# IMPACT OF FIRM INNOVATIVENESS ON PERFORMANCE OF MICRO AND SMALL FAMILY BUSINESS IN GHANA: THE MODERATING ROLE OF EXTERNAL CHARACTERISTICS


**By**

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## DECLARATION

I hereby declare that this project work is the result of my own effort and that no part of it has been presented for another certificate in this University or elsewhere and that all references cited therein have been accordingly acknowledged.



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## DEDICATION

I dedicate this project work to my dear wife, Mrs. Alberta Adjei Gotah who has consistently given me the moral, financial and above all spiritual support.

## ACKNOWLEDGEMENT

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## ABSTRACT

The general and development objective of the study was on the impact of firm innovativeness on performance of micro and small family businesses in Ghana: the moderating role of external characteristics. Over the past decades, micro and small and medium scale enterprises (SME) have contributed immensely to the growth of Gross Domestic Product (GDP) in Ghana hence guarantee employment, stable income and growth. The government through economic restructure programmes introduced policies that improved on the country's trade agreement that has resulted in the competitiveness of micro and small enterprises in the global market. Structured questionnaires were used to collect primary data and analysed for the study. In all, 200 small family businesses (SFB) found in various activities with a maximum of 10 employees part took the study through purposive-random sampling approach. Data collected were expressed quantitatively to enable comparative and statistics inference using Statistical Package Social Service (SPSS) and regression analysis were then performed in analysing the perceived moderating effect of the firms' innovation and external characteristics on performances. The study realised that the impact of innovativeness on small family firm performance is positive. Product, technology and customer services innovation generally have positive effect on micro and small family firm performance. The strength of impact of innovativeness is dependent on external factors surrounding the business.

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# CHAPTER ONE

# GENERAL INTRODUCTION

## 1.1 Background of the study

Micro and small businesses have been of great concern for both developed and especially developing countries due to its immense contribution to the growth of an economy. Its significance ranges from the expansion of the private sector, reducing unemployment rates by directly and indirectly employing individuals who were not absorbed by both government institutions and large firms and they contribute their quota to GDP of a nation.

The growth of SMEs has been a priority area for most governments hence the initiatives to support their growth (Feeney and Riding, 1997; Carsamer, 2009). SMEs contributions do differ from one country to another and between regions. Nonetheless, they play important roles in developed countries as well as low-income countries, making major impact on GDP and employment (Dalberg, 2011). They contribute to innovation in economies by collaborating with huge cooperate institutions. Moreover, in most emerging economics countries in Africa including Ghana, small and medium enterprises constitute more than 90% of private sector businesses and employs over 50% of the youth who are unemployed and make a tremendous contribution toward Gross Domestic
Products (UNIDO, 1999).

The government of Ghana’s unwavering attention has been devoted to micro and small since the inaction of the Structural Adjustment Program (SAP) in 1983 (Barwa, 1995) and the subsequent trade liberalization policies. More specifically, SMEs have been known to foster, sustain and expand investment, inspire economic growth and curb poverty. Statistics in Ghana shows micro, small and medium businesses play a prominent task in the production sector and employ about 85% of manufacturing industry of Ghana

(Aryeetey, 2001). According to Abor and Quartey, (2010), Small Medium Enterprises (SME) contributes about 70% of Gross Domestic Product (GDP) and forms about 92% of businesses in Ghana.

Micro Small and Medium Enterprises (MSMEs) forms over 95% business organizations and up to 99% enterprises depending on the nation. They are capable of creating about 60-70% net jobs in an economy such as OECD countries. MSMEs are responsible for importing new technologies and deploy them to produce goods and services (OECD, 2006). Micro, Small and Medium Enterprises tern to explore untapped areas within the economy develop them into a productive area which goes a long way to augment productivity Ghana (Aryeetey, 2001). MSMEs are therefore seen at the center of the economy, fuelling growth, creating employment and reducing the poverty level in most Sub-Sahara countries in Africa.

In spite of these socioeconomic benefits developing countries enjoy from SMEs, the sector or industry is bedeviled by the issue of succession and replacing existing ownerentrepreneurs in Ghana. Replacing an existing owner of a business has presented a lot of challenge to small and medium enterprises and has been attributed to diverse reasons. Distinct from large organizations, where ownership, control, succession and continuity and separated and distributed among a collection of people, the small and medium enterprises invests all those attributes in one person or a family. For instance Microsoft may seem to be a big giant company today but they all started off as a MSMEs and its dream was carried by a young student who received help from a couple of friends and family members. Bill Gate only went to the open market when they developed a saleable product and sought for investment through traditional sources. It must however be stated that not all SMEs eventually develop into multinational corporations but they are all faced with the same challenge in their early stages and that is source of funding to build up their business and test their product. A family firm in the MSME can compete in the global market when it is innovative in product and process that will reflect on the firm's performance

The increased globalization process require firms to be innovative in their operation to stay up to competition both domestic and international market. The rapid technological changes in the global market coupled with intense competition has forced firms both large and small to be innovate as this contribute in adding value to products and services that already exist in the market. Hence, innovation represent an essential constituent of a firms core plan for various reason which includes a more dynamic production processes, execute better in the market, search for good customer reputation so as to maintain a competitive advantage. According to Gunday et al 2011, entering into a new market, expanding an existing market and providing a competitive edge through innovation is a key instrument to the growth strategies of a firm. In the global world of highly competitive business environment, a firm needs to be ahead of its rivals and create competitive advantages ensuring that innovation is an important strategy.

### 1.2 Problem Statement

Over the past decades Micro, Small and Medium Scale Enterprises (SME) has contributed immensely to the growth of GDP in Ghana hence guarantee employment, stable income and growth. The Government of Ghana through economic restructure programmes introduced policies that improved on their trade agreement that has resulted in the competitiveness of micro and small enterprises both in the global markets.

Subsequently, countries such Asia, Latin America and Africa being in the emerging economies have embarked on changing their business environments through improvement on product/services innovativeness. In addition, African economies through economic liberalization have implemented policies which include sale of stateowned enterprise to private and public companies, remove barriers to foreign trade such as controls on import and restrictions foreign exchange, price controls removed and support local production and other reforms in the banking sector (Debrah, 2002).

Literature on strategic management stress the value of the design and implementation of viable business strategies that will help firm maintain and foster competitiveness across the global business environment in both transitional and emerging countries (e.g., Anand et al, 2006; Hoskisson et al, 2000; Khanna and Palepu, 2006; Kim and Lim, 1988; Meyer and Tran, 2006). A successful response to economic liberation stressed local firms take on plans that include plans such as the change in strategic viewpoint, the scope of business, corporate governance, management teams and operational plans.

According to Acquaah et al (2008), economic liberalization has opened emerging countries to both local as well as global competition in a unique way. Local businesses that were shielded by the government from domestic and the global market competitiveness now experience major transformation in their business setting, as well as a significant challenges in the competition with reputable and international giant organisation, hence the need for micro and small firms to be innovative to survive in their competitive industry.

Despite overabundance studies, the primary focus was on the advanced countries which examine the relationship between companies' strategies where on competitive direction and organizational outcomes, with little study on developing countries (Campbell-Hunt, 2000). Research study on competitive strategy of firms' outside the developed countries have concentrated their effort on emerging countries in Europe, Asia, and Latin America

(Aulakh, Kotabe and Teegen, 2000). Others examined innovativeness and family firm performance focused on specific resource affecting performance in the developed economies (Hatak et al 2015).

Over the last years, researchers have drifted attention to innovation which has been a focus and demanding area to examine by defining, categorizing and investigating its impacts on performance, as a result of their importance. Firms' overcome their challenges in sustaining their competitive advantage through innovations (Drucker, 1985; Hitt et al, 2001; Kuratko et al, 2005). Acquaah et al (2008) study was on competitive strategy, characteristics of the environment and performance in Africa emerging economies with firms in Ghana. This study will contributes to the underdeveloped research on innovativeness of small family firms on performance, the moderating role of external characteristics in the developing countries in the world especially Ghana.

### 1.3 General Objectives

The general objective of the study is the impact of firm innovativeness on performance of micro and small family businesses in Ghana; the moderating role of external characteristics.

#### 1.3.1 Specific objectives

1. To examine the effects of innovativeness on the performance of micro and small family businesses
2. To examine the effects of external characteristics on the performance of micro and small family businesses
3. To examine the moderating effect of the relationship between external characteristics and innovativeness on the performance of small family businesses

### 1.4 Research questions

1. What effect does innovation has on performance of micro and small family businesses?
2. What effect do business external characteristics have on the performance of micro and small family firms?
3. What moderating effects does the relationship between external characteristics and innovativeness have on performance of micro and small family businesses?

### 1.5 Justification of the study

The importance of this study is judged on its theoretical and practical implications. Findings of this study has to be an eye opener to owners and movers of micro and small family businesses on the need for thorough consideration of innovation on performance and external environmental features contribution towards being competitive in the industry of operation. Again, the study shall contribute to the existing body of knowledge on micro and small family businesses in Ghana and globally.

### 1.6 Scope of the study

The scope of the study is restricted to the micro and small family businesses in the Ashanti Region of Ghana. It would have been interesting to cover the entire country with this study and relate it to the diverse traditions and cultural background. However the study was limited to some selected micro and small family businesses within the Kumasi metropolis of the Ashanti Region of Ghana to enable a detailed and comprehensive study. The scope of literature covered literature on firm's innovativeness, external characteristic and performance of micro and small family businesses. The study area is informed by information accessibility and proximity to micro and small family businesses and the fact that the researcher is fluent in the indigenous language of the target group.

## 1.7 Limitations of the study

Due to time and financial resource constrain, the study sampled family firms' leaving in Ashanti region only. In effect the outcome of this study may sound bias to generalize across all family businesses (micro and small) in Ghana. The reason being that, tradition and cultural differences and believes may account for a significant variations in how family firms in Ashanti are being managed contrary to family firms in other regions of the nation.

## 1.8 Methodology

Structured questionnaires' were used to collect primary data and analyzed for the study. In all, 200 Small Family Businesses (SFBs) found in various activities with a maximum of 10 employees partook the study through Purposive-Random sampling approach. Data collected were expressed quantitatively to enable comparative and statistical inferences using Statistical Package for Social Sciences (SPSS) and Microsoft Excel program. ANOVA and regression analyses were then performed in analyzing the perceived moderating effects of the firms' innovation and external characteristics on the firms' performances and the other relevant focus of the research.

## 1.9 Organization of the study

This study is grouped into five chapters. Chapter one describes the background of the study and other relevant sub-themes shown above. Chapter two reviews related literatures for the study and formulate both conceptual and theoretical frameworks.

Methodology is capture in chapter three as the forth chapter analyses and discusses the study results. Chapter five summarizes and concludes the entire study to permit some necessary recommendations from the author.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter review significant literature to develop a framework for research and hypotheses to address the research questions posed in Chapter One. Specifically, the following are provided: Definitions of micro and small family businesses, characteristics of small family business definition from the Ghanaian Perspective, View of Innovation and External business analysis. The literature review is culminated with relationship between innovativeness, external business characteristics, and performance.

## 2.1 Innovation

A firm can competitively survive the global market when it is innovate and this is broadly seen as an important tool, which must be incorporated in the structure, process, product, and service of a business (Gunday et al, 2011). The current global development stresses the significance of the firm capability to develop and launch product innovations (Greve, 2003; Camps and Marques, 2014). Nonetheless, firms must go beyond their ability of developing a product to including taking advantage of new business opportunities and interpret innovation to enhanced firm performance (Rosenbusch et al, 2011; Tsai et al, 2013; Wiklund and Shepherd, 2003)

There have been various definitions on innovation from different researchers. Literally innovation immerges from the Latin word innovare, which means to produce a new thing (Tidd et al, 2001). According to Damanpour (1991) innovation is seen as generate, develop and implement new ideas such as a new products and/or services, a new production processes, a new structures and/or administration systems, or a new program which pertains to firm's members. Research by Dunn (1996) stated that innovation is to adopt an idea or behavior, which may include systems, policies and programs, device, processes, products or services, that is new to the small and medium enterprises that are often family business in many countries. Family businesses can compete and survive in an economy and globally when they are innovative. Smaller businesses show

innovativeness and aggressiveness in their market industries as a result of their size, their superior knowledge of their domestic market coupled with their financial independence as compares to bigger corporations.

In addition, innovation is seen as the key instrument to firms' growth strategies which includes entry to a new market, existing market expansion and providing competitive advantage in the industries they operate. Organisational innovativeness according to Lumpkin et al, (1996) is broadly defined as a the tendency of a firm to employ and support new ideas, novel, experiment, and create process that will lead to a new products and new business processes (Camps et al, 2014; Gopalakrishnan et al, 1997; Salavou et al, 2008), which will create a competitive edge for the firm to survive globally.

