.046	.017	.099**	.255**	.453**	.425**	1		
8. Financial Performance	.079*	.102**	.067*	.383**	.376**	.408**	.434**	1	
9. Non-Financial Performance	.044	.005	.043	.342**	.413**	.380**	.431**	.588**	1
Mean	1.58	2.54	5.01	4.85	4.58	4.35	4.75	4.90	4.97
Standard deviation	.78	.60	1.06	1.18	1.43	1.37	1.43	1.20	1.23

*p < 0.05 **p < 0.01

CHAPTER FIVE

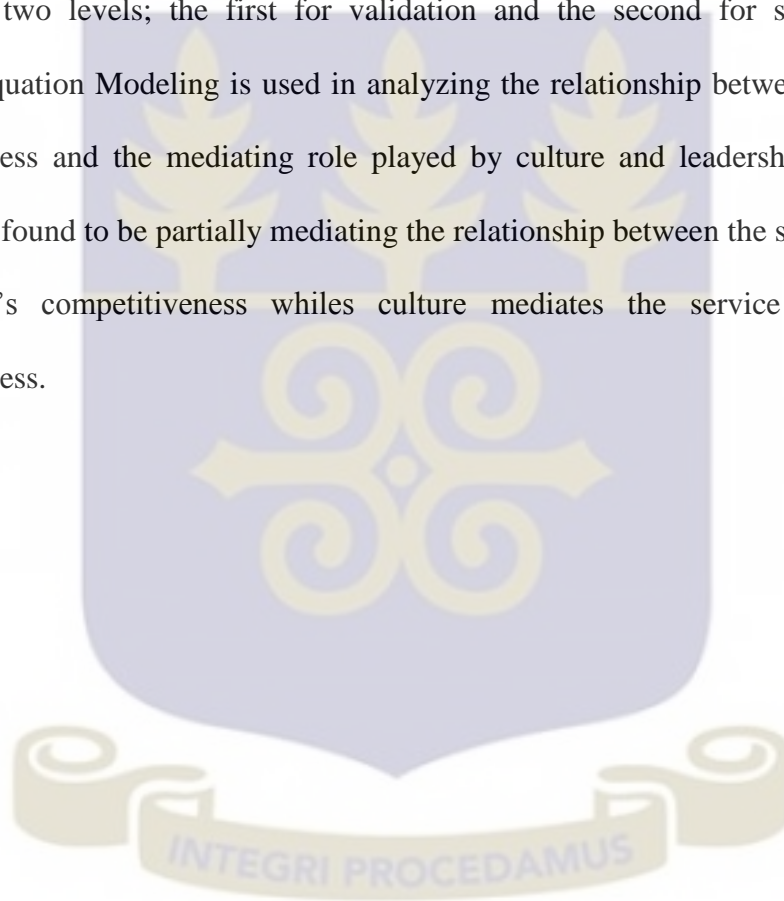
**INNOVATIVE CULTURE AND LEADERSHIP AS MEDIATORS
LINKING SERVICE INNOVATION AND FIRM COMPETITIVENESS**



**INNOVATIVE CULTURE AND LEADERSHIP AS MEDIATORS LINKING
SERVICE INNOVATION AND FIRM COMPETITIVENESS**

Abstract

The chapter analyses the effect of service innovation on firm competitiveness and the how such relationship is mediated by organizational culture and leadership. Data is collected and analyzed at two levels; the first for validation and the second for structural analysis. Structural Equation Modeling is used in analyzing the relationship between innovation and competitiveness and the mediating role played by culture and leadership. Organizational leadership is found to be partially mediating the relationship between the service innovations and a firm's competitiveness whiles culture mediates the service innovations and competitiveness.



5.1 INTRODUCTION

Several innovation studies have focused on technological innovation within manufacturing. It would be argued that innovation theory gained root in a time where manufacturing was the major economic activity (Drejer, 2002). The study of the innovation phenomenon in organizations has largely been in the traditional setting where the manufacturing sector has been the main focus (Van der Aa and Elfring, 2002; Pujari et al., 2004; Stokes, 2014) while others have looked at the subject in terms of technological breakthroughs (Abernathy and Utterback, 1978; Moser and Morrissey, 1984; Troilo, et al., 2014). Even though the services sector has been seen to be generating a lot more towards nations' GDP and has outdistanced manufacturing from an employment perspective (Menor et al., 2002), manufacturing has still continued to dominate innovation studies (Jaw et al., 2010; McDermott and Prajogo, 2012). Though service innovation is a primary source of competitive advantage and a research priority, empirical evidence in this area is inconclusive (Ostrom et al. 2010; Ordanini, et al., 2014).

While traditional technological-manufacturing centered innovation has a history going back over a century, innovation in service firms appeared about three decades ago with authors like Gershuny and Miles (1983) and Barras (1986) beginning to consider innovation potential in services. It was not until the 1990s that patterns emerged with taxonomies of the subject (Gallouj and Weinstein, 1997; Evangelista and Savona, 2001; Gallouj, 2002). Recently, attempts have been made by other scholars to explain the patterns and types of innovation in service firms (see Camacho and Rodriguez, 2005; Ritter, 2006; Hortelano and Gonzalez-Moreno, 2007; Ko and Lu, 2010; Agarwal and Selen, 2011). In spite of the recent

attention being paid to the subject, it is believed that innovation in service is still in a relatively early development stage compared with manufacturing and technology (Bitner, Ostrom, and Morgan, 2008). Moreover, the logic of the traditional manufacturing approaches (assimilation option) to innovation is still applied to service firms alongside approaches that view services as distinctive activities (demarcation option) while a synthesis approach is being called for (Cooms and Miles, 2000). This has led to some apparent confusion regarding the conceptualization and the forms of innovation in service firms. Ordanini, et al., (2014) indicate that plausible explanation is that service innovation has thus far been studied using new product frameworks that do not fully capture the complexity of new service.

The evolution and nature of service innovation are in contention in the innovation literature (McDermott and Prajogo, 2012). This may be due to lack of proper delineation of the service innovation concept and theoretical grounding and the right level of analysis (i.e. the firm and not the industry). This has led to lack of empirical research into how innovation in service firms can create competitive advantage and an imposition of practical limitation to the implementation of service innovation. This has led to what den Hertog, van Aa and de Jong (2010) call lack of or less direct and observable relationship between service innovation and business performance. McDermott and Prajogo (2012) also point that observers are at a loss as to where to look for the innovation in the management of service firms coupled with its measurement problems. It is in this light that this paper makes a contribution by proposing testable innovation dimensions in service firms grounded in organizational and service management theories. The study also empirically tests these

forms of service innovation through a series of activities. In an orderly manner, the paper shows how service firms can build innovations through internal capacities reflected in the form of service mix. The paper goes through the scale development process suggested by Hinkin (1995) and DeVellis (2003) and tests these scales on different samples to ensure reliability and validity.

The second part of the paper assesses the relationship that exists between a service firm's competitiveness and the service innovation dimensions. The paper makes a contribution in this regard by arguing that the much emphasized performance benefits of innovation strategy (Li and Atuahene-Gima, 2001; Grawe, et al., 2009; Pantano and Viassone, 2014) are contingent on certain internal firm factors that mediate such relationships. The paper argues that the cultural and leadership orientation of service firms will determine whether service innovation as a strategic option will yield the needed performance outcome. In spite of the fact that innovation greatly enhance a firm's competitiveness (see Darroch and McNaughton, 2002; Crossan and Apaydin, 2010), the internal institutional workings under which innovation is most effective and where such levels of competitiveness is achieved remains less appreciated in the literature.

The current study examines the institutional limits and conditions within which innovation is the most useful management tool and to establish the extent to which its efficacy is conditioned by innovative culture and leadership of the service firm. This examination is done in an emerging economy that has received less attention in respect of service

innovation research. The key benefits and costs of investing service innovation in such economies are unknown. This study accounts for such a gap by asking the question: how do internal institutional workings such as innovative culture and innovation leadership mediate the relationship between a service firm's competitiveness and service innovation? An answer to this question will mean that a contribution is made in respect of the mediating effects of culture and leadership on service innovation and competitiveness relationship which is under research. Additionally, the lack of research into innovation in service firms in emerging market contexts is telling. The literature indicates that the beneficial effects of a firm's strategic orientation may be context specific as opposed to being universally applicable (e.g. Li and Zhou, 2010). Hence, taking a cue from the contextual disparities of emerging economy contexts, the current study brings to the presents how service innovation impacts on competitiveness in emerging economies such as Ghana. The next section of the paper deals with theoretical foundation and hypotheses followed by methodology; discussions; and conclusion with managerial implications, limitations and recommendations for future research.

5.2 THEORETICAL BACKGROUND AND HYPOTHESIS

Given that innovation is a strategically determined process for service firms (Sundbo, 1997) targeted at newness; this study draws on a change-oriented theoretical perspective that deals with the creation of new value streams. The dynamic capability view from the broader resource and capability school is seen to offer a new perspective from which to approach service innovation (Carlborg, Kindstrom and Kowalkowski, 2014). Salunke, Weerawardena, and McColl-Kennedy (2013) posit that dynamic capabilities are the antecedent

organizational and strategic routines by which managers alter their resource base - acquire and shed resources, integrate them together, and recombine them - to generate new value-creating strategies (Grant, 1996), which essentially is an act of innovation (Porter, 1990). Service innovation can consequently be best conceptualized through the dynamic capability view (Eisenhardt and Martin, 2000) as it posits that different resource bases among firms provide the source of variation for innovations (Crossan and Apaydin, 2010).

Following from Teece, (2007), dynamic capabilities are defined in this paper as the capacity of the service firm to purposefully create, extend or modify resources, capabilities and/or routines to pursue improved efficiency and effectiveness and achieve competitiveness and higher overall firm performance. By adopting the dynamic capabilities theory to service innovation, this study contributes to how resources/capabilities are developed, deployed, integrated within the service firm, and released and reconfigured in terms of innovations which have been under-explored in the literature (Eisenhardt and Martin, 2000). The focus of change in the dynamic capabilities perspective allows firms to deal with continuous changes in the business environment and competitive landscape (Winter, 2003) that may render resources possession a non-competitive option. Underpinning these dynamic capabilities are micro-foundations that are defined as distinct skills, processes, procedures, tools, organizational structures, decision rules, and disciplines (Teece, 2007). The service firm has assets, processes, skills, procedures, systems, tools and knowledge that enable it to develop and implement strategies (service innovation) to improve efficiency and effectiveness (Grawe et al., 2009). We posit that the service firms can build/create service

innovations through its service mix that represents its basic competitive tools, systems, skills, processes, structures and procedures.

5.2.1 Service Innovation and Competitiveness

Definitions of service innovation that are limited to only the service offering or service process are inadequate (Carlborg, et al., 2014). The process of service innovation is usually influenced by many obscure and not easily recognizable factors other than the innovation process of tangible production activities in traditional manufacturing industries (Lu, Yang and Tseng, 2009). The call for the synthesis approach (Coombs and Miles, 2000) helps to determine the obscure and neglected aspects, activities and routines that are specific to service firms rather than seeing it either essentially similar to or completely different from innovation in manufacturing. It is in this respect that we see the service mix as offering a viable and competitive service innovation avenue. We contend that for a service firm to develop a service innovation, it must look for innovation through its service mix (product, price, promotion, distribution, physical evidence, process and people). Kotler and Armstrong (1989) see the mix as a set of controllable tactical marketing tools that the firm blends to produce the response in the target market. They represent primary service innovation development conduits and/or outputs as they present themselves as the basic tools, avenues, opportunities and capabilities for competitive advantage development and constitute the internal capabilities. The service firm's ability to develop internal competencies through the service mix innovations brings about improved efficiency and effectiveness (Grawe et al., 2009).

Service firms can innovate by offering an important new core benefit (service product) (Berry, Shankar, Parish, Cadwallader and Dotzel, 2006) and by breathing new life into existing products as well as come up with entirely new service offerings that are either new to the firm, customers or the market. On the issue of price, service firms can look for price innovation through variation in cost charged to customers according to their specific needs, the ability to pay, price-volume relationship, demand patterns, market conditions and competition. Service innovation based on price looks for creating customer value through price variations, value in quality customers pay for, value in everything a customer wants in a service and value in all that the customer gets for all that is given (Zeithaml, Parasuraman and Malhotra, 2006). Service innovation based on promotion targets creating the desired impression about the service offerings and experiences by providing cues that affirm the nature of the experience that must be expected. Communication that explores new frontiers in media, message type and adequately address the needs and the changing media consumption pattern in the market that create uniqueness and competitiveness.

Service innovation based on distribution reflects the extent to which the service firm is able to respect the location and distribution needs of the customer. Service firms innovate through flexible service delivery arrangements by allowing customers to choose their location or agreeing with customers where it is the most convenient. Service innovations allow service firms to create intimacy with customers in the form of social bonds which become difficult to imitate. Service innovations through physical evidence emanate from the direct contact of the customer with all the impersonal elements of the service firm. Service innovations that rely on physical evidence have the potential to positively affect the sensory systems of the target customers. Physical evidence innovations emphasizes a customer's

positive disposition to the favoring conditions and facilities to put people at ease and encourage them to savor the service experience and not just focus on task-oriented activities (Csaba and Askegaard, 1999).

In terms of process innovation, Damanpour (1991) suggests that it involves creating and improving the method of production, and the adoption of new elements (e.g. input materials, task specifications, information flow, and equipment) to the firm's production process (Gallego, Rubalcaba, and Hipp, 2013). Service process innovation therefore is the extent to which service firms alter their service systems to enhance value delivery. On people innovation, it must be reckoned that consumers make judgments and deliver perceptions of the service quality based on the personnel they interact with either directly or indirectly. An important part of a service firm innovation is through the personnel involved in the service production and delivery. People innovations concern employees' dexterity to adapt to changing situations to meet customer/market demands as a result of their intellectual capacity and skills.

Innovation is seen as an important tool in a modern business environment characterized by hyper-competition (Otero-Neira et al., 2009). The survival of firms has been thought to be dependent on the firm's ability to gain competitive advantage through innovation which requires flexibility, adaptability and responsiveness (Atuahene-Gima, 2005). It is suggested that an organization's propensity to innovate is a type of dynamic capability which contributes to competitive advantage (Helfat et al., 2007). Intense competition requires firms to continuously innovate to create new advantages (Dess and Picken, 2000). Service

innovation has been empirically linked with competitiveness and is considered a necessary strategic tool for firms wanting to remain competitive and relevant (Darroch and McNaughton, 2002; Grawe et al., 2009).

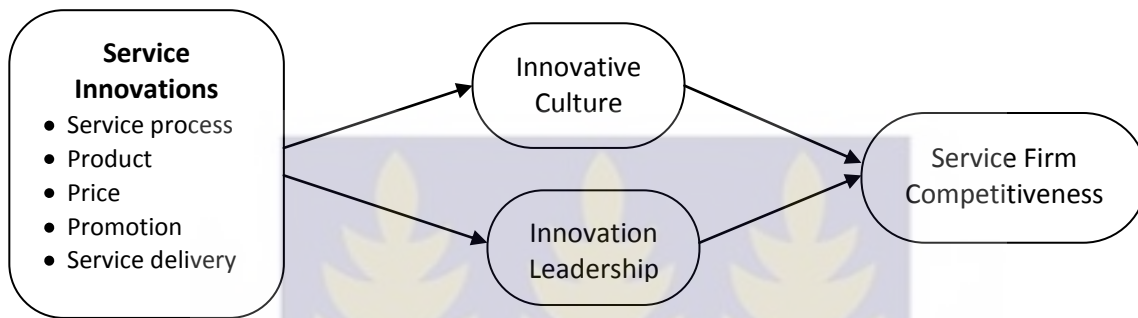


Figure 5.1: Research Model

5.2.2 Innovative Culture

Organizational culture (OC) lies at the heart of organizational innovation (Tushman, et al., 1997). Gaynor (2002) noted that innovation does not require genius, but does require a system-wide dedication to pursue unique opportunities and this system-wide dedication is always inspired by the culture of the organization. Sundbo (1997) explain that what exerts influence on the firm's strategy (i.e. service innovation) are the internal organizational arrangements and the relationships among the various parts of the firm: and what underlies this arrangement of parts and group relationships within the firm is the organizational culture. OC is defined as the deep (often subconscious) values and beliefs shared by personnel in an organization (Martins and Terlanche, 2003). As innovation is deemed to emanate from all parts of the firm (Sundbo, 1997), we posit that service innovation's ability to produce performance benefits is influenced by how innovative the organizational culture is within the firm as OC supports strategy implementation. OC creates the fundamental

service philosophy of the service firm that eventually determines the tolerance for, the development of, and implementation of service innovation. A service firm that is high on innovative culture creates an environment that encourages autonomy and calculated risk taking (Crossan and Apaydin, 2010) which are necessary ingredients for successful innovation strategy implementation (Sundbo, 1997). We therefore make the following hypotheses that:

H1a: a service firm's innovative culture mediates the positive effect of service process innovation on a firm's competitiveness

H1b: a service firm's innovative culture mediates the positive effect of product innovation on a firm's competitiveness

H1c: a service firm's innovative culture mediates the positive effect of price innovation on a firm's competitiveness

H1d: a service firm's innovative culture mediates the positive effect of promotion innovation on a firm's competitiveness

H1e: a service firm's innovative culture mediates the positive effect of service delivery innovation on a firm's competitiveness

5.2.3 Innovation Leadership

The role of leadership at all levels of an organization, although sometimes tacit, is important for spearheading innovation as a process and maintaining its momentum until innovation as an outcome ensues (Crossnan and Apaydin, 2010). Although OC explains the service firm's

ability to create a constellation of events and steps among its functional areas, it is leaders who create and drive the innovative culture. The leaders and drivers of the organization create the right culture and institutional structure and provide the adequate resources and motivational drive to deliver a successful innovation implementation (Brown and Anthony, 2011).