Previous studies by researchers indicate an optimistic connection to a firms' innovativeness and the consequent result in its performance (Bowen et al. 2010; Rosenbusch et al. 2011; Rubera et al 2012). Accordingly Chirico et al (2010) and De Massis et al (2013) were of the view that the result of innovativeness on family firm performance is vague. Present literature has encouraged active debate on whether this distinctive organizational perspective of family businesses foster or hinder firms' innovativeness and hence translate into enhanced performance (Habbershon and Pistrui, 2002; Memili et al 2014).

Rogers (1998) version of innovation was applying new ideas to products, processing and other function of a firms' operations. Drucker (2002) indicated that innovation forms part of an entrepreneur's specific function that is an entrepreneur will either make new wealth producing resources or provide present resources with superiority to create wealth. Davis et al (2008) emphasize that a firm's innovativeness differ in complex and can vary from small alteration to a product, processing, or service to exceptionally enhance product, processing or service that increase a firms' performance. The various definitions by researchers highlights the newness and or improvements in a product, service or processes from firms' that practice innovation as it is a tool for effective competition and survival in the global market. The word new or improved however could be subjective in the context of innovation that is a term new in on firm may not necessarily be new to a competitor within the same industry and this could cause a degree of complexity relating to the term innovation. There are theory definitions to innovation the technical definition helps us to appreciate how different firm explain innovation concept for their policy making and organizational purpose.

The Organisation for Economic Co-operation and Development (OECD) put forward a definition for innovation which is extensively apply to measure and/or interpret the innovation initiations, mainly in the OECD countries. Accordingly, OECD (2005) defines innovation as implementing new or major product (good or service) improvement, processing, a new market technique, or a new organisational system, workplace organisation or external relations. The organisation recognized four innovation types namely products, processes, marketing and organisational.

### 2.1.1 Types of Innovation

According to Damanpour (1991) researchers argue the distinctive types of innovation are essential to understand firms' varying actions and to identify determinants of innovation. Schumpeter (1934) summarized five groups of innovation namely introduce new products or an improve on an existing products, introduce a new processes or an existing processes improvement, open a new market, new source of raw material and/or other inputs supply and changes in business organisation both inter organisational and intra organisational, which may be to create a control firm or a change in organizational structure.

In the context of change that was created through innovation, three (3) types of innovation was identified by Tidd et al (2001) which includes transformational, radical and incremental changes. Transformational innovation occurs when the firm performs primarily different thing, leading to a revolutionary change in technology or processes that is new to the firm. Radical innovation change has to do with changes customers and suppliers' relationship, restructure marketplace economics, current products displacing and to create entirely new product categories (Salomo, Gemunden and Leifer 2007). Finally, incremental innovation change involves a process where a set of technologies are applied in new ways which results in improved processes or the use of when finest system technologies are used in more innovative ways, that bring enhances products or services by pay attention to the customers. Schumpeter's viewed radical innovation as a main disruptive change, whilst incremental innovation is a continuous progress the process of change.

Tidd et al (2001) developed a matrix of change which was in two forms: the first look at the product (goods or services) that a firm offer and secondly the change in the way in which the products are created and delivered (the process). There are numerous typologies to innovations advance in literature (Damanpour 1991), but three (3) have gained most audience which includes the administration and technical, product and process and radical and incremental. This research will focus on three types of innovation which include; i) product innovation, ii) technical innovation iii) customer service innovation.

#### 2.1.1.1 Product innovation

According to Amara and Landry (2005), the definition of product innovation is to create a new product from new raw material to form an entirely new product or the modification of existing product to meet customer demand (being an improve product). Product innovation could be described as new developed product in those actions that are carried out to ensure that the core product are conveyed and is it more attractive to consumers/customers. This type of innovation makes use of new technologies or knowledge and combines existing technologies or knowledge to produce a new or improve product that meet customer satisfaction. These include major improvement in technical specification, component and material, built-in software, user friendliness or other functional characteristics (OECD, 2005).

Firm's can compete effectively and cope with competitive pressures, changes in customer taste and preferences, changes in technology to meet varying demand pattern, short product life cycle and focused more on customer requirements through product innovations. Hence product innovativeness is the output of an organisation.

#### 2.1.1.2 Technological innovation

Kemeny (2010) defined technology as rule and idea that direct the way good and service are produced. This means that technological or technical innovation is linked to the producing a good and/or service by applying new or improved technological methods. This involves a scientific doctrine that is quite different from existing products, services or processes and this can be achieved through technological breakthrough (Chandy and Tellis, 1998).

Technological innovation contribute to higher and improved levels of economic output and this can lead to a change in human lives and competences through the delivery of new products and services (Naudé and Szirmai, 2013). In addition, growth and changes in inevitable hence it relation to the nature of innovation. Tang and Hussler (2011) consider the latecomers approach to technological edge and its strategies have to drift from replication to innovation. These technological innovations have given opportunities for firms' to come out from state of art advancement, following generation of technology to new technology. This has resulted in major technical changes, equipment and software.

#### 2.1.1.3 Customer Service Innovation

According to Matthyssens et al (2006), firms can compete in the global markets through the use of resources to offer service that improves the worth of their product or service and this leads to competitive advantages. Due to high competition in the global market firms are transiting from product orient towards a more service orient which represent a focal change the customer from purely business relationships (Oliva and Kallenberg, 2003; Brax, 2005; Neu and Brown, 2008). Hence major firms have develop their customer service offering such as training or after-sales service, offer service that support the customer (SSC), particularly, customer process that relate to the product (Mathieu, 2001). For instance, a service may include a takeover of customer repairs function or management of spare-parts and/or provide guidance to improve customer operating process (Gebauer and Fleisch, 2007).

Firms that are product focused turn to be incomplete as they are transaction based customer relationship but those who go beyond the product to customer services move to a totally offer relational based customer relationship (Penttinen and Palmer, 2007).

Consequently, industries in manufacturing sector are developing their customer services offering as part structuring the organization and strive increase service orient hence customer service innovation has become more central.

### 2.1.2 Innovativeness and firm performance

Firms' performance is of importance to business owners or managers. The general performance depends on strategic fit of firm characteristics and objectives. Research works put forward innovation as one potential device through which competing firms' obtain advantage in the global market with resources that are unique to the organizational (Barney, 1991; Damanpour and Evan, 1984). The outcome of innovation is likely to result in change in organisation that can influence a firm performance (Rothwell, 1992). Most studies support the case that successful innovation is a tool for the performance of a firm (Baker and Sinkula, 1999; Calantone et al, 2002; Craig and Dibrell, 2006; Damanpour and Evan, 1984). Hence innovation offers an organisation to meet the needs of its customers' that subsequently leads to sales growth and consequently improve firm performance. However, past research studied was on the direct linkage between organisational learning and performance of a firm and also innovation and firms' performance, none has empirically tested the consequence of innovativeness of market dynamism and firm performance. Research work done by Teece et al (1997) paints that innovation is capable of being a guide to the core capabilities development that can enhance organisational performance. Thus, it was proposed that firms' innovativeness to a degree influence the connection between the dynamics of the market and performance of a firm.

## 2.2 Defining Family Firms

It is recognizes firms differ in the terms of ownership that is family or non-family (Daily et al 1993; Sharma et al, 1997), there have not been a common accord in literature on the actual definition of a family business or firm. Danny Klinefelter a professor of Agriculture economics term a family firm where members of the family have controlling interest and occupy the leadership position. Other researcher works have therefore used various modes to define what a family firms' means (Martos, 2007; Wortman, 1994). Robert and Brockhaus (1994) defined a family firms' is one where one member is affected by the decisions of the business. Daily and Dollinger (1993) also suggested that it could be determine by the size of the firm family, taking into consideration it's identical to a small firms.

The search to family businesses' background proves that these firms span from a tiny place shop to global family controlled businesses (Birley, Dennis and Godfrey, 1999). Nonetheless, majority of family businesses are categorized into small or medium size firms (SMEs) (Voordeckers, Van Gils and Heuvel, 2007). Identifying the multiplicity of family businesses, Handler (1989) pointed the significance of focusing on the array of family firms' pattern in an attempt to defining what a family firm stands for.

Litz (1995) research recognized two approaches to the definition a firm that is family owned. The first is a structured based approach that is based on relatedness and the second been an intentioned based approach. A family ownership and management is seen as the structure based approach whereas an intention based approach centered on value preference whether achieved and unachieved of the organization's management and members of the family. The deficiency with the structured based approach is its failure to value intra organisational preference toward family based relatedness. To integrate these approaches, it is projected that a business may be classified as a family firm to the degree to which ownership and management are centered within a family unit, and to the echelon that its members endeavor to achieve and maintain intra organisational family based relatedness.

Chrisman et al (2005) proposed the components of involvement and essence approaches that defined a family firm and this is a further expansion to the work of Litz. This component of involvement approach considers the involvement the family as the adequate conditions to the definition of a family business whereas the essence approaches propose a simple family involvement could not be considered as a family firm. The firm will be considered a family business where family involvement needs to aim towards actions that produce certain uniqueness. Researchers seem to adopt the definition of a family firm from the family involvement approaches than to the intention based and essence approaches (behaviourial approaches) which are easy to operate
(Chua, Chrisman and Sharma, 1999).

It is important to study family business using the behavioural-based approach and to know why and how these vary from other approaches. However these approaches are essential to researchers as it increases the in the family business field. To address the debate on the definition, Shanker et al (1996) propose that family firm belongs to the continuous series rather than belonging to a two opposed category. Hence it has been suggested that family firm businesses should be classified base on their level of participation of the family either direct little or to a large extent and these levels was used to classify family firm definitions as broad, middle and narrow.

The broad group defines family business as a business with little direct involvement of the family, where there is some level of effective control over strategic decision with the intent to remain in the family. Hence the family is not involve daily activities of the firm but can influence decision of the firm as a result of their membership at the board of directors or stockholders level. The middle group defines family business as some level of family involvement where family members are directly involve in the daily activities and operations and this requires key family member to run the business. This means family members take effective control over strategic decisions as well as its implementation. Finally, the narrow group defines family firm as one with high degree of family involvement in relation to the control of strategic decisions, run daily activities/operations, multiple generation of the firm and with more than a family member involvement that have a significant management responsibility (Shanker and Astrachan, 1996). These family members who are managers have the power and
authority to follow what they recognise as the best choice (Gedajlovic et al, 2004).

A close consideration to the definition of a family firm had to deal with the level of risk taking is less significant in a family firm than a non family business. Family firms are usually differentiated by fewer monitoring both within and outside the firm, risk taking decision of family business will probably be of calculated in nature to reduce the risk burden to the family, less grounded in a orderly, impartial way; and with less incorporation of external perception and viewpoint (Schulze et al 2001 and 2003).

**2.2.1Characteristics of family business**

Family businesses are often distinctive compared to other businesses with regard to their resources and capabilities. These exceptional characteristics are created by the relations of the family and the firm, which is noted as familiness of the firm by research study of Habbershon and Williams (1999). These characteristics can create both favourable and unfavourable (Sirmon and Hitt, 2003).

The size of a business is the first characteristic of family business. A study conducted by Walch and Merante (2007) was to settle on what the suitable staff size for the business to be resilient and to prosper. Researchers view resilience as the business capability to survive any business disruption and be able to carry on or return to productivity within satisfactory period of time. A quantitative model was developed that requires the firm to know employee number needed uphold efficiency and resiliency as this was an fair measure to which a company can determine the employees required.

Secondly, family business is characterized as a home based business. This is the ability of members to support each other through this business establishment and they consider such owners and managers as been successful. Soldressen et al (1998) in a survey on home based business used Ordinary Least Square (OLS) regression analysis investigate the certainty of demographic and practices of business variables on the performance of such businesses. The study conclude that majority of the report from the research survey indicate that most successful business are home based family owned business where the owners measure their success on the notion that they enjoy what they worked for and not necessary of profit motive. This means they work on something they enjoy doing best. It further stated that home based family owned firms continue to increase in number and this need to be studied to a greater degree so as to comprehend their rapid growth and then realign it in a sub group of a family owned businesses.

Further to the above family business are known to be co-ownership. Co-ownership type of family firm occurs where there is no distinction the work and family. Family members involved are glued together through emotional, social, economic, and legal relationships and where there is conflict this could affect their relationship. Authority to make decision is vested in the hands of the founder or successor who takes decision base on the authority and also ownership of the firm and this authority is enjoyed base on generation from the older to the new generation as this is not the same among each other.

Another characteristic is also their business problems: Ward (1997) explored the grounds for and the speculation that surrounds the reasons why most family firms and businesses perform or develop. Ward clarified the popular insight that the most of family firms do not perform but just stay dormant. The research therefore propose a set of best practice for family business that can lead a such firm from slow growth towards a better business performance and increase profit. The research of Ward highlighted the challenges confronted by family businesses which hinder their development and growth. These include intense competition, changes in technology, lack of capital coupled with family growth and their lifestyle expectation increase, distinct family objective and goals, and that next generation members of the family are deprived of their inherited security and wealth. In conclusion, Ward recommended a number of best business practices that will lead to increased success. These best business practices are to accept current strategic insights, attract and retain outstanding managers outside the family, create an innovative organization, create and preserve capital and assets and prepare future leadership (heirs) within the family business.

Final characteristic is their business finances. Filbeck and Lee (2000) explored business financial management and it carried out a survey on family business in an effort to appreciate the degree to which these firms used techniques such as risk adjustment, capital budgeting and working capital management. The working capital management techniques is a technique that is use to manage the day to day operational cash needed for the running of a business. The survey indicated that family business uses less updated financial management system than their non family business in their operations. Also, family businesses that have control or influence of outsiders (partly owned by family businesses) on the board of directors practice capital budget techniques to manage their finances whilst wholly family owned business practice just a little of this technique. Finally, partly owned family businesses that have less family influence are risk takers that explore their risk appetite using risk-adjustment techniques to reduce, accept or eliminate their risk than wholly owned family businesses.

**2.3 Firms External Characteristics**

The business environment is characterized by both internal and external forces of a firm. The internal factors that form the internal characteristics are those that the firm have control over. These include the size, structure and characteristics of members who form part of the organization (Hurley and Hult, 1998) which pertains to the cultural behaviour of employees.

The external factors are those forces that affect the firm either separately or collectively as an industry and such includes the customer, supplier, firm competitiveness, social, political and legal. These environmental forces could be interrelated or dynamic in nature and are uncertain as it keeps on changing. These factors are firms' specific factors that could be complex or have moderate effect on the industry. These specific factors are; macro-economic stability such inflation and monetary controls, production cost and borrowing cost in an economy, macro-economic policies and regulations such as tax policies, business registration procedures, pricing on inputs mechanisms, trade agreements, presence of enabling infrastructure such as reliable energy and water sources, roads, communication networks and other infrastructure needed for the firm to operate successfully (Reinikka and Svensson, 2001). These factors, the firms have little control over.

External factors generally affect certainty of the environment in which the firm operate. Business decisions are crucially affected by this environment (Aldaba, 2008). Uncertainty in an economy increases risk and given the occurrence of long-term capital accumulation in most developing economies in Africa, large corporations, foreign investors and small businesses depend on the government ability to execute sound and constant macro-economic policies for business to thrive (Bigsten et al, 1999). According to World Bank Invest Report(2004) indicate that businesses can make sound business decision when budget deficit and inflation are low and there is stability and clear currency administration, yield of competitive exchange rates in an economy and this helps ensure there is stability to businesses. A survey conducted by Shiffer and Weder (2001) shows that inflation and exchange rates affect SME growth more than larger enterprises as a result of lower opportunities in hedging that is made available to smaller businesses.

Studies in some part of Asia and Eastern Europe on small businesses have constantly emphasize the same major restraint that affect growth which include access to financing, rapid technological change, and skills in addition to gaps in information and complexity to the quality of product and marketing (FINEX and ACERD, 2006; Tecson, 2004; Fukumoto, 2004). From their studies it clearly shows that accessing finance is the limitation of small business expansion and a key determinant of the willingness to invest.

These external factors form the external characteristics and are summarized as the power of competition and networking, and the extent of change in the business environment that have effect on the demand and supply and price of a firms product. These could be categorized into market dynamism and industry sector.

### 2.4.1Market Dynamism

According to researchers, market is said to be active when it is characterized by a high rates of entry and exist. Others also look at the effect of changing pricing that affect demand and supply of a product that leads to a firms profitability hence survival.

According to Audretsch et al (2001) the difference connecting static and dynamic market largely the level of competition. The differentiation stems from market competition which is price drives competition (static markets) and the market innovation through product and technological plays a more important role (dynamic markets). Burke et al (2006) indicate that competition policy is needed to prevent an excessive market power and its abuse by few players and this Caves (1998) added the rationale behind competitive policy as a high market power or high rate of concentration. This is unfavorable not only to consumers' interests but also to the performance of other competing firms within the industry.

Another instrument to competition in the market is being innovation and this is a counter-attack strategy to harsh competition (Umidjon et al, 2014). For a firm to survive and grow in a competitive market it needs to come out with something unique that distinct its product or services from others. The intense market competition in an industry determines the need for a firm to be innovative (Schumpeter, 1942; Ahn, 2002). Radas (2009) indicated that the survival on a competitive market requires innovations happen. There are several theoretical cases which clarify behaviour of competition in terms of innovation. The

Darwinian effect theory considers intensity on product that is the product market competition which became the focus of most managers in through the adoption of new technology. Another theory looks at the close competition effect where competition is between firms with equal technology that affect firm's inducement to increase its technological lead over its competitors. Keen competition positively affects firm's preference to carry out research and development which is the key innovation activity (Kumar, 1996). Gabsi (2008) examined innovation and its implication on companies and the increase market concentration of firms in Tunisian. A firm with a better strategy in a competitive market can compete effectively in comparison with other firms within the industry and hence expected to adopt low cost method of innovation than a monopoly (Sunku, 2010). Lean markets tend to suppress innovation whereas active marketplace with multiple buyers and sellers conditions private innovations thrive
(PwC, 2010).

## 2.4 Conceptual Framework and Hypothesis Development

### 2.4.1 Relationship between small family business innovativeness and performance in Ghana.

Research studies on family businesses argued that firms go beyond the family and a firm (Habbershon et al, 2003) to acquire a distinctive characteristic that is capable to provide competitive advantages advantage (Memili et al, 2013) over firms within the industry to survive. According to Habbershon and Williams (1999), to assess the unique nature of a family businesses and their link to a marketplace benefit require researcher to recognize the firm's precise strategies, resources, and skills.

A firm's innovativeness defined on Lumpkin and Dess (1996) as the tendency of a firm to employ and support newness in idea, originate, experiment and create process in which the outcome will be the commencement of new products through product innovation (Camps and Marques, 2014; Gopalakrishnan and Damanpour, 1997; Salavou and Avlonitis, 2008), implement new business model through organisational innovativeness (Lumpkin and Dess, 1996; Gopalakrishnan and Damanpour, 1997), and processes innovation (Garcia and Calantone, 2002; Frank et al., 2010). Previous research work shows that there exist a positive linkage between firm's innovativeness and consequent performance (Bowen et al, 2010; Rosenbusch et al, 2011; Rubera and Kirca, 2012), there is an unclear consequence of innovations on the performance of a family firm (Chirico and Nordqvist, 2010; De Massis et al, 2013).

Family firms are frequently condemned for accepting approaches that are not conducive to innovativeness as they want to maintain the firm's stability (Vago, 2004) and are reluctant to take risk (Morris, 1998; Chen and Hsu, 2009). However, current research offer a more versatile view of family businesses that recognizes need to develop and launch new products that constitutes a necessary condition for family-firm succession (Carnes and Ireland, 2013; Kellermanns et al, 2012). Prior studies were of the view that family firms possess uniqueness that promotes innovativeness (Craig and Dibrell, 2006; Özsomer et al, 1997) which may be due the flexibility of structures and decision making process and are less prone to formalized monitoring and control procedures found in a publicly owned organisation (Daily and Dollinger, 1992; Geeraerts, 1984; Zahra et al, 2008).

In addition, to foster innovativeness should be of strategic interest to the family business, thereby given that the firm has a strategic prospect that can extent to generation to come (Sharma and Irving, 2005; Ward, 1988; Zellweger, 2007). Also family firm should not concentrate on the present performance but the returns in the foreseeable future. Family firms that have greater influence on its innovativeness can create competitive performance in the foreseeable future (Craig and Dibrell, 2006) although this could not be achieve in the short term. Current research work analyse their study to the innovativeness to the family firm's ability to develop and launch new product or the improvement of existing products as a result of work by Damanpour (1991) and Naldi et al (2007) in his a meta-analysis that performance of a firm is mostly associated to product innovation rather than the other forms of innovation.

In this study, innovation is examined under three strands: customer services innovation, products innovation and technological innovation. Research indicates that there is a positive impact of innovation on business performance; based on this premise it can be hypotheses in this study that

*H1a: Product innovation has positive relationship with performance of small and micro family firms*

*H1b: Customer service innovation has positive effect on performance of small and micro family firms*

*H1c: Technological innovation has positive effect on performance of small and micro family firms*

### 2.4.2Relationship between market dynamism and performance of small family business in Ghana

In the past decade, firms have increasingly expanded across the globe resulting in fierce competition among player in the industry. Trade liberalization has resulted in the reduction of trade barriers, increase improvement in technology and low costs for communication and effective transport system have enable firms to compete international. The variations of source of performance among firm have been rooted in the intensity of the industry forces and the firm's uniqueness. The industry forces by Porter (1980) included buyers (consumer and/or customer), suppliers, new entrants, substitutes, and competitors. Porter further argues that a firm's success performance could be attributable to its strengths and weaknesses within the industry forces it operates. Advocates of the industrial organisation view suggest that industry forces are very important for a firm to develop and constrain business strategies which generate and reflect the executive insight to industry forces (Matsuno and Mentzer, 2000). O'Cass and Julian (2003) and Zahra (1987) both indicated that a firm that adopts different strategies tends to view their environment differently. Indeed, firms who recognize the dynamism within their industry forces turns to be more proactive and innovative (Miles and Snow, 1978), hence strategies of firms are expected to differ in view of their complex industry forces (Zahra, 1987).

The performance of a firm could be hindered as a result of environmental characteristics which play a key role in achieving desired results the degree of market orientation and this is vital to the development of strategic orientations (Kotler, 1977; Porter, 1979). Porter stressed the need for stronger relationship between environment analysis, planning, and control that leads to effective marketing. The findings, makes it very important to that enforcement of competition which include market regulation is necessary to effectively market goods and services in a well functioning of the economy. In addition competition is seen as a vital tool that can influence productivity through innovation. Authors have recognized that there is a relationship between innovation that increases dynamic efficiency through technological improvements in the production processes or create new products. Finally, de-regulation or trade liberalization such as reduced trade barriers, barriers to entry and increase in consumer competition of a product market can influence performance of a firm. To sum up, external characteristics can have a significant relation on performance.

***H2: For firms with high levels of innovativeness there is a significant relationship between market dynamism and performance of small family business.***

## 2.5 Moderating role of innovativeness in the relationship between external characteristics and performance of small family business in Ghana

External characteristics have great impact on firm's performance but these might improve or hinder the innovation. In order to understand the relationship between external characteristics and performance, it must consider an important aspect of the context in which situation market competition and industry sector are applied. Specifically, the impact of firm external characteristics on performance depends on firms' innovativeness.