Organizational innovation leadership influences the service philosophy of continuous search for novelty in value creation. As the upper echelon theory states, organizational outcomes, strategic choices and performance levels are partially predicted by top managerial conduct and background characteristics (Hambrick and Mason, 1984). Hambrick (2007) espouses that if we want to understand why organizations do the things they do, or why they perform the way they do, we must consider the biases and dispositions of their most powerful actors—their top executives; as top management teams in a firm have substantial discretion in determining the future strategic contour of the firm (Child, 1972). Other studies have suggested that business leaders explain about 5–20 per cent of variance in company profitability (Crossland and Hambrick, 2007; Crossan and Apaydin, 2010). Not only is the support and guidance of business leaders vital in promoting innovative efforts across different functional areas, it also contributes to effective interactions among group members (West, Borrill, Dawson, Brodbeck, Shapiro and Haward., 2003); but what is equally important is their ability to create conditions for the subsequent implementation of innovation (Mumford and Licuanan, 2004) which will enhance competitiveness. We therefore hypothesize as follows:

H2a: a service firm's innovation leadership mediates the positive effect of service process innovation on a firm's competitiveness

H2b: a service firm's innovation leadership mediates the positive effect of product innovation on a firm's competitiveness

H2c: a service firm's innovation leadership mediates the positive effect of price innovation on a firm's competitiveness

H2d: a service firm's innovation leadership mediates the positive effect of promotion innovation on a firm's competitiveness

H2e: a service firm's innovation leadership mediates the positive effect of service delivery innovation on a firm's competitiveness

5.3 METHODOLOGY

5.3.1 Study Setting, Sample and Data Collection

Over a decade ago, Yavas, Bilgin and Shemwell (1997) observed that the service sector in many developing countries was undergoing changes in order to keep up with world trends. It comes as no surprise that within the last few years; the banking, telecommunication, media, hospitality and insurance sectors for example have grown in Ghana. The consequence of these reforms in the service sector, coupled with political and economic stability, has led to the emergence of diverse types of service institutions in Ghana over the last decade (Owusu-Frimpong, 2008; Narteh and Owusu-Frimpong, 2011). Firms within this sector are jockeying for positions to attract customers and improve their performance and have therefore resorted to various innovations as the way forward. This study is interested in

finding out how, in the face of competition, service firms innovate along their service mix to improve their competitiveness; and the boundary conditions that mediate the relationship.

A sample was taken from 1,881 service firms that are located in the three largest cities of Ghana, namely, Accra, Kumasi and Takoradi. Samples of service firms were drawn from banking institutions, insurance, consulting firms, hotels and lodges, media and communication firms and retail institutions. Samples from the banking and insurance institutions were drawn from the database of their regulators while the rest were taken from an online database called the Ghana Business Directory (GBD) (ghanaweb.com) as there were no accurate and updated lists available for the other sectors. Other studies on Ghana have used the same database (see Acquah, 2007; Story, et al., 2015) while similar databases have been used in other innovation studies (Alam, 2011).

A systematic sampling was applied to the 1,881 firms that consist of 285 banking institutions, 99 insurance firms, 397 consultancy (professional) firms, 372 guesthouses and lodges, 564 media/communication firms and 164 retailers. Within each category of the various sectors, every third case was selected to be part of the study after the list had been rearranged in an alphabetical order. Where a response was not forthcoming, the next case was contacted. A total of 627 firms were obtained and management members from different departments within the service firm filled three questionnaires each as innovation is deemed to emanate from different parts of the organization (Sundbo, 1997). A questionnaire comprising the constructs' items on a seven-point Likert scale (1=strongly disagree; 7=strongly agree) was distributed. After two reminders and follow-ups, a total of 702 were

received. After excluding those who significantly could not complete the questionnaire and those who were not in a management position, the final number came down to 508 which were used for the analysis of which 170 were from banking, insurance 62, consulting 47, media and communication 99, hospitality 51 and retailing 79.

5.3.2 Variables and Measures

Dependent variable: Pace and Stephan (1996) offer a comprehensive definition of competitiveness as the ability of an organization to stay in business and to protect the organisation's investments, to earn a return on those investments, and to ensure jobs for the future. To be able to stay in business, Akimova (2000) opines that the company must adapt to the changing business environment by developing the proper adjustment measures. We therefore measured competitiveness by Akimova's (2000) three criteria of adaptability to changes in business environment (adjustment to a hostile environment), advantages across the marketing mix (competitive advantage) and company performance (i.e. financial performance). Respondents were asked to indicate their level of agreement regarding their company's performance relative to the competition. All items were measured on a 7-point Likert scale (1=strongly disagree, 7=strongly agree).

Independent variables: Based on the conceptual domain of *service innovation* discussed above, a multidisciplinary literature search was conducted in the areas of innovation, service innovation, service strategy and management. This resulted in few and scattered items being revealed for some of the dimensions of the service mix. We therefore followed the recommendations of Hinkin (1995) and DeVellis (2003) in the event of no known scale to

freely generate items based on the description of the construct and its dimensions. We further followed the recommendation of Spector (1987); to have the construct defined, initial items designed and reviewed, items administered to a large sample in order to develop an internally consistent scale, and, before scale validation, using other samples. We then generated a pool of 44 items for the service innovation construct based on the service mix.

The items were subsequently subjected to an expert screening for clarity, redundancy, comprehensiveness, leading and other faulty issues. For this purpose, 10 academics that had researched service, marketing and innovation management were recruited and provided with definitions of the construct, its dimensions and items. This process resulted in the elimination of five items and five more modified to bring the revised pool to 39 items. The items were pre-tested on 20 executives working in the financial services sector using the protocol approach (Riefler et al., 2012) to ensure that all items were clear and comprehensible for the target group before proceeding further. These processes therefore show evidence of face validity for the scales developed.

Prior to large sample testing, we applied the Anderson and Gerbing's (1991) pre-test methodology for assessing content validity of the individual items. We specifically recruited 8 teaching assistants for an item-sort task and provided them with the description of the dimensions. Instructions were given to them to read each item carefully and assign it to the appropriate dimension within an order according to their personal judgment. This sorting out task led to a computation of *proportionate substantive agreement* (p_{sa}), which defines "the

proportion of respondents who assign an item to its intended construct” (Anderson and Gerbing, 1991, p.732). The proportionate substantive agreement (p_{sa}) formula is:

$$p_{sa} = n_c / N$$

where n_c =number of respondents assigning an item to its intended construct dimension, and N =total number of respondents with resulting values ranging from 0 to 1. Anderson and Gerbing (1991) note that the larger the indices, the greater the substantive validity. Applying a cut-off point of 0.5, we reduced the item pool to the total content valid items (34) that we then subjected to exploratory factor analysis utilizing the seven-point Likert-type responses (1=strongly disagree; 7=strongly agree).

We embarked on scale purification through an exploratory factor analysis as recommended by Hair, et al., (2007). The content valid items were incorporated into a questionnaire that was administered to service managers who had enrolled in Master of Business Administration (MBA) programs from two universities in Ghana (University of Ghana and Methodist University College, Ghana). Students on the programs consisted of persons from lower level management to upper level management with the majority of the students coming from the services sector of the Ghanaian economy according to the graduate centers of the two schools.

A total of 400 questionnaires were distributed to students with instructions that it must be filled by persons who are currently at management level in a service firm or have worked as a manager in a service firm in the past two years. Two reminders were given at the end of the second and third weeks with a total of 274 collected at the end of the fourth week. After

excluding questionnaires due to missing values and those completed by non-service managers, the number came down to 201 with at least five respondents from hospitality, consultancy, banking, insurance, healthcare, telecommunication, retailing, media and communication and travel services. Following the recommendations of Armstrong and Overton (1977), the response from questionnaires returned after first week and that of the last week respondents were compared. The group means were not significantly different hence non-response bias was considered not a problem for this study.

We proceeded with the EFA to determine the underlying structure of the data and rotated it through varimax to reduce the number of factors. Variables were considered to load significantly on a factor when their factor loading was ≥ 0.5 (Hair et al., 2007) to show evidence of discriminant and convergent validity when combined with item-to-total correlation. Except in cases where conceptual justification can be made for an item, all cross loadings were omitted as well as items loading below the threshold. Five factors were extracted with some of the conceptualized factors merging (i.e. place and physical evidence; and process and people) and were allowed to merge, as they were conceptually justifiable. In naming the factors, factor 1 which was “place and physical evidence” was together seen as exhibiting service distribution attributes and was accordingly named as service distribution innovation. “Process and people” merged as factor two showing service delivery (mode) process features (Chen, Tsou and Huang, 2009) and were accordingly named as a service processing innovation. Aside from these mergers, the other factors supported the conceptualization and therefore were left untouched. Factor 3 is product innovation, factor 4 and 5 were price and promotional innovation respectively. Total items remaining stood at 28

with a combined reliability of 0.948 within a 5-factor solution that was used for further analysis. These were subsequently used in the larger firm level data collection for CFA and structural equation modeling.

Mediating variables: *Innovative culture* creates the needed environment and the service philosophy that encourages autonomy and calculated risk taking; the tolerance for, the development of, and implementation of service innovation. Measures for innovative culture were adapted from the works of Gaynor (2002), Tushman et al. (1997), Sundbo (1997) and Cakar and Erturk (2010)

Innovation leadership refers to the role of management in ensuring that innovation is promoted by providing the needed support. High-level innovation leadership means that management creates the institutional structures and provides adequate resources and motivation to deliver a successful innovation implementation. The study measured innovation leadership by relying on the works of Jaworski and Kohli (1993), Ko and Lu (2010), Souitaris (2002) and West et al. (2003).

Controls variables: Though the study was interested in developing a parsimonious model, it also recognizes the fact that other factors may influence firm's competitiveness. The study therefore includes control variables to ensure results are not unjustifiably influenced by these factors. As in the literature, (e.g. Wang, 2008; Yusif, 2012) the study controlled for firm size, form of ownership and firm age as having potential influence on the performance of a service firm. Larger and older firms may possess a superior pool of resources and the capacity, as well as the scale necessary, to invest in innovation. The study measured the size

by total number of full time employees and firm age by the number of years the firm had been in business and a natural logarithm transformation were taken.

Table 5.1: Constructs Measurement Items Reliability and Validity Tests

Item description	Loadings (t-values)
Product innovation $\alpha = .83$; $CR = .79$; $AVE = .70$	
Our company has introduced more innovative products during the past five years than any other	.77(fixed)
Our company is faster in bringing new service offerings into the market than any other	.77(16.99)
In comparison with our competitors, our company has a high success rate in new product launch	.83(18.13)
Price innovation $\alpha = .80$; $CR = .73$; $AVE = .68$	
We always offer more competitive prices than competitors	.78(fixed)
We have discount structures to attract new and large volume customers	.76(16.45)
There is flexibility in our pricing and payments based on customer needs	.72(15.73)
Promotional innovation $\alpha = .76$; $CR = .71$; $AVE = .65$	
Our marketing communication program is revolutionary in the market	.76(fixed)
Our company is efficient in information exchange and communication	.71(15.79)
We create awareness on our new products in no time	.66(14.08)
Service delivery (mode) innovation $\alpha = .78$; $CR = .73$; $AVE = .67$	
We distribute our new products faster and wider than our competitors	.87(fixed)
Our physical structures create a drawing power and distinguishes us from the competition	.68(11.73)
The atmosphere under which we deliver our service evokes pleasant feelings which add up to delightful service delivery	.71(12.22)
Service processing innovation $\alpha = .75$; $CR = .70$; $AVE = .63$	
Our company changes service process at a great speed in comparison with our competitors	.68(fixed)
Our staff exceptionally resolve customer complaints more quickly to recover defecting customers	.71(13.51)
Our employees independently deploy resources and capabilities of the firm to create value for both the customer and the firm	.70(13.38)
Innovative culture $\alpha = .84$; $CR = .78$; $AVE = .72$	
We are willing to try new ways of doing things and seek unusual, novel solutions	.82(fixed)
We encourage people to think and behave in original and novel ways	.77(18.04)
The culture of this company encourages enthusiastic participation of all innovative activities	.81(18.92)
Innovation leadership $\alpha = .75$; $CR = .73$; $AVE = .68$	
Management is very cautious in adopting innovative ideas	.77(fixed)
Key executives of the firm are willing to take risks to seize and explore “chancy” growth opportunities	.88(10.99)
Senior executives have a demonstrative and risk-taking attitude towards innovations in order to achieve best results	.76(10.35)
Competitive advantage $\alpha = .93$; $CR = .81$; $AVE = .73$	
Company/brand image	.91(Fixed)
Personal selling	.87(28.75)
Product range offered	.93(33.34)
Dealing with Hostile business conditions $\alpha = .86$; $CR = .79$; $AVE = .70$	
Increased sales volume	.83(Fixed)
Carry marginally profitable products to satisfy consumers	.81(20.72)
Capitalize on new markets	.80(20.64)
Introduce new products	.80(20.51)
Performance $\alpha = .90$; $CR = .80$; $AVE = .73$	
Better profit	.87(fixed)
Better return on investment	.88(25.53)
Better cash flow	.84(23.36)

Informant Evaluation: The study followed established tradition (e.g. Morgan, Katsikeas & Vorhies, 2012) to assess the competence of the respondents in three key areas: (1) knowledge about the questions asked; (2) accuracy of the answers provided; and (3) confidence in the answers provided. The informant's competence measures were assessed on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree), and the average minimum score obtained was 5.5, which is very high and above Kumar's (1996) thresholds that advocate for the retention of cases with individual responses above the mid-scale point; which in this study was 4 as a measure of high informant competency, the study is confident that the key informants in this research are competent.

5.4 ANALYSES AND RESULTS

5.4.1 Assessment of the Measures

Table 5.2 shows the descriptive statistics. The measures of all service innovation dimensions were positively correlated with the measures of innovative culture, innovation leadership and competitiveness.

5.4.2 Reliability and Validity of the Constructs

Using Amos 20, the study explored the maximum likelihood estimation procedure to examine all scales in a confirmatory factor analysis (CFA). The study assessed the reliability of individual items by inspecting their internal consistency values and the loadings of the items on their respective construct (Fornell & Larcker, 1981; Yuan, Zhou, Bruton & Li, 2010). The internal consistency values (Table 5.2) for all constructs were good and above the threshold of 0.7 ranging from 0.75 to 0.93 (competitive advantage – 0.93; hostile

business conditions – 0.86; performance – 0.90; innovation leadership – 0.75; innovative culture – 0.84; product innovation – 0.83; price innovation – 0.80; promotion innovation – 0.76; service processing innovation – 0.78; and service delivery innovation – 0.75).

The positive and significant loadings confirm convergent validity of the measures. Results reported in Table 5.2 also show that composite reliability and discriminant validity of the variables are acceptable with indices exceeding a minimum cut-off point of 0.60 and .05 respectively (Bagozzi & Yi, 2012). The measures also showed satisfactory discriminant validity by showing a larger average variance extracted for all constructs being over and above the inter-construct squared correlations (Hair et al., 2007). The study therefore concludes that each construct of our study was unique and captured phenomena that others measure did not.

5.4.3 Hypotheses Testing using Structural Equation Modeling (SEM)

To examine how innovative culture and innovation leadership might act as mediators in the relationships between service innovations (service process, product, price, promotion and service distribution innovations) and competitiveness of a service firm, we adopted the SEM approach outlined by MacKinnon, et al (2002). SEM is generally considered the preferred causal modeling method (James, et al., 2006; Yuan, et al., 2010) because researchers can use it to control for measurement error, provide information on the degree of fit of the tested model, and test multiple mediators (MacKinnon et al., 2002). We estimated a baseline model as the full mediation model (see Figure 5.1), which did not have direct paths from the service innovations that are the predictors to a service firm's competitiveness. Table 4 shows

that all of the fit indices indicated a good fit ($\chi^2(19)=43.237$, $p<.001$; TLI=.969; CFI=.987; RMSEA=.050, SRMR=.0272).

Following the approach espoused by Anderson and Gerbing (1998), the study tested a series of nested models against the baseline model through sequential chi-square tests with the parameter constraints of interest in the study. In Model 1 the path related to Hypothesis 1a was constrained to zero; that is, the link involving service process innovation, innovative culture and service firm competitiveness was removed from the baseline model. A significant change in the chi-square difference would suggest that the constrained path was important and thus provides support for the baseline model. Similarly, we constrained the relevant paths of the nine hypothesized relationships to be zero; one at a time in Models 2 to 10. Table 4 shows the results of the chi-square differences between the baseline model and each of the nested models. As expected, all of the chi-square differences were significant which suggested that the baseline model fits the data.