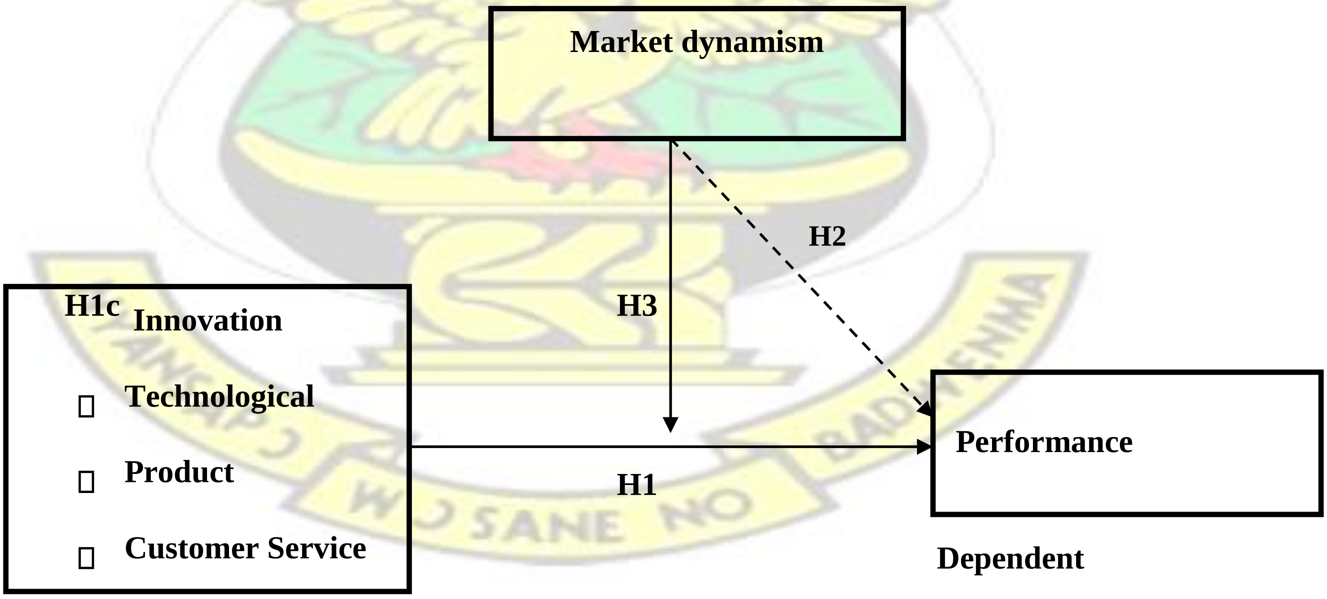
A study by Zahra (2005) highlighted, on the need embed innovation oriented culture in which the present generations are involved in the management of family. Creativity is most important in an innovation oriented culture (Hurley and Hult, 1998), and this corresponds to a positive control on the family firm's ability to innovative. Many researchers in strategic management have researched on the connection between the competitive strategic response of firm's circumstances in its environment and changes that has occurred. Hence, the consequence of strategic actions on business performance is dependent on the environment. The primary basis to obtain an above average profit in the long run is to maintain a sustainable competitive advantage over the industry. Thus the nature of business environment can affect the impact innovativeness contrive on business performance. Literature show that family firms in Ghana operate in harsh and competitive environment. This may motivate the business to adopt an aggressive approach towards the firm. Research has indicated that family businesses are likely to be less aggressive and focus on less risky ventures which may negatively affects their performance. However under increased competitive intensity and more dynamic markets, the family will become more innovative and this may enhance their performance in the long run. Based on this the study hypothesizes that

***H3a: Market dynamism moderates the relationship between product innovation and firm performance***

***H3b: Market dynamism moderates the relationship between customer service innovation and firm performance.***

***H3c: Market dynamism moderates the relationship between technological innovation and firm performance.***

**Figure 1: Conceptualizing the Effect of firm innovativeness and external characteristics on Performance**




**Variable (DA)**

**Independent Variables (IV)**

**Source: Author's Construct, 2016**

This study is built on the grounds that innovativeness and external characteristics has influence on micro and small family business performances. However, external characteristics do not just happen. It depends on market dynamisms and industry sector. Moreover, innovativeness also required adoption of state – of the acts methods of doing modern business such as e-commerce and adoption of information and communication technology as a whole. It is believed that effective implementation of all the above will lead to higher business performance. From the on-going the following hypotheses are deduced.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter outlines the design and methodology of the research. This includes the study design, population, sample selection and size, data collection and data analysis strategies. Finally, it presents information on the profile of the study area and with consideration to ethical issues that were observed during the study.

## 3.2 Research Designs

Research design is a plan or a framework that guides the study. A survey is use in the research design which enables the researcher to employ fewer groups of people to make inferences about larger groups which was prohibitively expensive to study (Holton and Burnett, 1997). This study had adopted quantitative research design since it intends to test number of hypotheses using statistics. The quantitative research was explained in the next sub- section.

### 3.2.1 Quantitative approach

The purpose of the quantitative research design is to assess the external characteristics, firm innovativeness and small family business performance in the Ashanti region of Ghana. The study applied a survey design with a questionnaire (which is structured self administered) and structured record reviews. The study also deployed statistical tools such as regression, correlation, frequencies, percentages and chi-squares to estimate the impact of external characteristics, firm innovativeness on performance of small family business.

### 3.3 Population

A population is defined as a group of people or objects that forms the theme of study. It consists of all elements or individuals, items or objects whose characteristics are being studied (Saunders et al, 2007). The study examined the influence of external characteristics, firm innovativeness and performance of small family businesses in the Kumasi Metropolis of the Ashanti region of Ghana. Target population of the study includes all registered small businesses in the metropolis within the last two years. The specific population includes; Manufacturing, Hotel/Guest house and catering services, craft works, carpentry and furniture making and afro-businesses. The respondents were the managers of the various businesses.

#### 3.3.1 Sample Size and Sampling Techniques

This section considers the sample size and sampling technique of the project report. The population targeted for the study was too large for the researcher to survey all hence a small and carefully chosen sample was used to represent the population. The sample reflects the characteristics of the population from which it is drawn.

Quota to each division was determined by using the formula;

$$Quota = \frac{Category \times Sample\ Size}{Sample\ frame}$$

This equation was used to generate the table 3.1 below.

**Table 3.1 Sampling Size estimation**

| CATEGORY OF BUSINESSES | TOTAL POPULATION | SAMPLE SIZE | SAMPLING TECHHIQUE |
|---|---|---|---|
| Manufacturing | $\frac{40 \times 100}{200}$ | 20 | Purposive |
| Hotel/Guest house and catering services | $\frac{39 \times 100}{200}$ | 20 | Purposive |
| Craft works | $\frac{38 \times 100}{200}$ | 19 | Purposive |
| Carpentry and furniture making | $\frac{48 \times 100}{200}$ | 24 | Purposive |
| Afro-business | $\frac{35 \times 100}{200}$ | 17 | Purposive |
| Total | 200 | 100 | |

**Source: Author's Contract, 2016**

After carefully calculating the quota for each sub sector the purposive sampling technique was then used to select units from each sub sector to put a total sample that represents all industries. A purposive sampling defines a form of non-probability sampling in which the decision concerning the individuals was included in the sample taken by the researcher and was based on a selection of criteria which include specialist knowledge of the research issue, or capacity and willingness to participate in the research. Some types of research design necessitate researchers taking a decision about the individual participating in the research would be most likely to contribute appropriate data, both in terms of relevance and depth.

### 3.4 Sources of Data

Primary and secondary data were used in this thesis. Data collected at the first hand from responses is known as primary data and was the main tool used in data collection. The primary data is questionnaires and secondary data is the collection of an accessible data. Secondary data for this research work were collected from literature (journals, articles, books, magazines, etc.) database and the internet. The firms' operational manual and policy documents were also studied for some information. Data was sourced from books from libraries, publication and online and this formed the considerable part of the literature review.

### 3.5 Data Collection Instruments

The nature of the research topic requires the use of questionnaire as the main and appropriate tool to gather date. This is because questionnaire has been identified as economical way of gathering data from large number of respondents at a relatively cheaper cost. Thoughts were given to the words of individual questions and this ensures that questions were objectively answered by respondents in the questionnaire.

The questionnaires have five sections. Section A; dealt with the background information of the respondents. Section B; examined the effects on innovativeness of the performance of small family business. Section C; dealt with the effects of external characteristics on small family business performance. Section D; assessed the performance of small family business. All the questions were closed or forced choiceformat. Respondents decided on a given option through the use of closed format as this format is quick and easy fill and also minimizes discrimination against the less educated as this is a self-administered questionnaire or the less articulate (in interview questionnaire). It was easy to code, record, and analyze results quantitatively and easy to report results. How each variable was operationalized was explained in the subsequent section.

### 3.5.1 Measurement of Variables

**Product Innovation (PI)**

Product innovation occurs when new products are created or an existing product is transformed with the aim of meeting customer needs. In this study product innovation was measured using five items: "we commit resources to research and development", "our company is the first to introduce new products or services to the market", "develop new products/services that enhance service to customers", "develop cutting edge service/products that are not delivered by competitors" and "promote new product offerings". The owners and/or managers were asked to rate their efforts in product innovation using a seven-point scale ranging from *(1) "strongly disagree" to (7) "strongly agree*". Degree of freedom (df) for confirmatory factor analysis models (Kenny, 2016);

$df = knowns - unknowns$

$knowns = \frac{k(k+1)}{2}, k = No. of\ items$

$unknowns = free\ loadings\ (FL)$

$error\ variance\ (EV)$

$correlated\ errors$

$factor\ variances$

$factor\ correlations$

The study is a single model hence free loadings and error variance were used. The degree of freedom for product innovation was measured using five (5) items (k=5)

$df = \frac{k(k+1)}{2} - \ (FL + EV)$

$df = \frac{5(5+1)}{2} - (5+5)$

$df = \frac{30}{2} - (10)$

$df = 15 - 10$

$df = 5$

The confirmatory factor analysis (CFA) was then conducted on the five items to see if the expected construct fits well [chi-square = 7.005, degrees of freedom = 5; p-value = 0.220; RMSEA = 0.048; CFI = 0.989]. Analysis indicates a good fit with the observed covariance matrix as shown in Table 4.3. The Cronbach's alpha obtained was 0.7586 which shows that the items used to capture product innovation was generally reliable and can therefore be used for further analysis. The statistically acceptable value was 0.65.

**Technological Innovation (TI)**

Technological innovation occurs when a new process or system is designed that is based on scientific principles that are substantially different from existing process. It could arise as a result of the company investing in R&D, partnering with research institutions or copying technologies from others. In this study, technological innovation was examined using six items including: "we try to reduce service failures and product defects", "we rely on information technology in pursuing innovation", "we adopt the latest technology in the industry", "we rely on new technology to stay ahead of competition", and "we invest in new and superior technology products". Again, the owners and/or managers were asked to rate their efforts in technological innovation using a seven-point scale ranging from *(1) "strongly disagree" to (7) "strongly agree*. The confirmatory factor analysis (CFA) was conducted on six items to see if the expected construct fits well [chi-square = 16.620, degrees of freedom = 9; p-value = 0.055; RMSEA = 0.069; CFI = 0.978]. Analysis indicates a good fit with the observed covariance matrix as shown in Table 4.3. The alpha value of 0.7748 also confirms the overall reliability of the items used to measure technological innovation.

**Customer Service Innovation (CSI)**

Customer service innovations are transformations in service offerings that enhance the value of their offerings and strengthen customer relations for competitive advantage. Customer service innovation in this study was then measured by eight items including "presenting clients with unique solutions they may not have considered", "presenting innovative solutions to clients", "our products/service is custom designed for each client", "providing innovative ideas and solutions to clients", "being industry leaders in providing innovative solutions", "our business model puts the customer first" and "the nature of products/services support to customers. Respondents were asked to rate their efforts in customer service innovation using a seven-point scale ranging from *(1) "strongly disagree" to (7) "strongly agree*". The confirmatory factor analysis (CFA) was then conducted on the eight items to see if the expected construct fits well [chisquare = 29.483, degrees of freedom = 20; p-value = 0.079; RMSEA = 0.052; CFI = 0.945]. Analysis indicates a good fit with the observed covariance matrix as shown in Table 4.3. The Cronbach's alpha value of 0.6763 which exceeds the acceptable alpha value of 0.65 also indicate the general reliability of the construct.

**Table 3.2: Reliability and Validity Tests**

| Variables | Chisquare | Degree of freedom | Chi-square / degrees of freedom | Significance level | RMSEA | CFI | Alpha |
|---|---|---|---|---|---|---|---|
| Product innovation (PI) | 7.005 | 5 | 1.401 | 0.220 | 0.048 | 0.989 | 0.7586 |
| Technological Innovation (TI) | 16.620 | 9 | 1.847 | 0.055 | 0.069 | 0.978 | 0.7748 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Customer service Innovation (CSI) | 29.483 | 20 | 1.474 | 0.079 | 0.052 | 0.945 | 0.6763 |
| Market dynamism (MD) | 5.658 | 5 | 1.132 | 0.341 | 0.027 | 0.994 | 0.6826 |
| Performance (PFM) | 14.985 | 9 | 1.665 | 0.091 | 0.061 | 0.987 | 0.8369 |

Source: Author (2016)

**Business External environment**

Business external environment involves the external factors outside the control of the firm but which has a direct influence on the firms' activities and performance. It was proxy by market dynamism (MD). Dynamic markets involves the rate with which firms exit or enter a particular market due to stiffness of competition and the dynamic nature of economic and technical environment surrounding that particular market. To capture market dynamism, five items were used. These include: "customers are becoming more complex and unpredictable", "suppliers have greater control over raw material supply", "we are confronted with stiffer competition from industry players", "the cost of doing business in generally high", and "there is irregular power supply". Respondents were asked to how dynamic the market within which they operated was using a seven-point scale ranging from *(1) "strongly disagree" to (7) "strongly agree*". As shown on Table 4.3, the confirmatory factor analysis (CFA) was conducted on the five items to see if the expected construct fits well [chi-square = 5.658, degrees of freedom = 5; p-value = 0.341; RMSEA = 0.027; CFI = 0.994]. Analysis indicates a good fit. The Cronbach's alpha value of 0.6826 also shows that the construct is also reliable.

**Performance (PFM)**

Performance was measured in this study using six main items. These included: (1) net profits, (2) increase in return on assets, (3) increase in market share, (4) expansion in new geographic market, (5) increase in sales turnover, and (6) efficiency in resource utilization. As shown on Table 4.3, the confirmatory factor analysis (CFA) was conducted on the six items to see if the expected construct fits well [chi-square = 14.985, degrees of freedom = 9; p-value = 0.091; RMSEA = 0.061; CFI = 0.987]. Analysis indicates a good fit. The Cronbach alpha value of 0.8369 also exceeds the acceptable statistical index of 0.65; thus the items are also reliable for further analysis.

**Control Variables**

To help achieve the study purpose, three control variables were included in the modeling; namely industry sector, age, family involvement and business type. Age is measured by number the years the firm has operated. Age captures the experience the firm has gathered in the industry. Literature suggests that the age of firms greatly affects their performance. Family involvement on the other hand captures the rate at which the family influences management decisions and governance. To identify how involved the family system is in the management and governance of the firm, respondents were asked these questions: (a') "how many family members is part of the management team or board of directors of this company?" and (b) "does the family influence the decisions of this company?" industry sector was measured as a dummy variable – 0 if firm is service oriented or 1 if firm is manufacturing oriented business

## 3.6 Data Analysis

Analysis means to categorize order, manipulate and summarize data to answers obtained from the question of the research. The analysis is to purposefully lessen data to an understandable form and can be interpreted so that the relations of research problems can be studied tested and draw conclusions. The interpretations of result are analyzed, make inferences relevant to the research relations studied and draw conclusions about these relations. For this study, data entry screens were developed in SPSS for Data Entry. This applied to the quantitative data collected. The qualitative data was coded and entered into

MS Excel before being transported to Predictive Analytic Software (PASW) formerly Statistical Package for Social Scientist (SPSS). SPSS Windows Version 20 was used for the analysis. This is due to its modified features and accessibility. The Hierarchical Multiple Regression (HMR) technique was used to explore the impact of the independent variables on performance whilst also examining the individual effect of the moderators on the estimated empirical relationship. The strength of the Hierarchical Multiple Regression is its ability to examine interactive effects aside direct relationship between variables.

### 3.7 Ethical Issues

During data collection process, due consideration will be given to gain the approval of each participant on their participation in the study. The study will be conducted strictly on voluntary basis. The researcher will value the participants' right and confidentiality. The outcome of the research will be presented without any departure from the result. All research materials such as publication and books of others used in the study will be fully acknowledged by the researcher.

### 3.8 Profile of Kumasi

Kumasi is the metropolitan city of Ashanti Region, located in the central part of Ghana and the second biggest city of Ghana. The city is endowed with natural vegetation such as urban trees, forest and wetlands (Adarkwa, 2011). The city derive it name the garden city because of the beautiful species of flora and fauna and is approximately 300 miles north of the Equator and 100 miles north of the Gulf of Guinea. The city has most government agencies and the business environment is very brisk.

Kumasi is bordered to the south by Bosomtwe district, to the east by Ejisu Juaben muni cipal, to the west by Atwima Kwawoma District and to the north by Kwabre East District.

These district and municipality have abundance of natural vegetation hence they engage in Agriculture. These fertile lands are used in agriculture that serves as food for the city of Kumasi as well as raw materials for firms in the metropolis. The city is attractive to quite number of investors both small and large. Firms in various industries operate in the city which includes the timber industry (woodworkers and furniture manufacturing companies).

In addition, there are opportunities for construction firms within the city quarrying industry at the border district serves as a major source of materials for building for housing development, and construction works. Most of these businesses such as timber, construction, shoe making, mechanics, and beautician are family owned firms that have family succession plans for their future generation.

# CHAPTER FOUR

# DATA ANALYSIS AND PRESENTATION

## 4.1 Introduction

This section focuses on the data analysis with the purpose of studying the how external characteristics leverage the impact of firm innovativeness on performance of micro and small family businesses. The chapter is divided into three sections. The first section focuses on the descriptive summary of the respondents to explore the attributes and characteristics of the respondents sampled. The second section then examines the relationships between the variables whereas the third and final section focuses on the discussion of results.

## 4.2 Demographic Analysis of Sample

The demographic analysis of sample was conducted to examine the characteristics of respondents and firms included in the study. Table 4.1 and 4.2 focuses on the sample characteristics of respondents and firm attributes respectively. From Table 4.1 it is revealed that 77.4% representing 137 out of 177 total respondents sampled were males; whiles the remaining 22.6 percent were females. It is also demonstrated on the same table that most of the respondents, 148 representing 83.6% are about 35-39 years. This is followed by those who are between 30-34years representing 14.1% of the total sample. Those whose ages fell below 29 years as well as those who were 40 years and above at the time of the survey were found to be very small in the sample. Put together, they did not represent more than 2.5% of the total sample.

On the issue of turnover, reports on Table 4.1 illustrate that most of the respondents had more than 10 years of experience in their fields of endeavors. Demographic analysis shows that they represented about 74% of the total sample. This is followed by those who had about 5-10 years of experience. Put together, results indicates that they represented 24.8% (44 out of 177) of the sample.

**Table 4.1: Characteristics of Respondents**

| | | **Frequency** | **Percent** |
|---|---|---|---|
| Gender | Male | 137 | 77.4 |
| | Female | 40 | 22.6 |
| | Total | 177 | 100.0 |
| | | | |
| Age | 26-29 | 3 | 1.7 |
| | 30-34 | 25 | 14.1 |
| | 35-39 | 148 | 83.6 |
| | 40+ | 1 | .6 |
| | Total | 177 | 100.0 |
| | | | |
| Turnover | 3-4yrs | 2 | 1.1 |
| | 5-6yrs | 19 | 10.7 |
| | 7-8yrs | 10 | 5.6 |
| | 9-10yrs | 15 | 8.5 |
| | 11+ | 131 | 74.0 |
| | Total | 177 | 100.0 |

Having examined the general pattern of respondents in the sample, Table 4.2 presents the firm characteristics. It is shown that most of the businesses sampled were one-man owned. They represented about 94.4% of the total sample. Only 10 firms representing 5.7% were formed by partnership and limited liability. Not surprising, it is also shown that out of the total number of firms sampled, 160 firms representing 98.8% indicated that there were some form of family involvement in management and decision making processes. 131 firms representing 74% had been established for more than decade. Meanwhile, 43 of these enterprises representing 24.2% had been formed between 5-10 years.

**4.2: Firm Characteristics**

| | | Frequency | Percent |
|---|---|---|---|
| Type of business | Sole | 167 | 94.4 |
| | Partnership | 6 | 3.4 |
| | Limited Liability | 4 | 2.3 |
| | Total | 177 | 100.0 |
| | | | |
| involvement | Yes | 160 | 98.8 |
| | No | 2 | 1.2 |
| | Total | 162 | 100.0 |
| | | | |
| Industry | Service | 87 | 49.2 |
| | Manufacturing | 90 | 50.8 |
| | Total | 177 | 100 |
| | | | |
| Age | 3-4yrs | 3 | 1.7 |
| | 5-6yrs | 13 | 7.3 |
| | 7-8yrs | 16 | 9.0 |
| | 9-10yrs | 14 | 7.9 |
| | 11+ | 131 | 74.0 |
| | Total | 177 | 100.0 |

### 4.3 Descriptive Statistics and Correlation Analysis

#### 4.3.1 Descriptive Statistics

Table 4.4 reports the descriptive summary of key variables and controls. Results indicate that average level of customer service innovation is high (mean of 5.28) compared to technological innovation (mean of 4.74) and product innovation (mean of 4.69). Standard deviation results indicates that a significant variation exists among firms in terms of technological innovation than product innovation (SD = 0.64) and customer service innovation (SD = 0.44) respectively. In reference to performance and MD, it is shown on Table 4.4 below that performance is moderate high (mean of 4.72); meanwhile the dynamic nature of the market was shown to be relatively high with a mean of 5.8.

**Table 4.3 Descriptive Summary of Variables**

| Variable | N | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| PI | 177 | 4.69 | 0.64 | 2.6 | 6 |
| TI | 177 | 4.74 | 0.87 | 2.167 | 6.3 |
| CSI | 177 | 5.28 | 0.44 | 2.875 | 6.5 |
| MD | 177 | 5.80 | 0.62 | 3.8 | 7 |
| Industry Sector | 177 | 0.51 | 0.50 | 0 | 1 |
| PFM | 177 | 4.72 | 4.72 | 2.67 | 6.3 |
| Age | 177 | 5.45 | 1.04 | 2 | 6 |
| Involvement (Involve) | 162 | 0.01 | 0.11 | 0 | 1 |
| Type Of Business (Type) | 177 | 0.08 | 0.34 | 0 | 2 |

Age (measured as the number of years of establishment), family involvement and the type of business were introduced as control variables in the analysis. Family involvement (1 = yes; and 0 = otherwise) and the type of business (0 = one-man business, 1= partnership, 2 = limited liability) were measured as a dummy variables; whereas age was measured as an ordinal variable (1= less than 3 years, 2 = 3-4yrs, 3 = 5-6yrs, 4 = 7-8yrs, 5= 9-10yrs and 6 = 11 and above). As shown on Table 4.4 above the youngest firms had operated for about 3-4 years whereas the oldest firms had operated for more than 11 years. However on average, each firm had operated for between 9-10 years.

### 4.3.2 Correlation Analysis

Table 4.5 presents the correlation matrix specifying the degree of association between the independent and dependent variables. Per the study objectives industry and MD are introduced as moderators whilst PI, TI and CSI are handled as the independent variables. PFM is the dependent variable whilst business type, involve and age are introduced as the control variables. Correlation statistics indicates that have a significant relationship with performance (PFM) with a positive relationship observed for MD (correlation statistics, r = 0.162) whereas industry was observed to have a negative association with performance (correlation statistic, r = -0.378). All the independent variables were observed to have a positive correlation with performance, though results show that they not strong correlate.

Similarly, with the exception of family involvement (involve), all the control variables were observe to have a weak degree of association with performance. Precisely, the correlation statistic of 0.028 shows that age has a positive association with performance indicating that performance increase with an increase in firms' age. Results show that business type (correlation statistic of -0.090) and family involvement (correlation statistic of -0. 162) have a negative relationship with performance.

Focusing on the moderators, results indicate that only CSI has a strong correlation with the MD (correlation statistic = 0.178) and the industry sector (correlation statistic = 0.237). This means that the family firms are expected to increase customer service innovations when the market becomes more volatile; however customer service innovations is higher for manufacturing oriented firms than service based firms.

**Table 4.4: Correlation Matrix**

| | Business Type | involve | age | Industry | PI | TI | CSI | MD | PFM |
|---|---|---|---|---|---|---|---|---|---|
| Business Type | 1.00 | | | | | | | | |
| Involve | -.022 | 1.00 | | | | | | | |
| Age | -.355** | .052 | 1.00 | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Industry sector | .095 | .113 | .091 | 1.00 | | | | | |
| PI | .004 | .056 | .065 | .268** | 1.00 | | | | |
| TI | -.036 | .011 | .111 | .418** | .635** | 1.00 | | | |
| CSI | -.152* | -.058 | .281** | .237** | .423** | .587** | 1.00 | | |
| MD | -.360** | .023 | .505** | .029 | -.040 | .104 | .178* | 1.00 | |
| PFM | -.090 | -.162* | .028 | -.378** | .012 | .048 | .121 | .162* | 1.00 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The rest of the independent variables did not have any significant degree of association with the MD; however for the industry sector it is shown on Table 4.5 above that both technological innovation (correlation statistic = 0.418) and product innovation (correlation statistic = 0.268) have a strong positive correlation with industry. Thus it is suggested that all the three forms of innovation are adopted at a higher degree within the manufacturing sector than the service sector; this could be due to the stiff level of competition present within the manufacturing sector than in the service sector. With reference to the relationship between the control variables and the mediator variables, it is generally deduced that one-man business entities and old established firms are more rampant in more dynamic markets than in stable markets.

**4.4 Regression Results**

The Hierarchical Multiple Regression (HMR) technique was used to explore the impact of the independent variables on performance whilst also examining the individual effect of the moderators on the estimated empirical relationship. The strength of the Hierarchical

Multiple Regression is its ability to examine interactive effects aside direct relationship between variables.