Furthermore, following Kelloway (1998), the study compared the baseline model with a partial mediation model in which direct paths from the five service innovations to a service firm's competitiveness were added to the baseline model in Model 11. As depicted in Table 4, the chi-square difference between Model 11 (partial mediation model) and the baseline (full mediation model) was significant ($\Delta\chi^2=9.114$, $\Delta df=2$, $p<0.001$). This therefore suggests that adding direct paths from the service innovations to a service firm's competitiveness to the baseline model significantly improved the model fit. We concluded that the partial

mediation model was superior to the full mediation model, and acceptable for further consideration.

To rule out alternative explanations, we tested a series of alternative models. The first such explanation is that there is no causal relationship between service innovation and institutional conditions. To exclude this possibility, we tested a direct effect model, Model 12, in which each service innovation dimension, innovative culture and innovation leadership were set to directly influence the service firm's competitiveness. The chi-square difference test suggested that the partial mediation model fit the data better than did the direct effect model (see Table 4). The next possible explanation concerning the relationship among variables is that although innovative culture and innovation leadership are important, they play a trivial role in enhancing a firm's competitiveness. To exclude this possibility we tested a non-mediation model (Model 13) in which the paths from innovative culture and innovation leadership to a service firm's performance in Model 11 were constrained to zero. The chi-square difference test suggested that the partial mediation model fit the data better than did the non-mediation model ($\Delta\chi^2=7.186$, $\Delta df=5$, $p<0.001$). The third and final explanation is that a reverse causal relationship exists between a service firm's competitiveness and service innovation as firms with better competitive position are in a better position to be more innovative. Model 14 treated a service firm's competitiveness as an antecedent of service innovations that in turn are predicted by innovative culture and innovation leadership. The overall good of fit indices ($\chi^2 (19) =43.378$, $p<.001$; TLI=.969; CFI=.987; RMSEA=.050, SRMR=.0268) show that this alternative model is significantly worse than the hypothesized model.

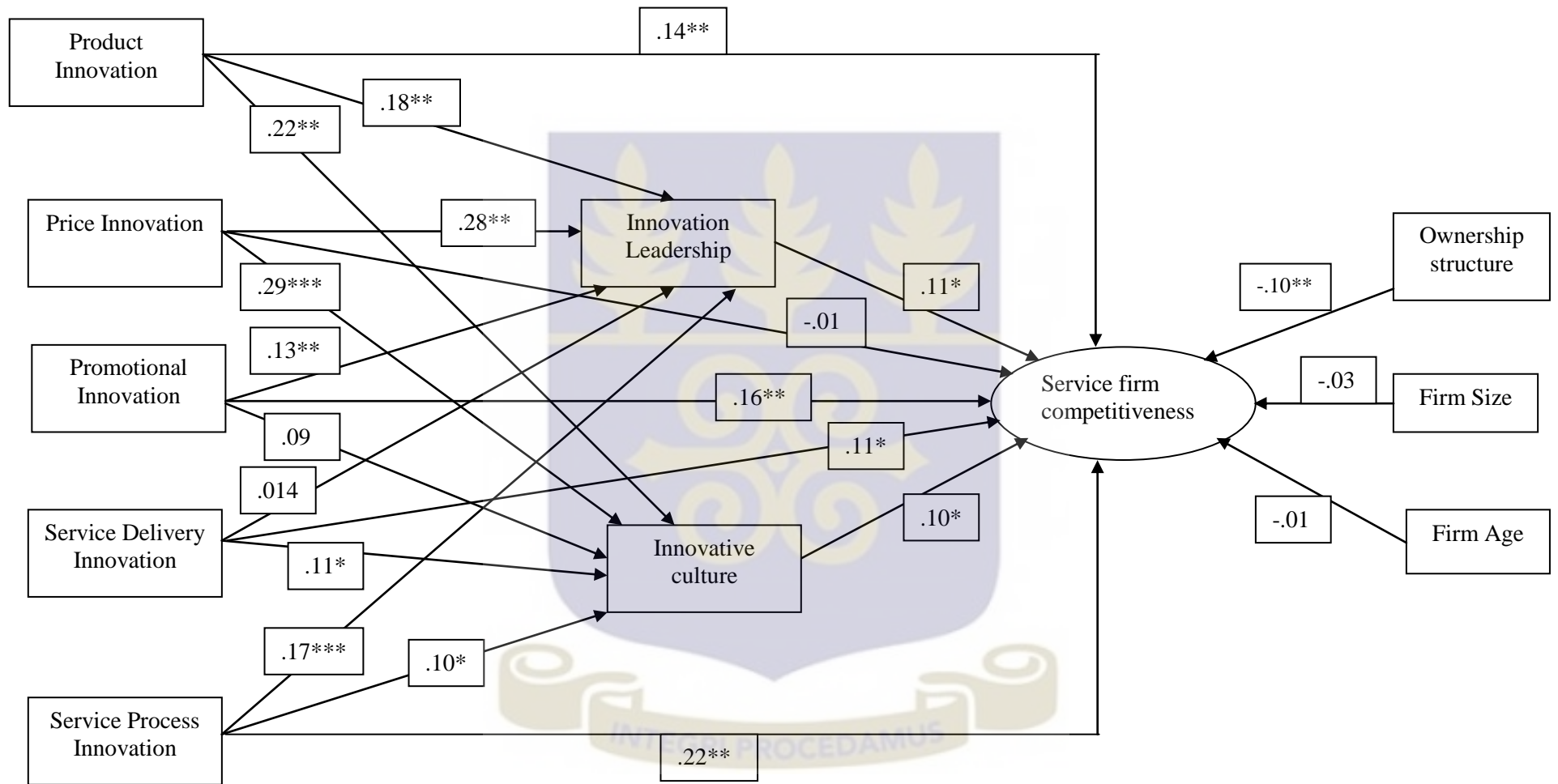


Figure 5. 2: Final Partial Mediation Model.

Parameters are standardized parameter estimates ***p<.001 **p<.01 *p<.05

5.4.4 Assessment of Hypotheses

Figure 5.2 displays the parameter estimates of the partial mediation model. This is the final model and best illustrates the results of the hypothesis testing. Hypothesis 1a states that a service firm's innovative culture mediates the positive effect of service process innovation on a firm's competitiveness. As shown in Figure 5.2, there was a significant relationship between service process innovation and innovative culture ($\beta=.10$, $p < 0.05$), and a significant relationship between innovative culture and a service firm's competitiveness ($\beta=.10$, $p < 0.05$). This therefore suggests that the hypothesis that a service firm's innovative culture mediates the positive effect of service process innovation on a firm's competitiveness is strongly supported.

Hypothesis 1b states that a service firm's innovative culture mediates the positive effect of product innovation on a firm's competitiveness. Figure 5.2 shows that there was a significant relationship between product innovation and innovative culture ($\beta=.22$, $p < 0.001$), and a significant relationship between innovative culture and a service firm's competitiveness ($\beta=.10$, $p < 0.05$). Therefore hypothesis H1b is strongly supported.

The study hypothesized in H1c that a service firm's innovative culture mediates the positive effect of price innovation on a firm's competitiveness. As shown in figure 5.2, there was a significant relationship between price innovation and innovative culture ($\beta=.29$, $p < 0.001$), and a significant relationship between innovative culture and a service firm's competitiveness ($\beta=.10$, $p < 0.05$). The hypothesis in H1c is therefore strongly supported. In H1d, the study hypothesized that a service firm's innovative culture mediates the positive effect of promotional innovation on a firm's competitiveness. The analysis in Figure 5.2 shows that there was no significant

relationship between promotional innovation and innovative culture of the service firm ($\beta=.09$, $p > 0.05$) even though the relationship between innovative culture and a service firm's competitiveness is significant ($\beta=.10$, $p < 0.05$). The hypothesis that a service firm's innovative culture mediates the positive effect of promotional innovation on a firm's competitiveness is therefore not supported.

Hypothesis 1e states that a service firm's innovative culture mediates the positive effect of service delivery innovation on a firm's competitiveness. As shown in Figure 5.2, there was a significant relationship between service delivery innovation and innovative culture ($\beta=.11$, $p < 0.05$) and a significant relationship between innovative culture and a service firm's competitiveness ($\beta=.10$, $p < 0.05$). The hypothesis in H1e is therefore strongly supported.

The study hypothesized in H2a that a service firm's innovation leadership mediates the positive effect of service process innovation on a firm's competitiveness. Figure 5.2 shows that there was a significant relationship between service process innovation and innovation leadership ($\beta=.17$, $p < 0.001$) and a significant relationship between innovation leadership and a service firm's competitiveness ($\beta=.11$, $p < 0.05$). The suggestion therefore is that H2a is strongly supported.

In H2b the study stated that a service firm's innovation leadership mediates the positive effect of product innovation on a firm's competitiveness. As shown in Figure 5.2, there was a strong significant relationship between product innovation and innovation leadership ($\beta=.18$, $p < 0.001$) and a significant relationship between innovation

leadership and a service firm's competitiveness ($\beta=.11$, $p < 0.05$), hypothesis H2b is therefore supported.

Hypothesis 2c states that a service firm's innovation leadership mediates the positive effect of price innovation on a firm's competitiveness. The analysis in Figure 5.2 shows that there is a significant relationship between price innovation and innovation leadership ($\beta=.28$, $p < 0.001$) and a significant relationship between innovation leadership and a service firm's competitiveness ($\beta=.11$, $p < 0.05$), hypothesis H2c is therefore strongly supported.

In H2d the study hypothesized that a service firm's innovation leadership mediates the positive effect of promotional innovation on a firm's competitiveness. As shown in Figure 5.2, the coefficient for the path between promotional innovation and innovation leadership was significant ($\beta=.13$, $p < 0.001$), as was the coefficient for the path between innovation leadership and a service firm's competitiveness ($\beta=.11$, $p < 0.05$). Therefore hypothesis H2d was strongly supported.

Finally, hypothesis 2e states that a service firm's innovation leadership mediates the positive effect of service delivery innovation on a firm's competitiveness. The path between service delivery innovation and innovation leadership as depicted in Figure 5.2 had a non significant coefficient ($\beta=.014$, $p > 0.05$) while the path between innovation leadership and service firm competitiveness ($\beta=.11$, $p < 0.05$) was significant. The result therefore did not support H2e.

In summary, the results of the different models with and without direct paths from the predictors to outcome provide support for a partial mediation effects. Based on the individual parameter estimates of the best fitting model, the study finds support for the mediating role of innovative culture and innovation leadership in the relationship between service innovations and a service firm's competitiveness. However, it must be stated that innovation leadership only mediated promotional innovation while service delivery innovation was also only mediated by innovative culture in their relationship with a service firm's competitiveness.

5.5 DISCUSSION

The present study examined the mediating influence of two specific internal organizational boundary conditions – innovative culture and innovation leadership – on the relationship between innovation in service firms and their competitiveness. The findings revealed that innovative culture and innovation leadership largely played a partially mediating role, acting as significant intermediate variables between a service innovation as a strategic option and a firm's competitiveness. These findings provide theoretical and empirical insight and a contribution to the literature.

As a key contribution to literature, this study has responded to calls (Coombs and Miles, 2000; Camacho and Rodriguez, 2005) for an application of a synthesis approach to the service innovation construct to deal with criticisms leveled against the subject. This study has conceptualized service innovation in a manner that enables it to deal with the core issues of service, and highlights the obscure and not easily recognizable factors and activities that set service apart from manufacturing. In dealing with “the stagnant dualism

of manufacturing versus service” problem (Camacho and Rodriguez, 2005), the current study navigates the conceptual issues and relies on the service mix as an avenue for service firms to create, extend or modify resources, capabilities and/or routines in the form of innovation (Teece, 2007). The paper sees the service mix as distinct skills, processes, procedures, tools, structures, rules, and disciplines that are espoused by the DCV as the micro-foundation for competitiveness in a dynamic environment. In the theoretical sense, the study therefore extends the release, integration and reconfiguration of a firm’s resources and capabilities in a form of service innovation development, which is considered, under-explored (Eisenhardt and Martin, 2000). This study reinforces the notion that possession of a unique bundle of resource alone does not create a sustainable competitive advantage over time and advocates that resources and capabilities (service mix) should be released, integrated and reconfigured in the form of innovations to enhance firms’ competitiveness.

Secondly, the study’s classification of innovation through the service mix delimits service innovation as only output or process oriented which Carlborg et al. (2014) consider inadequate, but rather deals with every aspect of the service system which is seen as the value creator (Vargo, Maglio and Akaka, 2008). The current classification deals with the obscure and neglected aspects, activities and routines that are specific to service firms (Lu et al., 2009). This has allowed for proper delineation of the service innovation construct and has shown the nature and form. The study deals with the concerns of den Hertog et al. (2010) and McDermott and Prajogo (2012) on the observable performance benefits and measurement problems regarding the construct.

This paper while acknowledging the fact that innovation enhances a firm's performance and competitiveness, sought to further examine some internal boundary conditions that may mediate the positive relationship between the newly constructed service innovation dimensions and a service firm's performance. The strategic management literature posits a positive relationship between strategy and firms' performance and competitiveness. However, it is considered imperative for researchers to determine the institutional limits and conditions within which strategy (i.e. innovation) is a most useful management tool and to establish the extent to which its efficacy is conditioned by internal organizational behavior of the service firm.

The current study found that innovative culture and innovation leadership mediate the positive relationship between service innovation and service firms' competitiveness. The evidence suggests that internal organizational conditions significantly impact on the outcome of a service innovation orientation of the firm (Mumford and Licuanan, 2004). The findings support Gaynor's (2002) assertion that innovation does not require genius, but requires a system-wide dedication and commitment to pursue unique opportunities and this system-wide dedication is always inspired by the culture of the organization. Firms with an innovative culture would create a fundamental service philosophy that determines the development and implementation of service innovation that will enhance the competitiveness of the firm (Sundbo, 1997). The findings support the organizational culture theory which states that values and beliefs within the firm are a determination of the culture within and influence actions; thus strategy (Cakar and Erturk, 2010). Innovation therefore must be supported by an innovative culture which forms an integral part of the general functioning of the organization and fills the gap between what is formally announced and what actually takes place (Martins and Terlanche, 2003).

The findings also support Felekoglu and Moultrie's (2014) assertion that there is rich evidence on the critical role of top management in innovation development and implementation. The evidence shows that innovation leadership significantly and strongly mediates the positive relationship between service innovation and firm competitiveness. This study therefore supports the thesis of the upper echelon theory of organizational outcomes and performance levels being partially predicted by the top management (Hambrick and Mason, 1984). The findings corroborate Brown and Anthony's (2011) position that organizational leadership creates the right culture and institutional structure and provides the adequate resources and motivational drive to deliver a successful innovation implementation. The mediating role of innovation leadership found in this study supports the assertion made by West et al. (2003) that leaders create conditions for effective interactions among members for success strategy implementation.

The current study presents a response to the call for an investigation into different contexts in the area of strategy implementation and using data from an emerging economy on service innovation as a strategic option (Li and Zhou, 2010). We found evidence to support that service firms operating in an emerging economy can enhance their competitiveness through service innovation. However, such strategic activity must come with internal support from the organizational leadership and culture. The evidence in the context of this study is that it might not be enough to rollout innovation activities; but must be supported by innovative culture and innovation leadership.

5.6 CONCLUSIONS

The current study shows that internal firm conditions can act as intermediate variables in the relationship between service innovation strategy and a firm's competitiveness. Previous studies have examined the direct effect of service innovation strategy on performance outcomes. The study recognizes that the relationships between service innovation, internal firm conditions and competitiveness are complex. The study particularly argues that the deployment of service innovation along the line of the service mix may bring competitiveness through the mediation of certain internal firm conditions such as innovation leadership and innovative culture.

While drawing on the theoretical insight gained from the organizational culture theory (Schein, 2010), the present study reflects the notion of Barney (1989) that firms that do not have the required culture cannot engage in activities that will generate sustained superior performance and competitiveness. The model maintains that, though generating and deploying service innovations may bring some level of performance outcome, it is rather the intermediary role played by the innovative culture of the service firm that brings about the sustainable competitive advantage and competitiveness. The argument in this study is that though service innovations can be easily copied (McDermott and Prajogo, 2012) and perhaps may not garner long term advantages on their own; the mediating role played by an internal innovative culture will produce sustained and imitable competitiveness. The study agrees with Janićijević (2012) that the innovative culture of the service firm directs interpretations of events in the environment and organization and informs the deployment of service innovation strategy in a manner that yields long-term competitiveness.

The study further draws from the DCV (Teece et al., 1997) and complementarity of strategic assets (Amit and Shoemaker, 1993) and reflects the view that the strategic values of each of the service innovations' relative magnitude in their deployment and application can be increased with an increase in relative magnitude of other strategic assets such as innovation leadership and innovative culture. As noted by Diericks and Cool (1989), the effective deployment of two or more firm assets and/capabilities (i.e. service innovation, innovation leadership and innovative culture) brings about positive externalities. The findings of the current study allows us to posit under the complementarity paradigm that the combined value that will be delivered in the form of competitiveness by service innovation and innovative culture and leadership will be higher than the cost of developing and deploying service innovation alone. The internalized nature of innovation leadership and innovative culture makes them firm-specific, durable and valuable strategic assets that will enhance service innovation's ability to create valuable, rare, imitable competitive advantage to deal with criticism leveled against service innovations (McDermott and Prajogo, 2012; den Hertog et al., 2010).