The analysis involved the estimation of four interconnected models. In Model 1 the study focuses on estimating the effects of the control variables on family firm performance. For model 2, the three forms of innovation (i.e. product innovation, technological innovation, and customer service innovation) are then included into the model. The purpose is to examine their direct impact whilst controlling for the firm specific variables. For model 3, the moderator variable (either industry sector or market dynamism) is added to the previous variables to examine the direct contribution of the moderator variable on family firm performance. The fourth and final stage of the analysis then involved the addition of interactive terms to statistically examine the interactive effects. All the interactive terms were constructed based on centered values of the moderator variables and the independent variables. See appendix for details on how each interactive term was created.

**4.4.1 Examining the Moderating Role Market Dynamism**

Table 4.7 presents the analysis on the role of market dynamism on the relationship between innovation and performance. As discussed earlier, four interconnected models were estimated. Model 1 which examined the impact of the control variables on firm performance. Report shows that family involvement has a negative and significant impact on performance ($\beta = -1.229$, $p < 0.001$). Results also show that industry sector is negatively related to performance ($\beta = -0.361$, $p<5\%$) indication of the fact that performance of the manufacturing firms is lower than that of the service firms. Unfortunately, no significant impact was found between business type ($\beta = -0.0455$, $p >$

$0.1$), and age ($\beta = 0.011$, $p > 0.1$) on family firm performance. Under model 2 the innovation variables included in the estimation. Results indicate that none of the independent variables controlling for family involvement, business type and age had any significant impact on firm performance. The effect of product innovation (β = 0.003, p > 0.1) and customer service innovation (β = 0.144, p > 0.1) were positive but weak; whereas technological innovation was shown to have a negative (β = -0.014, p > 0.1) but insignificant impact on performance. Meanwhile the results indicate that the impact of family involvement (β = -1.190, p < 0.001) and industry sector (β = -0.468, p<5%) are still negative and relevant more than the individual impact of the innovation variables. In model 3, market dynamism was introduced into the model. The results reveal that the firm performance increases as the market becomes more dynamic (β = 0.276, p < 0.001). This supports hypothesis 2 which states that there is a significant relationship between market dynamic and performance of small family businesses.

**Table 4.5: Regression Results – Effect of Market Dynamism**

| | Model 1 (SE) | Model 2 (SE) | Model 3 (SE) | Model 4 (SE) | VIF |
|---|---|---|---|---|---|
| Constant | 5.936(0.474)*** | 5.278(0.940)*** | 3.854(1.069)*** | 2.480(0.956)** | - |
| Business type | -0.0455(0.136) | -0.0375(0.130) | 0.0861(0.116) | 0.173(0.0850)** | 1.245 |
| Age | 0.0112(0.0623) | -0.00626(0.0646) | -0.0508(0.0665) | -0.0585(0.0671) | 1.508 |
| Industry Sector | -0.361(0.119)*** | -0.465(0.128)*** | -0.461(0.126)*** | -0.467(0.130)*** | 1.287 |
| PI | | 0.00349(0.143) | 0.0332(0.137) | 0.261(0.209) | 3.191 |
| TI | | -0.0140(0.107) | -0.0361(0.104) | 0.236(0.147) | 3.967 |
| CSI | | 0.144(0.202) | 0.125(0.193) | 0.423(0.185)** | 1.841 |
| MD | | | 0.276(0.120)** | 0.275(0.142)** | 1.538 |
| PI x MD | | | | -0.413(0.287) | 2.513 |
| TI x MD | | | | 0.464(0.222)** | 3.913 |
| CSI x MD | | | | -0.736(0.294)** | 1.916 |
| | | | | | |
| N | 162 | 162 | 162 | 162 | |
| R-sq | 0.027 | 0.031 | 0.053 | 0.087 | |
| adj. R-sq | 0.008 | -0.007 | 0.010 | 0.026 | |

Standard errors in parentheses
* p<0.1 ** p<0.05 *** p<0.01

In model 4, all the interactive terms were included in the model to estimate the moderating role market dynamism. Reports indicate that firm performance increases with market dynamism ($\beta = 0.275$, $p < 0.001$).

Again, results indicate that product innovation ($\beta = 0.261$, $p > 0.001$), technological innovation ($\beta = 0.236$, $p > 0.001$) and customer service innovation ($\beta = 0.423$, $p < 0.05$) have a positive impact on performance; From the results it is indicated that hypothesis 1c which states that customer service innovation has a positive and significant impact on small family firm performance was fully supported. Hypotheses 1a which posited a positive relationship between product innovation and performance was partially supported whiles hypothesis 1b was also partially supported. Reports show that the interaction of market dynamism and technological innovation (TI x MD, $\beta = 0.464$, $p < 0.001$) has a significant impact on performance. This implies that the market dynamism positively moderated the relationship between technological innovation and family firm performance. Thus hypothesis 3b was fully supported. However with reference to relationship between customer service innovation and performance, market dynamism was shown to negatively moderate the customer service innovation-performance relationship. The coefficient of the interactive term of customer service innovation and market dynamism (CSI x MD, $\beta = -0.736$, $p < 0.001$) was significant, thus hypothesis 3c which states that market dynamism positively moderates the relationship between customer service innovation and small family firm performance was not supported. Meanwhile for the relationship between product innovation and performance, results indicate that market dynamism performed a weak but negative moderating role (PI x MD, $\beta = -0.413$, $p > 0.001$); thus hypothesis 3a which states that market dynamism positively moderates the relationship between product innovation and small family firm performance was not supported.

### 4.5 Discussion of Results

This study explores the effect of organizational innovation on the performance of micro and small family businesses in Ghana. The significance of the study lies in the fact that whereas the family firms have been widely acknowledged as the foundation of innovation; they survival rate of family firms across the world is poor although the relevance of innovation to firm performance and competitive survival has been widely established in literature, (see, Damanpour, 1991). This could be attributed to the harsh and dynamic business environment most firms operate and the fact that firms might be focusing on some dimensions of innovation which may not be beneficial to their survival. Due to this there was the need to look at the various forms of firm innovativeness – customer service innovation, product innovation and technological innovation - and how it impinges on family firm performance. The focused on unique dataset, family firms in Ghana; which are known to be highly affected by increased globalization and institutional barriers. A hierarchical multiple linear regression technique was used to arrive at the research objectives. The study results supported the assertion that firm innovation leads to increased organizational performance. It was observed that product innovation, technological innovation and customer service innovation have a positive influence on family firm performance; however, the results suggests that customer service innovation is more relevant the performance of small and micro family businesses than product and technological innovation. This is in contrast to the view that product innovation is relevant to businesses. Naldi et al (2007) and Damanpour (1991) has argued that innovation leading to the development and the consequent launching of a new product translates into better performance than any area of innovation. However due the weak institutional support and inadequate resource capacity, small and micro family firms in Ghana and for that matter Africa are not likely to build and compete with the large sized multinational companies on the basis of product and technological innovation. In the highly industrialized and developed economies; property rights and strong regulatory systems are religiously implemented and protected. This could give businesses the platform to invest and reap from pursuing product and technological innovation, but this is unlike Ghana. The implication therefore is that because family firms have a comparative advantage in network capital within the market; innovation is geared towards customer service approach to gaining competitive advantage. Astrachan and Strider (2005) conclude that the level of social capital of micro and small businesses is high and can be used as a strategic asset. The resource-based view also posits that it is beneficial for firms to focus resources on the areas of comparative advantage to create valuable, rare, imitable, and non-substitutable.

Tokarczyk et al (2007) add that by observing that family businesses, they have distinctive capabilities that provide an advantage on competition due to the "tacitness" rooted in their resources. Barney (1991) also argues that an organization's processes will invincible should it capture the exclusive past condition, path reliance, fundamental uncertainty, and social complexity associated with the firm. Thus the innovativeness of small and micro family firms should be built in the area of customer service activities. That is surely to lead to an upward thrust in competitive survival. Meanwhile the concentration customer service innovation has its limitations, the results show that as the market becomes more dynamic, the effect of customer service innovation on micro and small family firms' performance reduces. The implication is that customer service innovation may be more relevant in stable and less dynamic markets than in high dynamic market. In high dynamic market, the study results reveal that technological innovation is relevant for micro and small family firms.

### 4.5.1 Contribution to Theory

The relevance of innovation has been highly explored literature; however the results of innovation research have been largely inconsistent, (Damanpour, 1991). This research contributes to the growing debates by focusing on an African context – small and micro family firms in Ghana. The study findings emphasizes that though all the forms of innovation connotes a optimistic consequence on family firm performance, the individual impact of the innovation forms is subject to some prevailing external conditions. Overall customer service innovation is the best form of organizational innovativeness to family firms but only in stable and less dynamic markets. Under highly dynamic markets, it is shown that technological innovation is suitable for small and micro family firms.

Theoretically product innovation has been emphasized by academicians as the best form of innovation; but the conclusions drawn from this study findings points to the fact that it is not the best way to go for small and micro family firms in Ghana.

### 4.5.2 Practical implication

Small and micro family firms in Ghana have concentrated on product innovation as a strategy to differentiate from competitors' usually large size domestic firms and multinational companies. However since small and micro family firms do not have the capacity to compete with these competitors in product innovation, the effect product innovation draws on their performance is weak; especially given the high preference of the Ghanaian market to foreign products. The best approach to pursue according to the study results is to focus on the area of comparative advantage which is acknowledged strategic management experts to be their network capabilities. Thus small and micro family firms should continually improve on their network with customers and build strong customer relationships through innovative ideas. This is the appropriate mechanism for these firms to enhance performance. Meanwhile focusing on customer service innovation without recourse to the signaling of the external business environment is also inappropriate. The study results show that as the market becomes more dynamic the effect of customer service innovation on family firm performance erodes. As the market becomes more dynamic and volatile, the need is required for technological innovation. This shows that practically small and micro family firms should exercise a contingency approach in their innovative practices: in stable and less dynamic markets, customer service innovation is required but with volatile external markets technological innovation is suitable.

It is shown that the external business environment significantly affects firm performance. However the effect of the external environment on firm performance is not the same. The study shows that market dynamism positively affects performance. Thus one can expects that as firm performance will relatively be higher for family businesses in more unstable markets than those in stable markets. This result is interesting because in more stable markets, market forces are less likely to vary and family businesses can easily predict market trends and adjust; however it is shown that as markets move from stable conditions to more dynamic conditions family firm performance increases. This could be attributed to the aggressive approach of businesses under such conditions.

The report indicates that the moderating role of the relationship between external characteristics and innovativeness on family firm performance is mixed. This study shows that the leveraging effect of external characteristics is dependent on the specific type of innovation and the external force at play. For instance results show that market dynamism negatively moderates the effects of product innovation and customer service innovation on family firm performance. However, it is expected to positively moderate the relationship between technological innovation and performance of small family firms in Ghana.

# CHAPTER FIVE

# SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

## 5.1 Introduction

This chapter discusses the summary of key findings to reiterate the key findings obtained in the study. It also attempts to draw some conclusions based on the key findings and then offer recommendations for the enhancement of family business performance in Ghana.

## 5.2 Summary of Findings

The purpose of this study was to examine the moderating role of business external characteristics on the effect of small family firm innovativeness on business performance. A total of 200 small and micro family firms in Ghana were sampled for this survey, however after thorough checks, 177 responses were passed as credible. A business external characteristic was measured using market dynamism. Family firm innovativeness was also examined using three main themes – product innovation, technological innovation and customer service innovation. The hierarchical linear regression technique was then used to examine the study relationships and to obtain answers to the research questions. Some interesting findings were obtained at the end of the survey.

### 5.2.1 The Effect of Innovativeness on Small Family Firm Performance

It was realized that impact of innovativeness on small family firm performance is positive. Reports indicate that product innovation, technological innovation and customer service innovation generally have a positive effect on small family firm performance. This indicates that family firms can pursue innovation to increase performance.

Specifically it is shown that technological innovation is relevant when the industrial environment is controlled. Customer service innovation is also relevant when the dynamism of the market is also controlled.

### 5.2.2 The Effect of External Characteristics on Small Family Firm Performance

It is shown that the external business environment significantly affects firm performance. However the effect of the external environment on firm performance is not homogenous. For instance it is revealed that market dynamism positively affects performance. Thus one can expects that as firm performance will relatively be higher for family businesses in more volatile markets than those in stable markets. This result is interesting because in more stable markets, market forces are less likely to vary and family businesses can easily predict market trends and adjust; however it is shown that as markets move from stable conditions to more dynamic conditions family firm performance increases. This could be attributed to the aggressive approach of businesses under such conditions.

### 5.2.3 The Moderating Role of External Characteristics

Reports indicate that the moderating role of external characteristics on family firm innovativeness and performance is mixed. This study shows that the leveraging effect of external characteristics is dependent on the specific type of innovation and the external force at play. For instance results show that market dynamism negatively moderates the effects of product innovation and customer service innovation on family firm performance. However, it is expected to positively moderate the relationship between technological innovation and performance of small family firms in Ghana.