As a way forward for future studies in this area, prospective researchers can probe deeper into the service innovation strategy-internal conditions-competitiveness relationship by examining the specific service innovations and internal conditions and how the internal conditions transform the service innovations into firm competitiveness. Additionally, it would be stimulating and worthwhile to examine whether the model based on the single relatively small emerging economy of Ghana is generalizable to other larger emerging and developed economies whose market dynamics and business and national culture may differ.

The practical implications of this study are that service firms must be equally interested in creating a fundamental service philosophy to enhance the ability of their service innovations to garner competitiveness. The ability of the service firm's innovations to yield positive results does require a system-wide dedication that is inspired by the organizational culture and top management. The role of top managers in service innovation implementation must not be tacit but overt as leadership is seen as a strong complementary strategic asset that produces positive externalities.

The present study, like other studies, has limitations which future research should address. A key limitation that poses a question that begs to be answered is the generalizability of findings, especially the importance of mediating effects of innovation leadership and innovative culture in different contexts such as economies that are at different stages of economic development. To better understand the issues in service innovation and competitiveness on one hand and the mediating internal firm conditions on the other hand, additional research is required to clarify the extent to which such conditions shape the relationship between service innovation and competitiveness.

Another limitation is that the current study is situated in Ghana, a single emerging economy, which shares many characteristics with other developing and emerging economies and therefore offers a rich context to test the impact of service innovation on competitiveness – a strategic orientation theory – from an emerging economies perspective. Conversely, there may be some peculiarities in other emerging markets that may offer additional insight for theory development. Although organizational culture has been explored in this study, broader country level culture towards innovation in other

economies may offer further understanding of the mediating role of the culture in the service innovation-competitiveness relationship.

Innovation in service firms is generally an important topic due to the role played by services in the world's economy and of particular significance is its study in emerging economy that to date has received little attention. The present study helps to establish the foundation for future investigation of this topic. It is perhaps significant that a foundation has been established here for the understanding of the relationship among service innovation, internal firm conditions and competitiveness. It is hoped that this research will lead to further examination of this issue, which is of both theoretical and empirical importance.

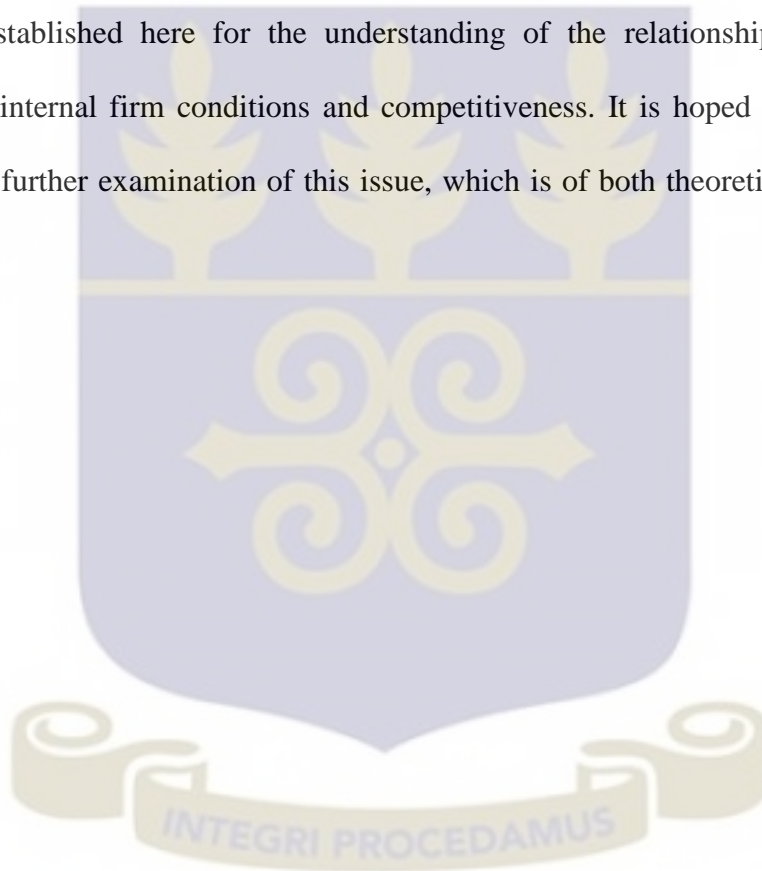


Table 5.2: Descriptive Statistics and Inter-construct Correlation

Pearson correlation coefficient estimated on the sample of respondents implies 5% significance or more. The mean and standard deviation figures also describe the data

^a formative index

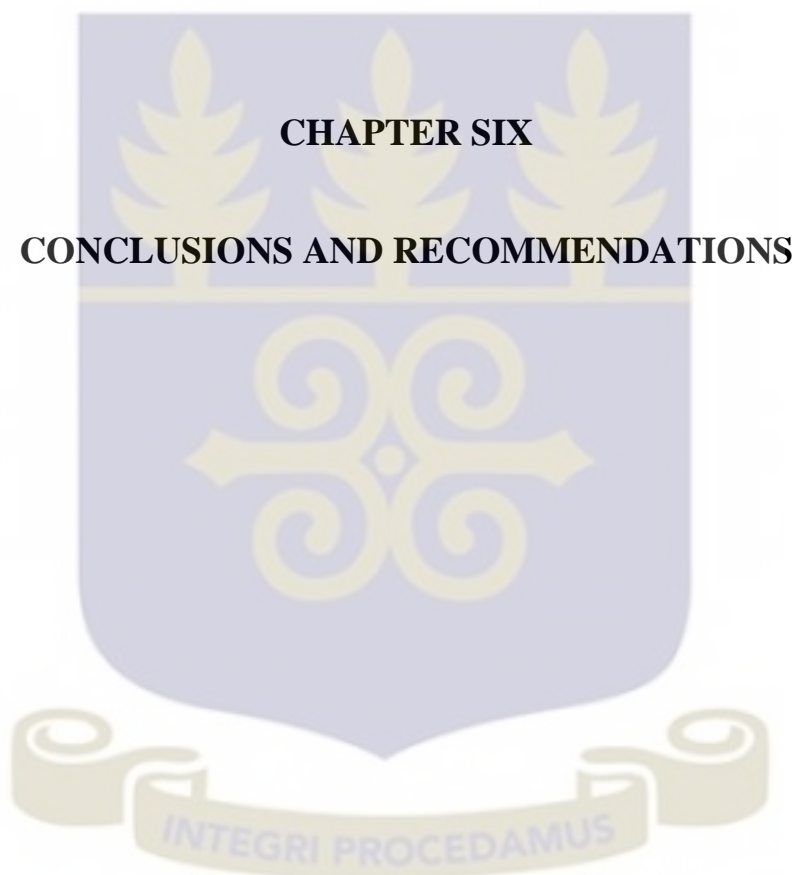
** . Correlation is significant at the 0.01 level

	Mean	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Innovation Leadership	4.81	1													
2. Innovative Culture	4.72	.460**	1												
3. Competitive Advantage ^a	4.62	.348**	.331**	1											
4. Dealing with Hostile Business Conditions ^a	4.69	.408**	.439**	.483**	1										
5. Company Performance ^a	4.86	.322**	.388**	.506**	.532**	1									
6. Product Innovation	4.44	.410**	.458**	.345**	.456**	.378**	1								
7. Price Innovation	4.76	.409**	.400**	.254**	.365**	.323**	.379**	1							
8. Promotional Innovation	4.76	.393**	.416**	.325**	.448**	.389**	.432**	.489**	1						
9. Service Delivery Innovation	4.67	.356**	.377**	.385**	.424**	.375**	.460**	.424**	.460**	1					
10. Service Process Innovation	4.73	.397**	.395**	.344**	.441**	.424**	.395**	.474**	.500**	.481**	1				
11. Competitiveness	117.26	.360**	.372**	.762**	.648**	.657**	.397**	.321**	.387**	.376**	.413**	1			
12. Firm Size	20.88	.003	.013	.064	.019	.070	.000	-.013	.032	.091*	.009	.025	1		
13. Firm Age	9.68	.029	.043	.047	-.042	.113**	.035	.043	.030	.036	.025	.030	.346**	1	
14. Form of Ownership	-	-.006	.002	-.094*	-.063	-.092*	.029	-.041	-.050	-.119**	-.064	-.090*	-.294**	-.137**	1
Standard deviation		.901	1.104	1.499	1.160	1.229	1.168	1.008	.985	1.054	.974	78.471	14	3.78	.2081

Table 5.3: Results of Alternative Model Comparisons

Structural equation modeling was used as the causal modeling method to control for measurement error, test for model fitness and tests multiple mediators. Series of nested models were tested against the baseline model through sequential chi-square tests with the parameter constraints of interest in the study. The study constrained the relevant paths of the nine hypothesized relationships to be zero. All of the chi-square differences were significant which suggested that the baseline model fits our data. The baseline model was compared with a partial mediation model in which direct paths from the five service innovations to a service firm's competitiveness were added to the baseline model and a significant chi-square difference was found. Three other alternative models were tested to assess the robustness of the partial mediation model. The dependent variable in all cases except in the reverse causality was service firm competitiveness.

<i>Model</i>	χ^2	<i>df</i>	χ^2/df	<i>TLI</i>	<i>CFI</i>	<i>RMSEA</i>	<i>SRMR</i>
Baseline model – full mediation	43.237	19	-	.969	.987	.050	.0272
Model 1	45.316	20	2.266	.969	.986	.050	.0275
Model 2	43.466	20	2.173	.971	.987	.048	.0273
Model 3	96.114	20	4.806	.907	.959	.087	.0375
Model 4	72.468	20	3.623	.936	.971	.072	.0326
Model 5	44.276	20	2.214	.970	.987	.049	.0274
Model 6	55.880	20	2.794	.956	.980	.059	.0272
Model 7	73.986	20	3.699	.934	.971	.073	.0319
Model 8	64.135	20	3.207	.946	.976	.066	.0316
Model 9	43.259	20	2.163	.972	.987	.048	.0272
Model 10	59.247	20	2.962	.952	.979	.062	.0301
Model 11 – partial mediation	34.123	21	1.625	.984	.994	.035	.0260
Model 12 – direct model	465.760	24	19.407	.549	.760	.191	.2178
Model 13 – non mediated	41.309	16	2.582	.961	.986	.056	.0258
Model 14 – reverse causality	43.378	19	2.283	.969	.987	.050	.0268



CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1 OVERVIEW

The overarching aim of the thesis was to assess how innovation in service firms can be developed and implemented under different conditions to produce long term benefits for service firms with particular focus on firms operating in an emerging economy. The thesis sought to deal with critical issues that are of theoretical, empirical and practical concern for the services sector. Services the world over have been seen to be generating a lot more to support nations' GDP and have surpassed manufacturing from an employment perspective, however, research in the area of service innovation has not reflected this fact. Reasons such as the subject not being interesting, and service innovation not being able to be directly linked with performance have been given; others have said that the fact that the nature of service outputs are fuzzy makes it difficult to identify and measure the innovation in service. It is therefore suggested that unlike innovation in manufacturing, observers are at a loss as to where to look for the innovation as no tangible product is associated with service innovation. This has led to lack of clarity in empirical research and an imposition of practical limitations on the implementation of service innovation as a competitive strategy by service firms.

The challenges raised above have led to different attempts by scholars to situate service innovation in the innovation literature which has further created some theoretical confusion. Innovation in services is deemed to be in a relatively early development state, where approaches applying a traditional manufacturing logic (*assimilation perspective*) to service innovation exist alongside approaches that view services as distinctive activities (*demarcation perspective*). The *synthesis approach* which is adopted in this thesis is seen to be the right approach as it considers the similarities and differences in service and physical products to deal with traditional manufacturing-service dichotomy. This study

adopted the view that service innovation reveals aspects neglected in the widely distributed innovation process in the economy which is largely manufacturing biased. The perspective of this study is that service innovation is not entirely different nor strictly follows manufacturing innovation processes but rather looks for the obscure and not easily recognizable factors and activities that set service apart from manufacturing.

The thesis through the synthesis approach explored the uniqueness of service and proposed service innovation dimensions grounded in the organizational and service management theories. Through the DCV, the study conceptualized that innovation in service should be sought from both within the firm's internal and external capabilities. The study contended that service innovation could be created from internal capabilities such as the service marketing mix that serves as a basic tool for a service firm's competitiveness. Another internal capability that could be explored, and out of which service innovation could be developed, is the customer-service firm interface. The interaction between the firm and the customer enables co-creation of value and the concurrent production-consumption activities performed by the service firm and the customer in the service delivery process to create innovations such as customization, involvement and timing innovations. Lastly, the service firm could explore its external capabilities through market innovations which target the creation and identification of new markets and needs; providing for such markets and needs and reacting to changes in the market based on the intelligence.

The thesis sought to add to the body of knowledge in service innovation with empirical study from an emerging economy context which has been understudied. The lack of research into innovation in service firms in emerging market contexts is telling, since the

literature indicates that the beneficial effects of a firm's strategic orientation may be context specific as opposed to being universally applicable (e.g. Li & Zhou, 2010). Consequently, taking the cue from the contextual disparities of emerging economy context, the study has presented a different contextual perspective to the service innovation literature from a lower-middle income economy such as Ghana. Another major contribution to the literature is that the current study has shown the institutional frameworks and external environmental conditions under which service innovation strategy is a most effective managerial tool. The study has responded to the pressing need to clearly delineate the boundary conditions of innovation especially in service firms.

This final chapter provides overall concluding remarks for each of the three core empirical chapters. The chapter highlights the novel contributions of each chapter to existing literature, provides strategic implications for practice, acknowledges the limitations of the thesis and offers direction and implication for research.

6.2 SUMMARY OF CHAPTERS

This section provides a summary of the empirical chapters in terms of the objectives, findings and contribution to knowledge.

6.2.1 Chapter III: Service Innovation Determinants: Scale Development and Validation

As the starting point for innovation development and implementation in service firms, chapter three investigates the factors that will influence or impede the development and implementation of innovation in service firms to improve financial and non-financial performance. In the service innovation process, it is imperative to first understand the

drivers of innovation before proceeding to the types and outcomes. The very few studies such as Koberg (2003), Koc (2007) and Gungor and Gozlu (2012) that have attempted to deal with the issue have lacked theoretical cohesion and grounding and have mostly been studied at the firm level. Little attention has been given to the combination of internal and external factors culminating to drive innovation in service firms.

Relying on different theoretical strands (i.e. institutional theory, strategic innovation paradigm (SIP) of the broader service management theory, and the structure conduct performance paradigm (S-C-P)) as suggested by Crossnan and Apayding (2010), the chapter comes up with two internal and three external factors as the drivers of innovation in service firms. The study follows recommended scale development processes and explored a series of data to establish underlying structure of data. Perceptual data from service managers were collected in two stages for exploratory and confirmatory factor analysis. A systematic sampling process was applied to different sets of databases from six sub-sectors of the service industry before factors was applied to establish five distinct service innovation determinants. This study shows in a systematic manner that innovation in service firms is influenced by both internal and external factors. The findings support a five-factor model hypothesized and found competitive intensity, customer demand, innovation leadership, innovative culture and regulatory regime to be driving innovation in service firms. The scales developed satisfied all validity measures such as face and content validity, construct and discriminant validity, and a nomological validity to establish that the scales were valid and taps into service innovation determinants.

The findings in chapter three show support for studies such as Tushman and O'Reilly, (1997); Gaynor (2002); Twati and Gammack, (2006); and Cakar and Erturk, (2010) that

organizational culture influences the way people and groups interact with each other which affect the strategic choices and the attitude of individuals towards innovation development and implementation. The results indicate significant support for the argument that organizational culture positively influences the level of innovation of a service firm. Hambrick (2007) exposition that organizations do what they do (innovative) due to the influence of most the powerful actors - top executives and top management teams - is also confirmed by the significant and positive influence of leadership on innovation in service firms. With the exception of regulatory regime that was negatively hypothesized to determine innovation in service firm, customer demand and competitive intensity as external factors showed a positive relationship with innovation in service firms. It also indicated that as regulatory regime within which service firm operates becomes stringent, the level of innovation decreases confirming the negative relationship that exists. The chapter three confirms that both the external and internal environmental factors are key in influencing innovation in service firms.

6.2.2 Chapter IV: Interactivity Service Innovations and Firm Performance:

Competitive Intensity and Customer Demand Moderation

Chapter four examines the moderating effect of external factors i.e. customer demand and competitive intensity on the relationship between interactivity service innovation and service firm performance. The chapter was interested in determining whether the potential benefits of service innovations are affected in periods of high customer demand and high competitive intensity. Otero-Neira, et al., (2009) have suggested that innovation and innovative oriented efforts are internal capabilities that can boost the success of a firm in challenging environments. However, the universal performance benefits of innovation as a strategy are in question (Grawe, et al., 2009; Pantano & Viassone, 2014), and it remains

unclear as to whether investing in innovation such as interactivity innovation is appropriate for all businesses all of the time. Additionally, though the outcome of innovation strategies has received attention (see Darroch & McNaughton, 2002; Crossan & Apaydin, 2010), the environmental conditions under which they are most effective remain less understood. There is therefore the need to clearly delineate the boundary conditions of innovation especially in service firms; that is, to identify when it is the least and most effective management tool.

After items generation and scrutiny by experts for three interactivity innovations, a first set of data was collected from service managers who were pursuing graduate (MBA) for factor exploration. A second set of firm level data was then collected from service companies from different sub-sectors for confirmatory factor analysis and structuring equation modeling. The chapter modeled the effects of a configuration of three interactivity service innovation (customization, involvement and timing innovations), and customer demand and competitive intensity on two performance outcomes – financial and non-financial performance. The chapter found that unlike previous studies that indicate that service innovation is directly related to a firm's performance, it is rather high levels of service innovations that maximize performance in service firms operating in an emerging economy. The findings show that for a service firm operating in a developing economy such as Ghana, customization, involvement and timing innovations are important in enhancing business success most effectively when high levels of these interactivity innovations are leveraged. Greater levels of service innovations are required for both financial and non-financial performance. However, while implementing the individual interactivity innovations can accrue performance benefits to a service firm, it is important

to configure the three in order to account for the risks that may come with individual implementation.

The chapter shows that conditions outside of the firm, in the form of customer demand and competitive intensity, influence the effect of service innovation on the performance benefits. This indicates that the implementation of service innovation can be maximized when environmental conditions are aligned to the implementation of interactivity innovations. Consumers' demand for and acceptance of innovation is considered critical to the performance effect of such innovation therefore service firms should increase their interactivity innovations during high customer demand periods. In contrast, this chapter reveals that high level competitive intensity dampens the positive relationship that exists between interactivity innovation and a service firm's financial performance in an emerging economy. The current study has shown that it is effective for service to implement high levels of interactivity innovations in a low competitive intensity period or reduce investments in interactivity innovation during high competitive periods.

6.2.3 Chapter V: Innovative Culture and Leadership as Mediators Linking Service Innovation and Firm Competitiveness

Chapter five sought to examine the mediating influence of two specific internal organizational boundary conditions – innovative culture and innovation leadership – on the relationship between innovation (base on the service mix) in service firms and their competitiveness. The chapter makes a contribution to the service innovation literature by arguing that the much emphasized performance benefits of innovation strategy (Li & Atuahene-Gima, 2001; Pantano & Viassone, 2014) are contingent on certain internal firm

factors that mediate such relationships. The chapter therefore argues that the cultural and leadership orientation of service firms will determine whether service innovation as a strategic option will yield the needed performance outcome in terms of firm competitiveness on the marketplace. In spite of the fact that innovation greatly enhance a firm's competitiveness (see Darroch & McNaughton, 2002; Crossan & Apaydin, 2010), the internal institutional workings under which innovation is most effective and where such levels of competitiveness is achieved remains less appreciated in the literature. The chapter also contribute to knowledge by stating that a firm's strategic orientation may be context specific as opposed to being universally application (Li & Zhou, 2010) and that service innovation findings that are mostly based on developed economy context may not apply in an emerging economy.

The chapter first developed scales with the guidance of established procedure. An empirical research design comprised two sets of data collection from service managers was used for data collection. The first validated the service innovations dimension through data collected from service managers who were pursuing graduate programs at two universities ($n = 201$). In a second study, a larger firm level data were gathered from 508 managers working in service firms operating in an emerging economy i.e. Ghana. Structural equation modeling was used in analyzing the mediating role of innovative culture and leadership in the relationship between service innovation and a service firm's competitiveness.

The chapter finds that innovative culture and innovation leadership play a partially mediating role, acting as significant intermediate variables between a service innovation as a strategic orientation and a firm's competitiveness. This chapter reinforces the notion that

possession of a unique bundle of resource alone does not create a sustainable competitive advantage over time and advocates that resources and capabilities (service mix) should be released, integrated and reconfigured in the form of innovations to enhance firms' competitiveness. The chapter's classification of innovation through the service mix delimits service innovation as being only output or process oriented and deals with the obscure and neglected aspects, activities and routines that are specific to service firms (Lu, Yang & Tseng, 2009).

Furthermore, the chapter found that innovative culture and innovation leadership mediate the positive relationship between service innovation and service firms' competitiveness. The evidence suggests that internal organizational conditions significantly impact on the outcome of a service innovation strategy of the firm. The findings support the assertion that innovation does not require genius, but require a system-wide dedication and commitment to pursue unique opportunities and that this system-wide dedication must be inspired by the culture of the organization. The findings support the organizational culture theory which states that values and beliefs within the firm are a determination of the culture within and influence actions; thus strategy (Cakar & Erturk, 2010). The findings also support the critical role of top management in innovation development and implementation. The evidence shows that innovation leadership significantly and strongly mediates the positive relationship between service innovation and a firm's competitiveness. This chapter therefore supports the thesis of the upper echelon theory of organizational outcomes and performance levels being partially predicted by the top management (Hambrick & Mason, 1984). The findings from this chapter corroborate Brown and Anthony's (2011) position that organizational leadership creates the right culture and institutional structure and provides the adequate resources and motivational

drive to deliver a successful innovation implementation. The chapter found evidence to support that service firms operating in an emerging economy can enhance their competitiveness through service innovation. However, such strategic activity must come with internal support from the organizational leadership and culture.

6.3 STRATEGIC IMPLICATIONS

This study offers a number of practical implications for service firms and their business executives. Some scholars have noted that service innovation lacks focus and is therefore difficult to understand where to look for innovation in service and appropriately link it with firm performance. It has even been concluded by others that observers are at loss as to where to look for service innovation and therefore brings into question how applicable service innovation is for service managers. This thesis offers a service innovation development and implementation framework to guide managers in Figure 6.1. The ensuing paragraphs discuss the other practical implications of this study and how they address the concerns and criticisms of service innovation to ensure effective development and implementation.

The study has shown that organizational culture and the leadership orientation of the service firm are seen as the two main internal drivers of innovativeness of the service firm. The culture and leadership orientation of a service firm will determine the other factors such as firm size, employee behavior and the R&D budget as other researchers have opined. To engender innovation orientation within the service firm, there must be a culture that provides a system-wide dedication and commitment to pursue unique opportunities. Managers of service firms must cultivate an innovative culture that will state the values, beliefs, practices and behavior that in turn determines the general functioning of the

organization and fills the gap between what is formally announced and what actually takes place. Since managers create and enforce the innovative culture, there must be a leadership orientation that supports and guides innovation efforts and creates conditions and the learning environment that support experimentation and innovation implementation.

Service managers must note that the external environment of the service firm greatly influence the firm's propensity to innovate. There are three key stakeholder groups i.e. customers, competitors and other stakeholders (such as regulatory agencies) who largely give legitimacy to the innovation that a service firm may create. Managers must note that these legitimacy groups exercise a level of control that determines the success of innovation of the service firm. If the regulatory regime limits the market power of the service firm to release new product or expand, then, innovation is stifled. Consumers are the judges of the innovation and greatly influence the firm's innovativeness. The sophistication of present day consumers leaves service firms without choice but to innovate to meet their changing needs and expectations. The competitiveness of the marketplace also exerts pressures on the service firm to continuously innovate to create new advantages in order to stay relevant. Service firms must therefore be flexible, adaptable and responsive to the changing business environment that is the mainstay of innovation.

In implementing interactivity innovations which looks at creating value innovations through the interface of the service firm and its customers, managers must note the following: (a) the implementation of interactivity innovations must be configured and implemented in combination to maximize their performance effects; (b) in the period of high customer demand, service firms can maximize the performance effect of interactivity

innovations by increasing the level of interactivity innovations; and (c) in the periods of high competitive intensity, service firms must reduce their investments in the interactivity innovations in order to avoid reduction in financial performance. Another practical implication for managers is that service firms must be equally interested in creating a fundamental service philosophy to enhance the ability of their service innovations to garner competitiveness. The implementation of service innovation alone cannot bring about competitiveness; however, service firms must support their innovation implementation with top managers spearheading the implementation. The ability of the service firm's innovations to yield positive results does require a system-wide dedication, which is inspired by the organizational culture and top management. The role of top managers in service innovation implementation must not be tacit but overt as leadership is seen as a strong complementary strategic asset that produces positive externalities.

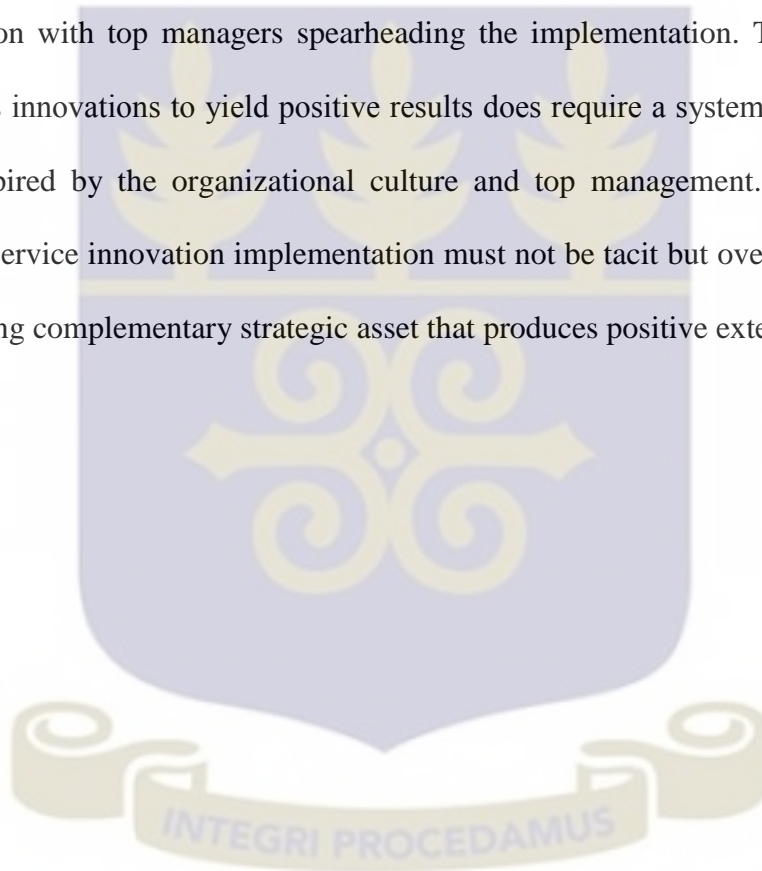
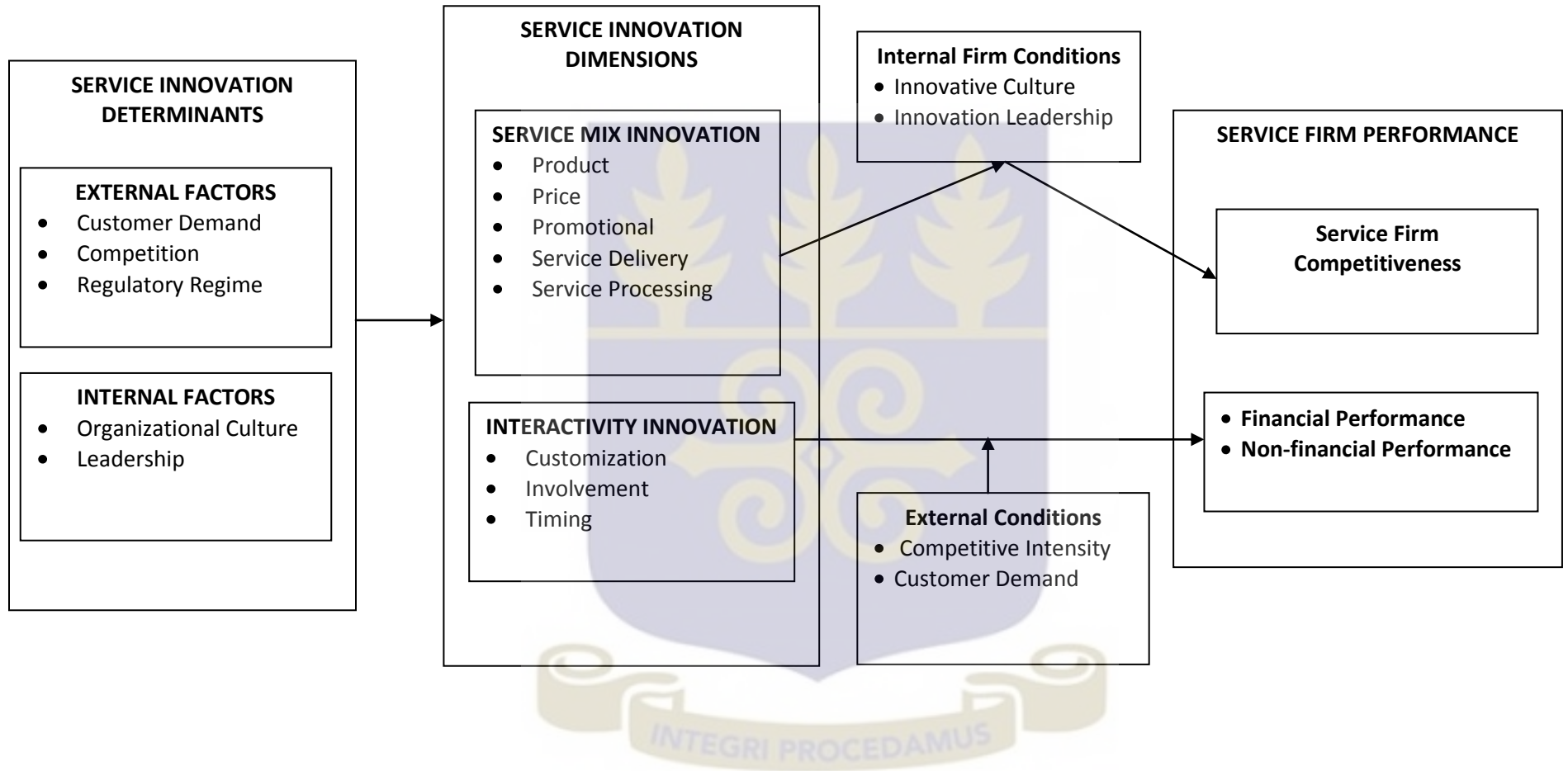


Figure 6. 1: Service Innovation Development and Implementation Framework



6.4 RESEARCH IMPLICATIONS AND LIMITATION OF STUDY

The findings from this thesis provide a lot of implication for future research in the area of service innovation. The study first offers key contribution to knowledge and some directions for future research. Regarding contribution to knowledge, first, while other studies have been based on firm context only, this thesis theoretically and empirically shows two broad internal firm factors that capture the entire firm and three key external stakeholders' determinants of innovation development and implementation in service firm. This study departs from the current determinants of firm specific issues such as R&D budget, firm size and employees. Organizational culture and the leadership direction of service firm are seen as the two main drivers of innovativeness of the firm as the two determines other factors such as firm size, employee behavior and the R&D budget. The external issues that are normally discussed at moderators are shown in this study to be key determinants of innovation propensity for service firm. The external environment is largely controlled by three legitimacy groups of customers, competitors and regulators whose actions largely determine the success of innovation implementation. If a regulatory regime limits the market power of the service firm, then innovation is stifled. Consumers are the judges of the innovation and greatly influence the firm's innovativeness. The sophistication of present day consumers leaves service firms without choice but to innovate. Intense and rapid competitive moves require firms to continuously innovate to create new advantages.

Second, unlike previous studies, this thesis asserts that it is rather high levels of service innovations that maximize performance in service firms, and not just the implementation of such innovations; and that the implementation must be aligned to the prevailing environmental conditions. Additionally, this thesis responds to calls for an investigation

into different contexts in the area of strategy implementation and provides answer to the question of how environmental conditions such as customer demand and competitive intensity influence the performance benefits of service innovations in firms operating in an emerging economy. This thesis shows that for service firms operating in emerging economy service innovations are important in enhancing business success most effectively when high levels of innovations are leveraged; and that greater levels of service innovations are required for both financial and non-financial performance. The study asserts that the combination of different kinds of service innovation will complement each other to enhance service firm performance. This thesis further contribute to the service innovation literature by indicating that the implementation of service innovation can be maximized when environmental conditions are aligned to the implementation of different kinds of innovations. Though previous studies have advised increase in the deployment of service innovation in hyper-competitive markets; however, this study asserts that high levels of competitive intensity dampen the effect of service innovation and that firms must reduce investments in innovation during high competitive periods. Additionally, in order to produce sustainable competitive advantage for service firm, internal firm conditions such as innovative culture and leadership must be aligned with the innovation strategy to bring about complementarity of strategic assets.

This thesis also theoretically and empirically shows different types of service innovation in different categories. This study responds to calls for an application of a synthesis approach to the service innovation construct to deal with criticisms leveled against the subject. This study conceptualizes service innovation in a manner that enables it to deal with the core issues of service, and highlights the obscure and not easily recognizable factors and activities that set service apart from manufacturing. In dealing with “the

stagnant dualism of manufacturing versus service” problem, the current study navigates the conceptual issues and relies on the service mix as an avenue for service firms to create, extend or modify resources, capabilities and/or routines in the form of innovation. This effort therefore provides the needed clarity on proper delineation of service innovation concept and has shown different types of innovation thereby providing avenues through which service firms can innovation and links their innovation to performance.