### 5.3 Conclusions

From the study results, it can be concluded that though the effect of innovation on family firm performance is expected to be positive; however the strength of impact is dependent on other external factors surrounding the business. In dynamic markets, the evidence shows that customer service innovations are more relevant if the firm is interested in extracting direct gains its innovativeness. However such an approach must be exercised with caution, this is due to the fact that when customer service innovation is integrated with the market dynamism; the gains from CSI reduce. This will only be possible if the family firm is caught in the web of altering the customer service approaches as radically as the market conditions changes. Under such circumstance the firm is seen as unfocused as customer services keep changing with no clear culture in mind. Contrary, reports show that in dynamic markets family firms must be highly technically innovative. That is technological approaches must be adjusted and modified as constant as the market conditions demands it. This is because technologies become easily obsolete in dynamic markets than in stable markets. In dynamic markets, obsoletes technologies become inefficient and results in avoidable costs.

### 5.4 Recommendations

It is generally recommended that small and micro family firms in Ghana should invest in technological innovations and customer service innovation. However, such investment must consider the external environment within which the firm operates. Investments in customer service innovations are beneficial in stable and less dynamic markets. Managements are however advised on the rate at which customer service approaches and policies are modified. When the company wants to invest in innovation to keep up with the changing market environment, it must do so with technological adjustments and not on the shoulders of its customer service policies. Altering the customer service as rapidly as the market conditions alter, is seen to be detrimental; however, innovating based on technical lines is relevant under such conditions. The results also generally portray the detrimental effect of increased family involvement in the operations of small family firms. Family firms are therefore advised to reduce the extent of family influence in the general management and operations of the business as this is shown to reduce firm performance. Especially decisions that alter the management decisions and governance alter the financial efficacy and the firm and leads to poor performance.

## REFERENCES


Abor, J and Quartey,P (2010).Issues in SMEs in Ghana and South Africa International Research, Journal of Finance and Economics Issue 39 218-228. http://www.eurojournals.com/irjfe_39_15.pdf Accessed on 14 June 2011

Acquaah, M., Adjei, M. & Mensa-Bonsu, I. F. (2008). Competitive strategy, environmental characteristics and performance in African emerging economies: Lessons from firms in Ghana. Journal of African Business, 9(1): 93-120

Acquaah, M. (2005). Enterprise Ownership, Market Competition and Manufacturing Priorities in a Sub-Saharan African Emerging Economy: Evidence from Ghana, Journal of Management and Governance, 9, 205–235.

Adarkwa, K. K. (2011). The Role of Kumasi in National Development - Kumasi as a Central Place. In K. K. Adarkwa (Ed.), Future of the tree: towards growth and development of Kumasi.

Ahn, S. (2002). Competition, innovation and productivity growth. OECD.

Ahunjonov Umidjon , Hu Shuhua, Bandula Jayathilake, Mu Renyan (2014)Characteristics of Small and Medium Enterprise Innovativeness: Cases of Uzbekistan and China International Journal of Management Science And Business Administration Vol 1. No 1. December 2014., pp. 12–27

Aldaba, R. 2008. "SMEs in the Philippine Manufacturing Industry and Globalization: Meeting the Development Challenges". Chapter 8 in ERIA Research Project Report 2007 No. 5. In Asian SMEs and Globalization, ed. Lim, H..

Amara, N., & Landry, R. (2005). Sources of information as determinants of novelty of innovation in manufacturing firms: Evidence from the 1999 statistics Canada innovation survey. Technovation, 25(3), 245-259.http://dx.doi.org/10.1016/S0166-4972(03)00113-5

Anand, J., Brenes, E. R., Karnani, A., and Rodriquez, A. (2006). Strategic Responses to Economic Liberalization in Emerging Economies: Lessons from Experience, Journal of Business Research, 59, 365–371.

Aryeetey, E. 2001. "Priority Research Issues Relating to Regulation and Competition in Ghana", Centre on Regulation and Competition Working Paper Series, University of Manchester, Manchester.

Audretsch, D. & Z. Acs (1998). "Innovation in Small and Large Firms: An Empirical Analysis" American Economic Review, 78(4), 678-90.

Audretsch, D.B., M.A. Carree and A.R. Thurik, 2001, Does entrepreneurship reduce unemployment? Tinbergen Institute Discussion Paper TI2001-074/33, Rotterdam: Tinbergen Institute.

Aulakh, P. S., Kotabe, M., and Teegen, H. (2000). Export Strategies and Performance of Firms from Emerging Economies: Evidence from Brazil, Chile, and Mexico, Academy of Management Journal, 43, 342–361.

Adarkwa 2011Bae, J. and Lawler, J. J. (2000). Organizational and HRM Strategies in Korea: Impact on Firm Performance in an Emerging Economy, Academy of Management Journal, 43, 502–517.

Baker, W.E. & Sinkula, J.M., "The Synergistic Effect of Market Orientation and Learning Orientation on Organizational Performance", Journal of Academy of Marketing Science, 1999, Vol. 27, No.4: 411-427.

Barwa S. D. (1995), Structural Adjustment Programme and the Urban Informal Sector in Ghana, Issues in Development, Discussion Paper

Barney, J.B. and Tyler, B. 1991. The prescriptive limits and potential foor applying strategic management theory, Managerial and Decision Economics, in press.

Beal, R. M. and Yasai-Ardekani, M. (2000). Performance Implications of Aligning CEO Functional Experiences with Competitive Strategies, Journal of Management, 26, 733–762.

Birley, S., Dennis, N., & Godfrey, A. (1999). The family and the business. Long Range Planning, 32(6), 598-608.

Bigsten, A., P. Collier, S. Dercon, M. Fafchamps, B. Gauthier, J.W. Gunning, A. Oduro, R. Oostendrop, C. Pattillo, M. Soderbom, F. Teal and A. Zeufack (199b) 'Adjustinf Costs, Irreversibility anf Investment Patterns in African Manufactring', mimeo, Goteborg: IMF and Department of Economics

Bowen, F.E., Rostami, M., Steel, P., 2010. Timing is everything: A meta-analysis of the relationships between organizational performance and innovation. J. Bus. Res. 63 (11), 1179–1185.

Brax S (2005) A manufacturer becoming service provider – Challenges and a paradox. Manag Serv Qual 15(2):142–56.

Burke, Monica Galloway; Carter, Joelle Davis; and Hughey, Aaron W.. (2013). The Use of Case Study Competitions to Prepare Students for the World of Work. Industry & Higher Education, 27 (3), 157-162

Calantone, R.J., Cavusgil, S.T., Zhao, Y. "Learning Orientation, Firm Innovation Capability, and Firm Performance." Industrial Marketing Management, 2002, Vol. 31: 515-524.

Camps, S., Marques, P., 2014. Exploring how social capital facilitates innovation: The role of innovation enablers. Technol. Forecast. Soc. Chang. 88 (October), 325–348.

Carney, M. 2005. Corporate Governance Competitive Advantage In Family-Controlled Firms. *Entrepreneurship Theory & Practice*, 29, 249-265.

Carnes, C., Ireland, R., 2013. Familiness and Innovation: Resource Bundling as the Missing Link. Enterp. Theory Pract. 37 (6), 1399–1419.

Carsamer, E. (2009). Access to credit by SMEs in Ghana: Does the type of business matter? Winneba: Jim Waler Light and Salt Publishers

Caves, R.E. (1998). Industrial Organization and New Findings on the Turnover and Mobility of Firms, Journal of Economic Literature 36, pp. 1947-1982.

Carsamer, E. (2009). Access To Credit by SMEs in Ghana:Does the type of business matter? Social Science Today. Winneba: Jim Waler Light and Salt Publishers.

Chandy, R., and G. Tellis (1998), "Organizing for Radical Product Innovation: The Overlooked Role of Willingness to Cannibalize," Journal of Marketing Research, 35(4), 474-88.

Chen, H.-L., Hsu, W.-T., 2009. Family ownership, board independence, and R&D investment. Fam. Bus. Rev. 22 (4), 347–362.

Chirico, F., Nordqvist, M., 2010. Dynamic capabilities and trans-generational value creation in family firms: The role of organizational culture. Int. Small Bus. J. 28 (5), 487–504.

Chrisman, J. J., Chua, J. H., & Sharma, P. (2005). Trends and directions in the development of a strategic management theory of the family firm. Entrepreneurship Theory and Practice, 29(5), 555-576.

Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. Entrepreneurship Theory and Practice, 23(4), 19-39.

Cochran P. and R. Wood (1984), 'Corporate Social Responsibility and Financial Performance', Academy of Management Journal 27(1), 42–56.

Craig B. L Justine and Dibrell (2006), Natural Environment, Innovation and Firm Performance: A Comparative Study, Family Business Review, Vol 19, No. 4, pp. 275-288

Cruz, C., Justo, R., & De Castro, J. O. (2012). Does family employment enhance MSEs Performance? Integrating socioemotional wealth and family embeddedness perspectives. Journal of Business Venturing, 27(1), 62-76.

Dalberg (2011). Report on Support to SMEs in Developing Countries Through Financial Intermediaries. Retrieved from http://eudevdays.eu/sites/default/files/dalberg_smebriefing-paper.pdf

Daily, C. M. & Dollinger, M. J. 1991. Family Firms Are Different. *Review Of Business*, 13, 3–5.

Daily, C.M., Dollinger, M.J., 1992. An empirical examination of ownership structure in family and professionally managed firms. Fam. Bus. Rev. 5 (2), 117–136.

Daily, C. M., & Dollinger, M. J. (1993). Alternative methodologies for identifying family versus non-family-managed businesses. Journal of Small Business Management, 31(2), 79-90.

Damanpour, F., & Evan, W. M. 1984. Organizational Innovation and Performance: The Problem of "Organizational Lag". *Administrative Science Quarterly*, 29(3): 392-409.

Damanpour, F., Szabat, K. A. & Evan, W. M. 1989. The Relationship Between Types Of Innovation And Organizational Performance. *Journal Of Management Studies*, 26, 587601.

Damanpour, F. (1991). Organizational innovation: a meta-analysis of effects of determinants and moderators. Academy of Management Journal, 34(3), 555-590.

David J. Teece; Gary Pisano; Amy Shuen (1997), Dynamic Capabilities and Strategic Management, Strategic Management Journal, Vol. 18, No. 7. pp. 509-533.

Debrah, Y. A. (2002), Ghana. Thunderbird Int'l Bus Rev, 44: 495–513. doi:10.1002/tie.10028

De Massis, A., Frattini, F., Lichtenthaler, U., 2013. Research on Technological Innovation in Family Firms: Present Debates and Future Directions. Fam. Bus. Rev. 26 (1), 10–31.

Dess, G. G. and Robinson, R. B. (1984). Measuring Organizational Performance in the Absence of Objective Measures: The Case Study of the Privately-held Firm and Conglomerate Business Unit, Strategic Management Journal, 5, 265–273.

Dibrell, C., Davis, P.S. y Craig, J. (2008), "Fueling Innovation Through Information Technology in SMEs", Journal of Small Business Management, Vol. 46, No. 2, pp. 203-218.

Drucker, P.F. (1985) "The Practice of Innovation", Innovation and Entrepreneurship Practice and Principles, Harper & Row, New York.

Drucker, P.F. (2002) "The Discipline of Innovation", Entrepreneurship, Harvard Business Review, 80(8):95-100, 102, 148.

Dunn, B. 1996. Family Enterprises In The Uk: A Special Sector?2(3): 221–35. Family Business Review, 2, 221– 235.

Dyer, W. G. 1988. Culture And Continuity In Family Firms. *Family Business Review*, 1, 37-50.

Ellington, E. P., Jones, R. T. & Deane, R. 1996. Tqm Adoption Practices In FamilyOwned Business. *Family Business Review*, 9, 5–14.

Feeney, L. S. and A. L. Riding, 1997. Business Owners' Fundamental Tradeoff: Finance and the Vicious Circle of Growth and Control, Canadian Business Owner, November

Filbeck, G., & Lee, S. (2000). Financial management techniques in family businesses. Family Business Review, 13(3), 201-216.

FINEX and ACERD (2006). "Making SMEs Work, Making SMEs Create Work: Job Creation Through Small and Medium Enterprise Development". A joint paper by the Ateneo Center for Research and Development (ACERD) and the Financial Executives Institute of the Philippines (FINEX)

Frank, H., Keßler, A., Fink, M., 2010. Entrepreneurial orientation and firm performance – A replication study. Schmalenbachs Bus. Rev. 62 (2), 175–198.