The thesis contributes to the dynamic capability view by showing that the service mix elements presents micro-foundations upon which service innovation can be developed, implemented and measured to improve firm performance. This study reinforces the notion that possession of a unique bundle of resource alone does not create a sustainable competitive advantage over time and advocates that resources and capabilities should be released, integrated and reconfigured in the form of innovations to enhance firms’ competitiveness. The study also contributes to the co-creation literature by empirically showing that customer-service firm interactions present a rich avenue for the development and implementation of service innovations which are difficult to imitate. This study therefore establishes the service innovation construct to be multidimensional which reflects the various aspect of the service delivery.

In terms of direction for future research, the study gives key guidelines. The service innovation as discussed in this study looks broader than what previous studies have perceived it. The complexity of service as a subject extends to how innovation in service firms can be defined and researched. As indicated earlier, the study of service innovation should be looked at from the firm level rather than the industry level as the practice of

service marketing becomes clearly at the firm level than at the broader industrial level. Research into innovation in service firms should be targeted at the various activities service firms perform and how they can innovate through those activities. As the synthesis perspective explains, the service innovation is not entirely different nor strictly follows manufacturing innovation processes but rather looks for the less easily recognizable factors and activities that set service apart from manufacturing. Future research should therefore look for what sets service apart from manufacturing in the service innovation process. Such areas may include new service design, development and testing, service distribution, service communication and the tangibilization of services.

In empirical terms, future research on service innovation should focus on how service firms can create competitiveness through their innovations base on the service mix and the knowledge of the market and how service firms can innovate internally with their customers. The focus of the service innovations must be on how service firms can encourage innovation among staff and what forms interactivity innovations may take and the contextual implications. As a way forward for future studies in this area, prospective researchers can probe deeper into the service innovation strategy-internal conditions-firm performance relationship by examining the specific service innovations and internal conditions and how the internal conditions transform the service innovations into firm competitiveness and higher financial and non-financial performance. Additionally, it would be worthwhile to examine whether the various models used in this study that only looked at a single emerging economy to assess the generalizability to other economies whose market dynamics and business and national culture may differ.

In terms of research limitations of the thesis, the question that begs for answer is the generalizability of findings, especially the importance of moderating effects of customer demand and competitive intensity and the mediation effect of internal firm conditions in different contexts such as economies that at different stages of economic development. To broaden our understanding of the issues in service innovation and performance on one hand and the moderating and mediating environmental conditions on the other hand, additional research is required to clarify the extent to which such conditions shape the relationship between service innovation and performance outcomes.

Lastly, the current study is situated in Ghana, a single emerging economy, lower middle income and relatively small country which shares many characteristics with other developing and emerging economies and therefore offers rich context to test the impact of service innovation on performance – a strategic orientation theory – from an emerging economies perspective (Acquaah, 2007). However, other emerging markets which are higher on the income and size of GDP may possess some peculiarities and contextual elements that may allow for additional insight and theory development. Further research may consider exploring the effect of cultural factors that may influence the success of implementing service innovations across emerging economies in order to incorporate into service innovation management an additional variable that vary at the national level such as national culture.

References

- Abernathy, W. J. & Utterback, J. M. (1978). Patterns of industrial innovation. *Journal Title: Technology review. Ariel*, 64, 254-228.
- Acquaah, M. (2007). Managerial social capital, strategic orientation, and organizational performance in an emerging economy. *Strategic Management Journal*, 28, 1235–55
- Adams, G. & Shaneveldt, J. (1991). *Understanding Research Methods*. (2nd ed.) New York, Longman
- African Development Bank (ADB) & African Development Fund (ADF). (2012). Republic of Ghana country strategy paper. (2012) (pp. 1–20). Retrieved from [http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Ghana - CSP 2012 - 2016.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Ghana_-_CSP_2012_-_2016.pdf)
- African Economic Outlook. (2013). (Pocket Edition) (pp. 1–31). Retrieved from www.africaneconomicoutlook.org/en/outlook/financial_flows
- Agarwal, R., & Selen, W. (2011). Multi-dimensional nature of service innovation: operationalisation of the elevated service offerings construct in collaborative service organisations. *International Journal of Operations & Production Management*, 31(11), 1164-1192.
- Aiken, L.S., & West, S.G. (1991). *Multiple Regression: Testing and Interpreting Interactions*. Sage: Newbury Park, CA
- Akimova, I. (2000). Development of market orientation and competitiveness of Ukrainian firms. *European Journal of Marketing*, 34(9/10), 1128-1148
- Alabi, G., Alabi, J., & Mohammed, I. (2013). Congruence between national policy for science and humanities enrolment ratio and labour market demand in Ghana. *Education Research and Reviews*, 8(10), 708–719.

- Alam, I., & Perry, C. (2002). A customer-oriented new service development process. *Journal of Services Marketing*, 16(6), 515-34.
- Alam, I. (2011). Exploring cross-national differences in service innovation process and strategy in developing and developed nations. *Journal of Service Management*, 22(5), 586-606
- Albaum, G. (1997). The Likert Scale Revisited: An Alternate Version. *Journal of the Market Research Society*. 39, 331-348.
- Alegre, J., Lapidra, R., & Chiva, R. (2006). A measurement scale for product innovation performance. *European Journal of Innovation Management*, 9(4), 333-346.
- Amit, R., & Shoemaker, P. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14, 33-46.
- Anderson, J. C., & Gerbing, D. (1991). Predicting the performance of measures in a confirmatory factor analysis with a pretest assessment of their substantive validities. *Journal of Applied Psychology*, 76(5), 732-740.
- Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Anderson, P.F. (1986). One method in consumer research: a critical relativist perspective. *Journal of consumer Research*, 13(2), 155-177.
- Armstrong, J. B., & Overton, T.S. (1977). Estimating Non-response Bias in Mail Surveys, *Journal of Marketing Research*, 14(August), 396-402.
- Arnold, M. J., & Reynolds, K.E. (2003). Hedonic shopping motivations. *Journal of Retailing*, 79(2), 77-95.

- Atuahene-Gima, K. (2005). Resolving the Capability–Rigidity Paradox in New Product Innovation. *Journal of Marketing*, 69, (October), 61–83
- Avlonitis, G. J., Papastathopoulou, P.G. & Gounaris, S.P. (2001). An empirically-based typology of product innovativeness for new financial services: success and failure scenarios. *Journal of Product Innovation Management*, 18 (5), 324-42.
- Bagozzi, R. P., & Yi, Y. (2012). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 14(1), 33–46
- Bain, J. S. (1951). Relation of profit ratio to industry concentration: American manufacturing 1936-1940. *Quarterly Journal of Economics* 65, 293-324.
- Baker, W. E., & Sinkula, J.M., (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of Small Business Management* 47(4), 443–464
- Barney, J. B. (1986). Organizational culture: can it be a source of sustained competitive advantage?. *Academy of management review*, 11(3), 656-665.
- Barney, J. B. (1991). “Firm resources and sustained competitive advantage”, *Journal of Management*, 17, 99-120.
- Barras, R. (1986). Towards a theory of innovation in services. *Research policy*, 15(4), 161-173.
- Baumol, W.J. (2002). *The Free-Market Innovation Machine: Analyzing the Growth Miracle of Capitalism*. Princeton University Press: Princeton, NJ.
- Berry, L. L., Shankar, V., Parish, J.T., Cadwallader, S. & Dotzel, T. (2006). Creating New Markets Through Service Innovation, *MIT Sloan Management Review*, 47(2), 54-63
- Berthon, P., & John, J. (2006). From Entities to Interfaces: Delineating Value in Customer-Firm Interactions”, In, *The Service-Dominant Logic of Marketing –*

- Dialog, Debate, and Directions, Lusch, R. F. and S. L. Vargo (eds.), M.E. Sharpe, Armonk, New York, pp. 196-207.
- Bitner, M. J., Ostrom, A. L., & Morgan, F. N. (2008). Service blueprinting: a practical technique for service innovation. *California Management Review*, 50(3), 66-94.
- Bonoma, T. V. (1985). Case research in marketing: opportunities, problems, and a process. *Journal of Marketing Research*, 22, 199-208.
- Booms, B. H., & Bitner, M.J. (1981). Marketing strategies and organization structures for service firms, in Donnelly, J.H. and George, W.R. (Eds), *Marketing of Services*, American Marketing Association, Chicago, IL, 47-51.
- Booz, A. H., (1982) "New Product Development in the 1980's". *Booz, Allen and Hamilton, New York, NY* (1968).
- Borden, N. H. (1965). The concept of the marketing mix, in Schwartz, G., *Science in Marketing*, John Wiley & Sons, New York, NY, 386-97.
- Boso, N., Story, V. M., & Cadogan, J. W. (2013). Entrepreneurial orientation, market orientation, network ties, and performance: Study of entrepreneurial firms in a developing economy. *Journal of Business Venturing*, 28, 708-727
- Brown, B. & Anthony, S.D. (2011). How P&G tripled its innovation success rate. *Harvard Business Review*, 89(6), 64-72.
- Bryne, B. M. (2010). Structural equation modeling with AMOS, basic concepts, applications and programming, 2nd Edition, Routledge: New York
- Cadogan, J. W., Cui, C.C., Morgan, R. E., & Story, V.M. (2006). Factors facilitating and impeding the development of export market-oriented behavior: A study of Hong Kong manufacturing exporters. *Industrial Marketing Management* 35, 634–647

- Cakar, N. & Erturk, A. (2010). Comparing innovation capability of small and medium-sized enterprises: Examining the effects of organizational culture and empowerment. *Journal of Small Business Management*, 48(3), 325-359.
- Calantone, R. J., Cavusgil, S. T. & Zhao, Y. (2002). Learning orientation, firm innovation capability, and firm performance. *Industrial marketing management*, 31(6), 515-524.
- Camacho, J. A. & Rodríguez, M. (2005). How innovative are services? An empirical analysis for Spain. *The Service Industries Journal*, 25(2), 253-271.
- Carlborg, P., Kindström, D. & Kowalkowski, C. (2014). The evolution of service innovation research: a critical review and synthesis. *The Service Industries Journal*, 34(5), 373-398.
- Castro, L. M., Montoro-Sanchez, A. & Ortiz-De-Urbina-Criado, M. (2011). Innovation in services industries: current and future trends. *The Service Industries Journal*, 31(1), 7-20.
- Cavaye, A.L.M. (1996). Case study research: a multi-faceted research approach for IS. *Information Systems Journal* 6 227-242.
- Chen, J. S. & Tsou, H.-T. (2012). Performance effects of IT capability, service process innovation, and the mediating role of customer service. *Journal of Engineering and Technology Management*, 29, 71–94
- Chesbrough, H. (2005). The HBR List: Breakthrough Ideas for 2005. *Harvard Business Review*; Organization for Economic Cooperation and Development, Report on “Promoting Innovation in Services,” October 14, pp 1-52.
- Chesbrough, H. W. (2003). *Open Innovation. The New Imperative for Creating and Profiting from Technology*, Harvard Business School Press: Boston, MA.

- Child, J. (1972). Organizational Structure, Environments and Performance: The Role of Strategic Choice. *Sociology*, 6 1-22
- Christie, M., Rowe, P., Perry, C. & Chamard, J. (2000). Implementation of Realism in case study Research methodology. *International Council for Small Business, Annual Conference*, 1-36.
- Churchill, G.A. (1995). *Marketing Research: Methodological Foundations*. 6th ed. Fort Worth: Dryden Press.
- Coombs, R. & Miles, I. (2000). Innovation, Measurement and Services: The New Problematique, pp. 85-103 in Metcalfe, J. S. and I. Miles (eds.), *Innovation Systems in the Service Economy. Measurement and Case Study Analysis*, Kluwer, Boston.
- Cooper, D. R., & Schindler, P. S. (2006). *Business research methods* (9.ed. ed.). Boston, Mass.: Irwin/McGraw-Hill.
- Cooper, R. G. & Kleinschmidt, E.J. (1995). Benchmarking the firm's critical success factors in new product development. *Journal of Product Innovation Management*, 12(5), 374-91.
- Cooper, R. G., & de Brentani, U. (1991). New industrial financial services: what distinguishes the winners. *Journal of Product Innovation Management*, 8(2), 75-90.
- Coutelle-Brillet, P., Riviere, A. & des Garets, V. (2014). Perceived value of service innovation: a conceptual framework. *Journal of Business & Industrial Marketing* 29(2), 164– 172
- Crossan, M. M. & Apaydin, M. (2010). A Multi-Dimensional Framework of Organizational Innovation: A Systematic Review of the Literature. *Journal of Management Studies*, 47(6), 1154-1191

- Crossan, M. M. & Hulland, J. (2002). Leveraging knowledge through leadership of organizational learning. In Choo, C. and Bontis, N. (Eds), *Strategic Management of Intellectual Capital and Organizational Knowledge: A Collection of Reading*. New York: Oxford University Press, 711–24.
- Crossan, M. M. & Hulland, J. (2002). Leveraging knowledge through leadership of organizational learning. In Choo, C. and Bontis, N. (Eds), *Strategic Management of Intellectual Capital and Organizational Knowledge: A Collection of Reading*. New York: Oxford University Press, 711–24.
- Crossland, C. & Hambrick, D. C. (2007). How national systems differ in their constraints on corporate executives: a study of CEO effects in three countries. *Strategic Management Journal*, 28, 767–89.
- Csaba, F. F. & Askegaard, S. (1999). Malls and the orchestration of the shopping experience in a historical perspective, *Advances in Consumer Research*, 26, 34-40.
- D'Aveni, R. A. (1994). *Hypercompetition: Managing the Dynamics of Strategic Maneuvering*. New York: Free Press.
- Damanpour, F. & Gopalakrishnan, S. (2001). The dynamics of the adoption of product and process innovations in organizations. *Journal of Management Studies*, 38(1), 45-65
- Damanpour, F. (1991). Organizational innovation – a meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34, 555–90
- Darroch, J. & McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210-22

- Dashwood, H. S. & Puplampu, B. B. (2010). Corporate social responsibility at golden star resources, Ghana: A multiperspective collaborative case study report (pp. 1–66). Retrieved from http://www.ryerson.ca/content/dam/csrinstitute/current_projects/
- de Brentani, U. (2001). Innovative versus incremental new business services: different keys for achieving success. *Journal of Product Innovation Management*, 18, 169–87.
- den Hertog, P., Van der Aa, W. & de Jong, M. W. (2010). Capabilities for managing service innovation: towards a conceptual framework. *Journal of Service Management*, 21(4), 490-514.
- Deng, S. & Dart, J. (1994). Measuring market orientation: A multi-factor, multi-item approach. *Journal of Marketing Management*, 10(8), 725-742.
- Denzin, N. K. & Lincoln, Y. S. (2000). *Handbook of qualitative research* (2.ed. ed.). Thousand Oaks, US: Sage
- Deshpande, R. (1983). 'Paradigms Lost: On theory and Method in Research in Marketing', *Journal of Marketing*, 47, 101-119.
- Dess, G. G. & Picken, J. C. (2000). Changing roles: leadership in the 21st century'. *Organizational Dynamics*, 28, 18–34.
- DeVellis, R. (2003). *Scale development: Theory and applications*. Thousand Oaks, CA: Sage
- Dierckx, I. & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35, 1504-1511.
- DiMaggio, P. J. & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 147-160.

- Drejer, I. (2002). *A Schumpeterian Perspective on Service Innovation*, Danish Research Unit For Industrial Dynamics Working Paper No 02-09
- Drew, S. (1995). Strategic benchmarking: innovation practices in financial institutions. *International Journal of Bank Marketing*, 13(1), 4-16.
- Dube, L. & Pare, G. (2003). Rigor in information systems positivist case research: current practices, trends, and recommendations. *MIS Quarterly* 27(4) 597-635.
- Easterly-Smith, M., Thorpe, R. & Lowe, K. (1991). *Management research: An introduction*. Sage publications, London.
- Edvardsson, B., Gustafsson, A. and Roos, I. (2005). Service portraits in service research: a critical review. *International Journal of Service Industry Management*, 16(1), 107-21.
- Eisenhardt, K. & Martin, J. (2000). Dynamic capabilities: what are they? *Strategic Management Journal* , 21,1105-1121.
- Engstrom, A. & Saheli-Sangari, E. (2007). Assessment of Business-to-Business (B2B) e-Marketplaces' Performance. Doctoral Thesis, Lulea University of Technology.
- Eriksson, L. T. & Wiedersheim-Paul, F. (1997). *Att utreda, forska och rapportera* (6.ed. ed.). Stockholm: Liberekonomi.
- Evangelista, R. and Savona, M. (2001). *Innovation, employment and skills in services; Firm and sectoral evidence*. Eindhoven Center for Innovation Studies Conference, The Netherlands, 20-23 September 2001
- Felekoglu, B. & Moultrie, J. (2014). Top Management Involvement in New Product Development: A Review and Synthesis. *Journal of Product Innovation Management*, 31(1), 159-175.
- Fischer, A. (2011). Recognizing opportunities: initiating service innovation in PSFs. *Journal of Knowledge Management*, 15(6), 915-927

- Flint, D. J. & Mentzer, J. T. (2000). Logisticians as marketers: their role when customers' desired value changes. *Journal of Business Logistics*, 21(2), 19-45.
- Flint, D. J., Larsson, E., Gammelgaard, B. & Mentzer, J.T. (2005). Logistics innovation: a customer value-oriented social process. *Journal of Business Logistics*, 26(1), 113-47.
- Forlani, E. (2010). Competition in the service sector and the performances of manufacturing firms: Does liberalization matter? https://lirias.kuleuven.be/bitstream/123456789/387038/1/cesifo1_wp2942.pdf
- Fornell, C. & Larcker D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gadrey, J., Galloui, F. & Weinstein, O. (1995). New modes of innovation: how services benefit industry. *International Journal of Service Industry Management*, 6(3), 4-16.
- Galende, J. & de la Fuente, J.M. (2003). Internal factors determining a firm's innovative behaviour. *Research Policy*, 32(5), 715-36.
- Gallego, J., Rubalcaba, L. & Hipp, C. (2013). Organizational innovation in small European firms: A multidimensional approach. *International Small Business Journal*, 31(5), 563-579.
- Gallouj, F. & Weinstein, O. (1997). Innovation in services, *Research Policy* 26, 537-556.
- Gallouj, F. (2002). Innovation in services and the attendant old and new myths. *The Journal of Socio-Economics*, 31(2), 137-154.
- Gaynor, G. (2002). *Innovation by design: what it takes to keep your company on the cutting edge*. Amacom American Management Association, New York, NY

- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25(2): 186–192.
- Gershuny, J. & Miles, I. (1983). *The new service economy: the transformation of employment in industrial societies*. London: Frances Pinter.
- Ghana Statistical Service. (2014). www.gss.gov.gh accessed on August 11, 2014
- Godfrey, P. C. & Hill, C. W. L. (1995). The problem of unobservable in strategic management research. *Strategic Management Journal* 16 (7) 519-533.
- Goldstein, S. M., Johnston, R., Duffy, J. & Rao, J. (2002). The service concept: the missing link in service design research? *Journal of Operations Management*, 20(2), 121-34.
- Grant, R.M. (1996). Prospering in Dynamically-Competitive Environments: Organizational Capability as Knowledge Integration. *Organization Science*, 7(4), 375-387.
- Grawe. S. J., Chen, H. & Daugherty, J. P. (2009). The relationship between strategic orientation, service innovation, and performance. *International Journal of Physical Distribution & Logistics Management*, 39(4), 282-300
- Griffith, R. & Harrison, R. (2004). The link between product market reform and macro-economic performance: European Economy, European Commission, Directorate-General for Economic and Financial Affairs, Economic Papers N. 209, August.
- Guba, E. G. (1990). The alternative paradigm dialog. In: E. G. Guba (ed.), *The Paradigm Dialog*. Newbury Park, CA: Sage 17–30
- Guba, E. G., & Lincoln, Y. S. (1994). Competing Paradigms in Qualitative Research. In Denzin, N. K. & Lincoln, Y. S. (ed.). In *Handbook of qualitative research*. Thousand Oaks, Calif.: Sage.

- Gungor, O. D. & Gozlu, S. (2012). Influencing factors of innovation for Turkish companies. *International Journal of Quality and Service Sciences*, 4(4), 374-386
- Hague, N. P. (2002). *Market research: A Guide to Planning, Methodology And Evaluation*. 3rd ed. Great Britain: Kogan Page Limited.
- Hair, J. F. Jr., Babin, B., Money, A. H. & Samouel, P. (2003). *Essentials of business research methods*. New York: Wiley.
- Hair, J. F., Black, W. C., Babib, B. J., Anderson, R. E. & Tatham, R. L. (2007). *Multivariate data analysis*, Pearson, New Jersey.
- Hambrick, D. (2007). Upper Echelons Theory: An Update. *Academy of Management Review* 32(2): 334–343.
- Hambrick, D. and Mason P, (1984). Upper Echelons Theory: The Organization as a Reflection of its Top Managers. *Academy of Management Review*, 9(2). 193–343.
- Hatcher, L, (1994). *A step-by-step approach to using the SAS(R) system for factor analysis and structural equation modeling*, Cary, NC: SAS Institute.
- Hauser, J., Gerard, J., Tellis, G. J. & Griffin, A. (2006). Research on Innovation: A Review and Agenda for Marketing Science. *Marketing Science*, 25(6), 687-717.
- Healy, M. & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm, *Qualitative Market Research*, 3(3), 118-126
- Helfat, C., Finkelstein, S., Mitchell, W., Peteraf, M.A., Singh, H., Teece, D. & Winter, S. (2007). *Dynamic Capabilities: Understanding Strategic Change in Organizations*. Malden, MA: Blackwell.

- Henwood, K. L. & Pidgeon, N.F. (1993). Qualitative research and psychological theorising”, in Hammersley, M. (Ed.), *Social Research: Philosophy, Politics & Practice*, Sage Publications, London, pp. 14-33.
- Hinkin, T. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21(5), 967-988.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1(1), 104-21
- Hinson, R. (2006). *African Marketing Practice Cases from Ghana*, Sedco Publishing: 43-64.
- Hortelano, M. D. E. & Gongález-Moreno, Á. (2007). Innovation in service firms: Exploratory analysis of innovation patterns. *Management Research: The Journal of the Iberoamerican Academy of Management*, 5(2), 113-126.
- Hyde, K. F. (2000). Recognising deductive processes in qualitative research. *Qualitative Market Research: An International Journal*, 3(2) 82-89
- IMD World Competitiveness Yearbook. (2012). IMD World Competitiveness Center, Lausanne, Switzerland
- IMF Economic Outlook. (2012)
- International Labour Organization (ILO). (2012). Up-scaling Local Economic Development: Lessons from the Ghana Decent Work Programme (pp. 1–40). Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---led/documents/publication/wcms_201096.pdf
- James, L. R., Muliak, S. A. & Brett, J. M. (2006). A tale of two methods. *Organizational Research Method*, 9(2): 233–244.
- Janićijević, N. (2012). Organizational culture and strategy. *Ekonomika preduzeća*, 60(3-4), 127-139.

- Jaw, C., Lo, J. & Lin, Y. (2010). The determinants of new service development: service characteristics, market orientation, and actualizing innovation effort. *Technovation*, 30(4), 265-77
- Jaworski, B. J. & Kohli, A. K. (1993). Market orientation: antecedents and consequences. *The Journal of marketing*, 53-70.
- Johne, A. & Storey, C. (1998). New Service Development: A Review of the Literature and Annotated Bibliography. *European Journal of Marketing*, 32(3-4), 184-251.
- Kandampully, J. & Duddy, R. (1999). Competitive advantage through anticipation, innovation and relationships. *Management Decision*, 37(1), 78-103.
- Kelloway, E. K. (1998). Using LISREL for structural equation modeling: A researcher's guide. Thousand Oaks, CA: Sage Publications.
- Ketokivi, M. A., & Schroeder, R. G. (2004). Perceptual measures of performance: fact or fiction?. *Journal of Operations Management*, 22(3), 247-264.
- Khan, A. M. (1990). Innovation in small manufacturing firms. In J. Allesch (Ed.), *Consulting in innovation*. Amsterdam: Elsevier.
- Kindstrom, D. & Kowalkowski, C. (2014). Service innovation in product-centric firms: a multidimensional business model perspective. *Journal of Business & Industrial Marketing* 29(2), 96– 111
- King, R. W. (2000). Measuring police innovation: issues and measurement. *Policing: An International Journal of Police Strategies & Management*, 23(3), 303-317
- Ko, H-T., & Lu, H-P. (2010). Measuring innovation competencies for integrated services in the communications industry. *Journal of Service Management*, 21(2), 162-190
- Koberg, C. (2003). An empirical test of environmental, organizational, and process factors affecting incremental and radical innovation. *The Journal of High Technology Management Research*, 14(1), 21-45.

- Koc, T. (2007). Organizational determinants of innovation capacity in software companies. *Computers & Industrial Engineering*, 53, 373–385
- Kohler, T., Fueller, J., Stieger, D., & Matzler, K. (2011). Avatar-based innovation: Consequences of the virtual co-creation experience. *Computers in Human Behaviour*, 27, 160–168
- Kotler, P., & Armstrong, G. (1989). *Principles of Marketing*, 4th ed., Prentice-Hall, Englewood Cliffs, N.J.
- Krishnan, R, Martin, X & Noorderhaven, N (2006). When does trust matter to alliance performance. *Academy of Management Journal*, 49, 894-917
- Ku, Y. C., & Tai, Y.M. (2013). What happens when recommendation system meets reputation system? The impact of recommendation information on purchase intention. In Proceedings of the Annual Hawaii International Conference on System Sciences (pp. 1376–1383)
- Kumar, R. (1996). *Research Methodology - A Step by Step Guide for Beginners*. Sydney: Addison Wesley.
- Kupper, C. (2001). *Service Innovation - a review of the state of the art*. Working paper. University of Munich, Munich.
- Lee, C. (2007). Strategic alliances influence on small and medium firm performance. *Journal of Business Research* 60, 731–741.
- Li, H. & Atuahene-Gima, K. (2001). Product Innovation Strategy and the Performance of New Technology Ventures in China. *Academy of Management Journal*, 44(6), 1123-1134
- Li, J. J. & Zhou, K. Z. (2010). How foreign firms achieve competitive advantage in the Chinese emerging economy: managerial ties and market orientation. *Journal of Business Research*, 63 (8), 856–862

- Lievens, A. & Moenaert, R. K. (2001). Communication flows during financial service innovation. *Journal of Bank Marketing*, 19(2), 68-88.
- Lin, J. S. C. & Hsieh, P. L. (2006). The role of technology readiness in customers' perception and adoption of self-service technologies. *International Journal of Service Industry Management*, 17(5), 497-517.
- Lindman, M.T. (2002). Open or closed strategy in developing new products? A case study of industrial NPD in SMEs. *European Journal of Innovation Management*, 5(4), 224-36.
- Little, T. D., Bovaird, J. A. & Widaman, K. F. (2006). On the merits of orthogonalizing powered and product terms: implications for modeling interactions among latent variables. *Structural Equation Modeling*, 13(4), 497-519
- Lovelock, C. H. & Wirtz, J. (2007). *Services Marketing: People, Technology, Strategy*, Pearson Prentice-Hall: Upper Saddle River, NJ.
- Lu, I. Y., Yang, C. Y. & Tseng, C. J. (2009). Push-Pull interactive model of service innovation cycle - under the service encounter framework. *African Journal of Business Management*, 3(9), 433-442
- Lytinen, K., & Rose, G. M. (2003). The disruptive nature of information technology innovations: The case of Internet computing in systems development organizations. *MIS Quarterly*, 27(4), 557-563.
- Mackinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G. & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83-104
- Madjar, N., Oldham, G. R. & Pratt, M. G. (2002). There's no place like home? The contributions of work and non-work creativity support to employees' creative performance. *Academy of Management Journal*, 45, 757-67.

- Mahmoud, M. A., Kastner, A. & Yeboah, J. (2010). Antecedents, environmental moderators and consequences of market orientation: A study of pharmaceutical firms in Ghana. *Journal of Medical Marketing*, 10(3), 231–244.
- Malhotra, N. K. and Birks, D. F. (2007). Marketing research: an applied approach. (3rd ed.) Prentice Hall, UK.
- Mansury, M. A. & Love, J. H. (2008). Innovation, productivity and growth in US business services: A firm-level analysis. *Technovation*, 28(1), 52-62.
- Marsh, H.W., Wen, Z., Hau, K.T., Little, T.D., Bovaird, J.A., Widaman, K.F., (2007). Unconstrained structural equation models of latent interactions: contrasting residual- and mean-centered approaches. *Structural Equation Modeling: A Multidisciplinary Journal* 14 (4), 570–580
- Marshall, C. & Rossman, G. B. (1999). *Designing qualitative research* (3.ed. ed.), Thousand Oaks: Sage.
- Martins, E. C. & Terlanche, F. (2003). Building organizational culture that stimulates creativity and innovation. *European Journal of Innovation management* 6(1), 64-74
- Mason, E. (1939). Price and production policies of large-scale enterprise. *American Economic Review*, 29, 61–74.
- Mathwick, C., Malhotra, N. & Rigdon, E. (2000). Experiential value: conceptualization, measurement, and application in the catalog and internet shopping. *Journal of Retailing*, 77(1), 39-56.
- McDermott, C. M & Prajogo, D. I. (2012). Service innovation and performance in SMEs. *International Journal of Operations & Production Management*, 32(2), 216-237

- Menor, L. J., Tatikonda, M. V. and Sampson, S. E. (2002). New service development: areas for exploitation and exploration. *Journal of Operations Management*, 20(2), 135-57.
- Merriam, S. (1988). *Case study research in education: A qualitative approach*, Jossey-Bass, California.
- Miles, M. B. & Humberman, A. M. (1994). *Qualitative data analysis: An expanded source book*, Thousand Oaks, CA: Sage.
- Montoya-Weiss, M. M. & Calantone, R. J. (1994). Determinants of new product performance: a review and meta-analysis. *Journal of Product Innovation Management*, 11, 397-417.
- Morgan, N. A., Katsikeas, C. S. & Vorhies, D. W. (2012). Export marketing strategy implementation, export marketing capabilities, and export venture performance. *Journal of the Academy of Marketing Science* 40, 271–289
- Moser, M. R. & Morrissey, B. (1984). Achievement recognition in a research and development unit. *Engineering Management International*, 3(1), 49-54.
- Mumford, M. D. & Licuanan, B. (2004). Leading for innovation: conclusions, issues, and directions. *Leadership Quarterly*, 15, 163–71.
- Nam, K., & Lee, N. H. (2010). Typology of Service Innovation from Service-Dominant Logic Perspective. *J. UCS*, 16(13), 1761-1775.
- Nambisan, S. & Nambisan, P. (2008). How to profit from a better virtual customer environment. *MIT Sloan Management Review*, 49(3), 53-61.
- Narteh, B. & Owusu-Frimpong, N. (2011). An analysis of students' knowledge and choice criteria in retail bank selection in sub-Saharan Africa: The case of Ghana. *International Journal of Bank Marketing*, 29(5), 373-397.

- Neuman, W. L. (1997). *Social Research Methods, Qualitative and Quantitative Approaches*, Allyn & Bacon, Needham Heights, MA.
- Neuman, W. L. (2006). *Social research methods: qualitative and quantitative approaches*, 6th Ed, Pearson.
- Nunnally, J. C. (1978). *Psychometric Theory*. 2nd ed., McGraw-Hill Book Company: New York, NY.
- Oke, A. (2007). Innovation types and innovation management practices in service companies. *International Journal of Operations & Production Management*, 27(6), 564-587
- Oliver, C. (1997), Sustainable competitive advantage: Combining institutional and resource-based views, *Strategic Management Journal*, 18, 697-713
- Oppenheim, N. A. (1992). *Questionnaire Design. Interviewing and Attitude Measurement*. New ed. Great Britain: Printer Publication.
- Ostrom, A. L. Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V, Demirkan, Haluk & Rabinovich, E. (2010). Moving Forward and Making a Difference: Research Priorities for the Science of Service. *Journal of Service Research*, 13(1), 4-36.
- Otero-Neira, C., Lindman, M. T. & Fernández, M. J. (2009). Innovation and performance in SME furniture industries: An international comparative case study. *Marketing Intelligence & Planning*, 27(2), 216 - 232
- Owusu-Frimpong, N. (2008). An evaluation of customers' perception and usage of rural community banks (RCBs) in Ghana. *International Journal of emerging markets*, 3(2), 181-196.
- Pace, R. W., & Stephan, E.G. (1996). Paradigms of competitiveness. *Competitiveness Review*, 6(1), 8-13.

- Pantano, E. & Viassone, M. (2014). Demand pull and technology push perspective in technology-based innovations for the points of sale: The retailers evaluation. *Journal of Retailing and Consumer Services*, 21(1), 41–47
- Pantano, E. (2014). Innovation drivers in retail industry. *International Journal of Information Management*, 34 344–350
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing* 64(1), 12-40.
- Parente, S. & Prescott, E. (1994). Barriers to technology adoption and development. *Journal of Political Economy*, 102(2), 298-321.
- Parkhe, A. (1993). Messy research, methodological predispositions, and theory development in international joint ventures. *Academy of Management review* 18 (2), 227-268.
- Payne, F. A., Storbacka, K. & Frow, P. (2008). Managing the co-creation of value, *Journal of the Academy of Marketing Science*, 36 pp83-96
- Perry, C., Riege, A. & Brown, L. (1999). Realism's role among scientific paradigms in marketing research, *Irish Marketing Review*, 12(2), 16-23.
- Peterson, A. R. (2000). *Constructing Effective Questionnaires*. USA: Sage Publications Incorporated.
- Phillips, E. M. & Pugh, D. S. (2000). *How to get a PhD: a handbook for students and their supervisors* (3.ed). Buckingham: Open University Press.
- Ping, R. A. Jr. (1995). A parsimonious estimation technique for interaction and quadratic latent variables. *Journal of Marketing Research*, 32(August), 336–347
- Podsakoff, P. M., MacKenzie, S. B., Jeong-Yeon, L. & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88 (5), 879–903
- Porter, M. E. (1990). *The Competitive Advantage of Nations*. New York (NY): Free Press.

- Prajogo, D. I. (2006). The relationship between innovation and business performance – a comparative study between manufacturing and service firms in Australia. *Knowledge and Process Management Journal*, 13(3), 218-25.
- Proctor, T. (2005). *Essentials of Marketing Research*. 4th ed. USA: Pearson Educational Limited.
- Pujari, D., Peattie, K., & Wright, G. (2004). Organizational antecedents of environmental responsiveness in industrial new product development. *Industrial Marketing Management*, 33(5), 381-391.
- Riefler, P., Diamantopoulos, A. & Siguaw, J. A. (2012). Cosmopolitan consumers as a target group for segmentation. *Journal of International Business Studies*, 43, 285–305
- Ritter, T. (2006). Communicating firm competencies: marketing as different levels of translation. *Industrial Marketing Management*, 35(4), 222-31
- Robson, C. (2002). *Real world research*. (2nd ed), Oxford: Blackwell
- Saemundsson, R. J. & Candi, M. (2014). Antecedents of Innovation Strategies in New Technology-based Firms: Interactions between the Environment and Founder Team Composition. *Journal of Product Innovation Management* 31(5):939–955
- Salunke, S., Weerawardena, J., & McColl-Kennedy, J. R. (2011). Towards a model of dynamic capabilities in innovation-based competitive strategy: insights from project-oriented service firms. *Industrial Marketing Management*, 40(8), pp. 1251-1263.
- Saunders, M., Lewis, P. & Thornhill, A. (2007). *Research methods for business students*. (4th ed.) Prentice Hall, UK
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). John Wiley & Sons.

- Schiantarelli, F. (2008). Product Market Regulation and Macroeconomic Performance: A Review of Cross-Country Evidence. World Bank Working Paper, World Bank Latin American Regional Studies Program, August 4
- Schumpeter, J. A. (1934). *The Theory of Economic Development*, Harvard University Press: Cambridge, MA.
- Schumpeter, J. A. (1942). *Capitalism, Socialism and Democracy*. New York: Harper and Brothers.
- Scupola, A. (2012), "Managerial perception of service innovation in facility management organizations" *Journal of Facilities Management*, Vol. 10 No. 3, pp. 198-211.
- Scupola, A., Henten, A., & Nicolajsen, W. H. (2009). E-services: Characteristics, Scope and Conceptual Strengths. *International Journal of E-Services and Mobile Applications*, 1(3), 1-16,
- Smith, M. S. & Albaum. S. G. (2005). *Fundamentals of Marketing Research*. USA. Sage Publications Incorporated.
- Soete, L. & Miozzo, M. (1990) Trade and Development in Services: a Technological Perspective. Working Paper No. 89-031, Maastricht: MERIT
- Souitaris, V. (2002). Firm-specific competencies determining technological innovation: a survey in Greece. *R&D Management*, 32(1), 61-77.
- Spector, P. E. (1987). Using self-report questionnaires in OB research: a comment on the use of a controversial method. *Journal of Organisational Behaviour*, 15, 385-92.
- Stahl, M. J., Barnes, W. K., Gardial, S. F., Parr, W. C. W. & Robert, B. (1999). Customer-value analysis helps strategy. *Quality Progress*, 32(4), 53-58
- Stokes, P. D. (2014). Crossing Disciplines: A Constraint-Based Model of the Creative/Innovative Process. *Journal of Product Innovation Management*, 31(2) 247-258

- Story, V. M., Boso, N., & Cadogan, J. W. (2015). The Form of Relationship between Firm-Level Product Innovativeness and New Product Performance in Developed and Emerging Markets. *Journal of Product Innovation Management*, 32(1), 45-64.
- Sullivan, T. J. (2001). *Methods of social research*. London: Harcourt College Publishers.
- Sundbo, J. (1997). Management of Innovation in Services. *The Service Industries Journal* 17(3), 432-455.
- Teece, D. J., Pisano, G. & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319–1350.
- Tether, B. S. (2005). Do services innovate (differently)? Insights from the European innovometer survey. *Industry and Innovation*, 12(2), 153-84.
- Thakur, R. & Hale, D. (2013). Service innovation: A comparative study of U.S. and Indian service firms. *Journal of Business Research* 66, 1108–1123
- Tidd, J., Bessant, J., & Pavitt, K. (2001). *Managing Innovation – Integrating Technological, Market and Organizational Change*. (2nd ed.), John Wiley & Sons: New York, NY.
- Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, 29(7), 887-902.
- Troilo, G., De Luca, L. M., & Atuahene-Gima, K. (2014). More Innovation with Less? A Strategic Contingency View of Slack Resources, Information Search, and Radical Innovation. *Journal of Product Innovation Management*, 31(2), 259-277.

- Tull, D.S., & Hawkins, D.I. (1994). *Marketing Research*. 5th Ed. New York: Macmillian Publishing Company.
- Tushman, M. L., Anderson, P. C., & O'Reilly, C. (1997). Technology cycles, innovation streams, and ambidextrous organizations: organization renewal through innovation streams and strategic change. *Managing Strategic Innovation and Change*, 3-23.
- Twati, J. M., & Gammack, J.G. (2006). The impact of organisational culture innovation on the adoption of IS/IT: the case of Libya. *Journal of Enterprise Information Management* 19(2), 175 – 191
- Van der Aa, W., & Elfring, T. (2002). Realizing innovation in services. *Scandinavian Journal of Management*, 18(2), 155-171.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68, 1–17.
- Vargo, S. L., Maglio, P. P., & Akaka, A. M. (2008). On value and value co creation: A service systems and service logic perspective. *European Management Journal*, 26, 145–152
- Victorino, L., Verma, R., Plaschka, G., & Dev, C. (2005). Service innovation and customer choices in the hospitality industry. *Managing Service Quality*, 15(6), 555-76.
- Voss, C., Johnston, R., Silvestro, R., Fitzgerald, L., & Brignall, T. (1992). Measurement of innovation and design performance in services. *Design Management Journal*, 3(1), 40-6.
- Wang, C. L. & Ahmed, K. P. (2004). The development and validation of the organizational innovativeness construct using confirmatory factor analysis, *European Journal of Innovation Management*, 7(4), 303-313

- Wang, C. L. (2008). Entrepreneurial orientation, learning orientation, and firm performance. *Entrepreneurship Theory and Practice*, 32(4), 635-657.
- West, M. A., Borrill, C. S., Dawson, J. F., Brodbeck, F., Shapiro, D. A., & Haward, B. (2003). 'Leadership clarity and team innovation in health care'. *Leadership Quarterly*, 14, 393-410.
- West, M. A., Borrill, C. S., Dawson, J. F., Brodbeck, F., Shapiro, D. A. & Haward, B. (2003). 'Leadership clarity and team innovation in health care'. *Leadership Quarterly*, 14, 393-410.
- Wikipedia. (2013). Economy of Ghana. Retrieved November 19, 2013, from http://en.wikipedia.org/wiki/Economy_of_Ghana
- Winter, S.G. (2003). 'Understanding dynamic capabilities', *Strategic Management Journal*, 24, 991-995.
- Woodcock, C. P., Beamish, P. W., & Makino, S. (1994). Ownership-based entry mode strategies and international performance. *Journal of international business studies*, 253-273.
- Woodruff, R. B., & Flint, D. J. (2006). Marketing's service-dominant logic and customer value. In R. F. Lusch & S. L. Vargo (Eds.), *The service dominant logic of marketing: Dialog, debate and directions* (pp. 183-195). Armonk, NY: M.E. Sharpe.
- Woodruff, R.B. (1997). Customer value: the next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139-53.
- World Bank. (2013). Ghana. World economic indicators. Retrieved July 29, 2013, from <http://data.worldbank.org/country/ghana>
- World Bank Global Economic Prospects. (2012). IMF Economic Outlook 2012
- WTO-GATS Fact Book (2005)

www.bog.gov.gh

www.ghanaweb.com

- Yavas, U., Bilgin, Z., & Shemwell, D. J. (1997). Service quality in the banking sector in an emerging economy: a consumer survey. *International Journal of Bank Marketing*, 15(6), 217 – 223
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. (3rd ed.), Thousand Oaks, California: Sage Publications, Inc.
- Yuan, L., Zhous, L., Bruton, G., & Li, W. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy. *Journal of International Business Studies*, 41, 419-436.
- Yusif, B. (2012). Adopting a specific innovation type versus composition of different innovation types: Case study of a Ghanaian bank. *International Journal of Bank Marketing*, 30(3), 218 – 240
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-375.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). *Services Marketing: Integrating Customer Focus across the Firm*, McGraw-Hill, Boston, MA.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science*, 13, 339–351.

APPENDIX: SERVICE INNOVATION SURVEY INSTRUMENT



Dear Sir/Madam,

I am a PhD Researcher at the Marketing and Customer Management Department of University of Ghana Business School. As part of my PhD program, I am embarking on research on “Service Innovation, Competition and Firm Performance of Ghana’s Service Sector” and would be grateful if you would spend few minutes of your time in filling out this questionnaire.

This questionnaire can be filled by any management who is directly involved in innovation of any kind within your service firm. I appreciate your time and effort in filling out this questionnaire. I assure you that all information provided will be used collectively and for academic purpose only. Your completion of this questionnaire indicates that you have volunteered to take part in this research project.

For further clarification and enquiry, you may please contact me or my supervisors:

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SERVICE INNOVATION SURVEY

Please indicate (✓) your level of agreement or otherwise with the following statements regarding the industry within which your company operates.

- | | |
|-----------------------------|--------------------------------------|
| 1. <i>Strongly disagree</i> | 2. <i>Disagree</i> |
| 3. <i>Disagree somewhat</i> | 4. <i>Neither agree nor disagree</i> |
| 5. <i>Agree somewhat</i> | 6. <i>Agree</i> |
| 7. <i>Strongly agree</i> | |

Items	1	2	3	4	5	6	7
Competitive intensity							
Competition in our industry is cutthroat							
There are many promotion wars in our industry							
Anything that one competitor can offer others can match readily							
Price competition is a hallmark of our industry							
One hears of a new competitive move almost every day							
Our competitors are relatively weak							
Regulatory Restrictions	1	2	3	4	5	6	7
Prices are highly regulated in our industry							
There are strict licensing requirements before you enter the market							
For every new service introduction, the firm must go through scrutiny before you launch							
Kind of products and service a firm sells are determined by a regulatory body							
Expansions into other territories are regulated							
The regulatory regime for this industry restricts innovation							
Customer Demand	1	2	3	4	5	6	7
This industry is witnessing demand for services from customers who never bought them before							
Our customers tend to look for new products all the time							
Sometimes our customers are very price sensitive							
New customers tend to have product-related needs that are different from those of our existing customers							
In our kind of business, customers' product preferences change quite a bit over time.							

Please indicate (✓) your level of agreement or otherwise with the following statements regarding your company

- 1. Strongly disagree
- 3. Disagree somewhat
- 5. Agree somewhat
- 7. Strongly agree

- 2. Disagree
- 4. Neither agree nor disagree
- 6. Agree

Innovation leadership	1	2	3	4	5	6	7
We get lot of support from managers if we want to try new ways of doing things							
Management is very cautious in adopting innovative ideas							
Key executives of the firm are willing to take risks to seize and explore “chancy” growth opportunities							
Management actively respond to the adoption of “new ways of doing things” by main competitors							
Senior executives constantly seek unusual, novel solutions to problems							
Senior executives have a demonstrative and risk-taking attitude towards innovations in order to achieve best results							
Innovative culture	1	2	3	4	5	6	7
In our company, we embrace individuals who do things in a different way							
We are willing to try new ways of doing things and seek unusual, novel solutions							
We encourage people to think and behave in original and novel ways							
When we see new ways of doing things, we are last to adopt them in this industry							
When we cannot solve a problem using conventional methods, we improvise on new methods							
The culture of this company encourages enthusiastic participation of all in innovative activities							



Please indicate (√) your level of agreement or otherwise with the following statements regarding your company's innovation activities

- 1. Strongly disagree
- 3. Disagree somewhat
- 5. Agree somewhat
- 7. Strongly agree

- 2. Disagree
- 4. Neither agree nor disagree
- 6. Agree

<i>Product</i>	1	2	3	4	5	6	7
New products in our company often take us up against new competitors							
Our company has introduced more innovative products during the past five years than any other							
Our company is faster in bringing new service offerings into the market than any other							
Our new service introductions offer us new competitive advantage							
Our company is able to differentiate our products from the competition							
<i>Price</i>	1	2	3	4	5	6	7
We always offer competitive prices than competitors							
We have discount structures to attract new and large volume customers							
There is flexibility in our pricing and payments based on customer needs							
We adapt to different kinds of prices for highly sensitive customers							
We do price bundling and tie-in to enable us cross-sell i.e. sell other products							
<i>Promotion</i>	1	2	3	4	5	6	7
Our marketing communication programme is revolutionary in the market							
Our company's most recent product introduction required a new form of advertising and promotion.							
We create awareness on our new products in no time							
We explore new frontiers in terms of media and message type to adequately address the changing media consumption pattern.							
We theme our service experience better than competitors							
<i>Place</i>	1	2	3	4	5	6	7
We always provide ease of access to our service products							
Compared to our competitors, we offer new delivery benefits that aid customers' access to the core benefit of products							
We often allow customers to determine the service delivery location and mode							
We are flexible in terms of service delivery modes to meet customer demands							
<i>Physical evidence</i>	1	2	3	4	5	6	7
Our physical structures create a drawing power and distinguishes us from the competition							
Our business environment encourages customers to enjoy the service experience and not just focus on task-oriented activities							
The atmosphere under which we deliver our service evokes pleasant feelings which add up to delightful service delivery							

<i>Please indicate (√) your level of agreement or otherwise with the following statements regarding your company's innovation activities</i>							
	<i>1. Strongly disagree</i>		<i>2. Disagree</i>				
	<i>3. Disagree somewhat</i>		<i>4. Neither agree nor disagree</i>				
	<i>5. Agree somewhat</i>		<i>6. Agree</i>				
	<i>7. Strongly agree</i>						
Customization	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
Our company is able to alter products, process and personnel structure to meet special needs							
We realign our service systems to suit particular customers within a specific use-situation							
We create special kinds of service experiences based on customer preferences							
Our customers prefer to deal with us because we attend to their individual needs							
Based on previous interactions with clients, we are able to customize a solution for subsequent transactions							
Customer Involvement	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
We allow customers to direct the interaction during service delivery							
We encourage our customers to help us in the production of the quality service							
Our customers co-design and co-produce most of our products							
We encourage our customers to admonish prospective customers to experience our products/services							
We provide incentives to foster participation of customers in new product/service development							
We gather market insights from customers through avenues such as face to face meetings, customer visits or meetings, workshops and customer suggestions							
Timing of service delivery	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
We are always sensitive to and respect the timing needs of our customers							
We respond to customer requests in a prompt manner better than our competitors							
Customers consider the timing of our service delivery as incomparable in the industry							
We operate within hours that are convenient to customers							
When our physical offices are closed, we find ways of meeting the timing needs of our customers							
We are always sensitive to and respect the timing needs of our customers							

OUTCOME

Please indicate (√) your level of agreement or otherwise with the following statements regarding your company's performance relative to other firms in your industry

- | | |
|----------------------|-------------------------------|
| 1. Strongly disagree | 2. Disagree |
| 3. Disagree somewhat | 4. Neither agree nor disagree |
| 5. Agree somewhat | 6. Agree |
| 7. Strongly agree | |

Competitiveness

	1	2	3	4	5	6	7
<i>Our company has this competitive advantage</i>							
Competitive pricing							
Service quality							
Speed of reaction to customer needs							
Company/brand image							
Personal selling							
Product range offered							
Distribution coverage							
Marketing research							
Product performance							
Cost advantage							
After sales service							
Marketing Communication							
<i>What does your company do under hostile business conditions? Rate your company's actions in terms of</i>	1	2	3	4	5	6	7
Stronger emphasis on profit margin							
Frequent price adjustments							
Extra service to justify higher prices							
Increased sales volume							
Carry marginally profitable products to satisfy consumers							
Capitalize on new markets							
Reduce product line							
Introduce new products							
Increase R&D							
Increase promotion							
Broaden sales force responsibility							
Re-examine distribution channels							

Performance

<i>Company performance</i>							
Last year our company showed much better performance across these indicators than the main competitors (1 = Much worse performance, 7 = much better performance').							
<i>Financial Performance</i>	1	2	3	4	5	6	7
Better profit							
Better sales volume							
Better market share							
Better return on investment							
Better cash flow							
<i>Non-financial performance</i>	1	2	3	4	5	6	7
Service quality							
Customer satisfaction							
Employee satisfaction							

Please state the average growth rate (in % terms) in the following areas over the past three years

1. Sales volume growth
2. Profit margin growth
3. Market share growth
4. Overall profitability

Please indicate your rate (in % terms) of return on investment for last year

5. Return on investment
6. Return on assets

FIRM's characteristics

1. Number of employees
2. Annual sales
3. How old is your firm (please state in years).....
4. Please state your position in your company.....
5. What kind of service does your firm provide.....

OWNERSHIP STRUCTURE

6. Foreign owned () locally owned () foreign and
locally owned ()
7. Single owner () multiple owners ()
8. Listed on the stock exchange () Private company ()

THANK YOU