Fukumoto, M. 2004. Development Policies for Small and Medium Enterprises in APEC In the case of the Philippines. APEC Study Center Institute of Developing Economies.

Gabsi, F., Mhenni, H., & Koouba, K. (2008). Innovation determinants in emerging countries: an empirical Study at the Tunisian firm level.

Garcia R., Calantone R., (2001) “A critical look at technological innovation typology and innovativeness terminology: a literature review”, The Journal of Product Innovation Management 19 (2002) 110—132.

Gebauer H, Bravo-Sanchez C, Fleisch E (2007) Service strategies in product manufacturing companies. Bus Strat 9(1):12–20.

Gedajlovic, E., Lubatkin, M. H. and Schulze, W. S. (2004). ‘Crossing the threshold from founder management. to professional management: a governance perspective’. Journal of Management Studies, 41, 899– 912.

Geeraerts, G., 1984. The effect of ownership on the organization structure in small firms. Adm. Sci. Q. 29 (2), 232–237.

Gómez-Mejia, L. R., Haynes, K., Nuñez-Nickel, M., & Moyano-Fuentes, J. (2007).

Gopalakrishnan, S., Damanpour, F., 1997. A review of innovation research in economics, sociology and technology management. OMEGA Int. J. Manag. Sci. 25 (1), 15–28

Greve, H.R., 2003. A behavioral theory of R&D expenditures and innovations: Evidence from shipbuilding. Acad. Manag. J. 46 (6), 685–702.

Gudmundson, D., Tower, C. & Hartman, E. 2003. Innovation In Small Businesses: Culture And Ownership Structure Do Matter. *Journal Of Developmental Entrepreneurship,* 8, 1-18.

Gunday, G., Ulusoy, G., Kilic, K., & Alpkan, L. (2011). Effects of innovation types on firm performance. International Journal of Production Economics, 133, 662e676.

Habbershon, T. G., & Williams, M. L. (1999). A resource-based framework for assessing the strategic advantages of family firms. Family Business Review, 12(1), 1-26.

Habbershon, T.G., Pistrui, J., 2002. Enterprising Families Domain: FamilyInfluenced Ownership Groups in Pursuit of Transgenerational Wealth. Fam. Bus. Rev. 15 (3), 223–237

Habbershon, T.G., Williams, M., MacMillan, I.C., 2003. A unified systems perspective of family firm performance. J. Bus. Venturing (this issue).

Handler, W. C. (1989). Methodological issues and considerations in studying fPenttinen, Esko and Jonathan Palmer (2007), "Improving firm positioning through enhanced offerings and buyer-seller relationships," Industrial Marketing Management, 36 (5), 552-64

Hatak, I., Harms, R., & Fink, M. (2015). Age, job identification and entrepreneurial intention. *Journal of Managerial Psychology*, *30*(1), 38–53.

Hill, C. W. L. (1988). Differentiation Versus Low Cost or Differentiation and Low Cost: A Contingency Framework, Academy of Management Review, 13, 401–412.

Hitt, M., R. Duane Ireland, S. Michael Camp and Donald L. Sexton (2001), Guest Editors' Introduction to The Special Issue, Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation, Strategic Management Journal, 22, 479-491

Holton, E. F. III, & Burnett, M. F. (1997) Quantitative research methods in Swanson, R. A. & Holton, E. F. III (Eds.) Human resource development research handbook: Linking research and practice (pp. 65-87). San Francisco: Berrett-Koehler

Hoskisson, R.E., L. Eden, C.M. Lau and M. Wright (2000), 'Strategy in emerging economies', Academy of Management Journal, 43 (3), 249–67.

Hurley, R. F., & Hult, G. T. M. (1998). Innovation, market orientation, and organizational learning: An integration and empirical examination. Journal of Marketing, 62(3), 42-54.

Institute of Statistical Social and Economic Research. (2002). The State of the Ghanaian Economy in 2001. Legon, Ghana: University of Ghana.

Karnani, A. (1984). Generic Competitive Strategies–An Analytical Approach, Strategic

Management Journal, 5, 367–380.

Kellermanns, F.W., Eddleston, K.A., Sarathy, R., Murphy, F., 2012. Innovativeness in family firms: a family influence perspective. Small Bus. Econ. 38 (1), 85–101.

Kemeny, T. (2010). 'Does Foreign Direct Investment Drive Technological Upgrading?' World Development, 38 (11): 1543-1554.

Khanna, Tarun, and Krishna G. Palepu. "Emerging Giants: Building World-Class Companies in Developing Countries."*Harvard Business Review* 84, no. 10 (October 2006).

Kim, L. and Lim, Y. (1988). Environment, Generic Strategies, and Performance in a Rapidly Developing Economy: A Taxonomic Approach, Academy of Management Journal, 31, 802–827

Kotha, S., Dunbar, R. L. M., and Bird, A. (1995). Strategic Action Generation: A Comparison of Emphasis Placed on Generic Competitive Methods by U.S. and Japanese Managers, Strategic Management Journal, 16, 75–83.

Kotler, P. (1991). Marketing Management: Analysis, Planning, Implementation and Control (7th edition), London, Prentice Hall.

Kotler, P., 1977. From sales obsession to marketing effectiveness. Harvard Business Review. November/December, 67-75.

Kumar, N. (1996), "The Power of Trust in Manufacturer- Retailer Relationships," Harvard Business Review, 74 (November-December), 92- 106.

Kuratko, D.F., R.D. Ireland, J.G. Covin & J.S. Hornsby. (2005) "A model of middle-level managers' entrepreneurial behavior." Entrepreneurship Theory and Practice, 29(6): 699716.

Liff, S., He, J., and Steward, F. (1993). Technology Content and Competitive Advantage: Strategic Analysis in the Steel Processing and Watch Manufacturing

Litz, R. A. (1995). The family business: Toward definitional clarity. Family Business Review, 8(2), 71–81.

Lukas, B. A., Tan, J. J., and Hult, G. T. M. (2001). Strategic Fit in Transitional Economies: The Case of China's Electronics Industry, Journal of Management, 27, 409–429.

Lumpkin, G.T., and Dess, G.G. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review 21(1):135–172.

Mathieu V (2001a) Product services: from a service supporting the product to a service supporting the client. J Bus Ind Market 16(1):39-61.

Mathieu V (2001b) Service strategies within the manufacturing sector: benefits, costs and partnership. Int J Serv Ind Manag 12(5):451-75.

Martos, M. C. V. (2007). What is a family business ? A discussion of an integrative and operational definition. Entrepreneurship and Small Business, 4(4), 473-487.

Matsuno, K., and Mentzer, J.T., 2000. The effects of strategy type on the market orientationperformance relationship. Journal of Marketing. 64 (October), 1-16.

McConaughy, D.L. & G.M. Phillips. (1999). Founders versus descendents: The profitability, efficiency, growth characteristics and financing in large, public, founding-familycontrolled firms, Family Business Review, 12(2), 123-131.

McGuire, J., A. Sundgren and T. Schneeweis (1988), 'Corporate Social Responsibility and Firm Financial Performance', Academy of Management Journal 31(4), 854–872.

Memili, E., Welsh, D.B., Kaciak, E., 2014. Organizational Psychological Capital of Family Franchise Firms Through the Lens of the Leader–Member Exchange Theory. J. Leadersh. Org. Stud. (Sage Publ. Inc.) 21 (2), 200–209.

Meyer, Klaus E. & Tran, Yen Thi Thu (2006): Market Penetration and Acquisition Strategies for Emerging Economies, Long Range Planning, 39, no. 2, 177-197

Mia, L. and Clarke, B. (1999). Market Competition, Management Accounting Systems and Business Unit Performance, Management Accounting Research, 10, 137–158.

Miles, R.E., and Snow, C.C., 1978. Organizational Structure Strategy and Process. McGrawHill, New York.

Miller, D. (1988). Relating Porter's Business Strategies to Environment and Structure: Analysis and Performance Implications, Academy of Management Journal, 31, 280–308.

Morris, M.H., 1998. Entrepreneurial Intensity. Quorum Books, Westport, CT

Naldi, L., Nordqvist, M., Sjöberg, K., Wiklund, J., 2007. Entrepreneurial orientation, risk taking, and performance in family firms. Fam. Bus. Rev. 20 (1), 33–47.

Nayyar, P. R. (1993). On the Measurement of Competitive Strategy: Evidence from a Large Multiproduct U.S. firm, Academy of Management Journal, 36, 1652–1669.

Naudé, W. and A. Szirmai, A. (2013), Industrial Policy for Development, UNU-WIDER Policy Brief, Number 2, 2013.

Neu, Wayne and Stephen W. Brown (2008), "Manufacturers forming successful complex business services," International Journal of Service Industry Management, 19 (2), 232-51

OECD (2005), The Measurement of Scientific And Technological Activities: Proposed Guidelines For Collecting And Interpreting Innovation Data, Oslo, Norway: OECD.

OECD (2006) Promoting Entrepreneurship and Innovative SMES in a Global Economy, towards a more responsible and inclusive globalization, Istanbul, Turkey June 2004.

O'Cass, A., and Julian, C., 2003. Examining firm and environmental influences on export marketing mix strategy and export performance of Australian exporters. European Journal of Marketing. 37 (3/4), 366-84.

Özsomer, A., Calantone, R.J., Di Benedetto, A., 1997. What makes firms more innovative? A look at organizational and environmental factors. J. Bus. Ind. Mark. 12 (6), 400–417.

Peiser, R. & L. Wooten. (1983). Life-cycle changes in small family businesses. Business Horizons (May-June), 58-65.

Porter, M.E., 1979. How competitive forces shape strategy. Harvard Business Review. March/April, 137-145.

Porter M. E. (1980). Competitive Strategy: Techniques for Analyzing Industries and Competitors. New York: Free Press.

Porter's (1980) Generic Strategies as Determinants of Strategic Group Memberships and Organizational Performance, Academy of Management Journal, 27, 467–488.

Porter, M. E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance.

Public Agenda (2003) Industrial-performance-disappointing-reports

PwC (Price water house Coopers), Innovation: Government's Many Roles in Fostering Innovation, 2010.

Rogers, M. (1998). 'The Definition and Measurement of Innovation'. Working Paper 10/98. Melbourne: Melbourne Institute of Applied Economic and Social Research.

Radas, S., & Božić, L. (2009). The antecedents of SME innovativeness in an emerging transition economy. Technovation, 29(6), 438-450.

Reinikka, R. and Svensson, J. 2001. Confronting Competition: Investment, Profit and Risk, in: Reinikka, R. Collier, P. (eds.): Ugandas Recovery: The Role of Farms, Firms, and Government, Kampala

Robert, H., & Brockhaus. (1994). Entrepreneurship and family business research: Comparisons, critique, and lessons. Entrepreneurship Theory and Practice, 19(1), 25-38.

Rothwell, R. (1992) Successful Industrial Innovation: Critical Factors for the 1990s. R&D Management, 22:3. p.221

Rosenbusch, N., Brinckmann, J., Bausch, A., 2011. Is innovation always beneficial? A metaanalysis of the relationship between innovation and performance in SMEs. J. Bus. Ventur. 26 (4), 441–457.

Rubera, G., Kirca, A., 2012. Firm Innovativeness and Its Performance Outcomes: A Meta-Analytic Review and Theoretical Integration. J. Mark. 76 (3), 130–147

Salomo, S., Gemünden, H. G., & Leifer, R. (2007). Research on corporate radical innovation systems: a dynamic capabilities perspective: An introduction. Journal of Engineering and Technology Management, 24(1-2), 1-10.

Salavou, H., Avlonitis, G., 2008. Product Innovativeness and Performance: A Focus on SMEs. Manag. Decis. 46 (7), 969–985.

Salvato, C. and Melin, L. (2008), "Creating value across generations in family-controlled businesses: the role of family social capital", Family Business Review, Vol. 21 No. 3, pp. 259-76.

Saunders, M., Lewis, P. and Thornill, A. (2007) Research Methods for Business Students. 4th ed. Harlow, Essex: Pearson Education Limited.

Schein, E. (1983). The role of the founder in creating organizational culture, Organizational Dynamics, 12(1), 13-28

Schiffer, Mirjam and Beatrice Weder, 2001, Firm Size and the Business Environment: Worldwide Survey Results, IFC discussion paper number 43.

Schumpeter, J. (1934). The Theory of Economic Development. Cambridge, MA: Harvard University Press.

Schumpeter J. (1942) "Capitalism, Socialism & Democracy".

Schulze, W. S., Lubatkin, M. H., Dino, R. N. and Buchholtz, A. K. (2001). 'Agency relationships in family firms: theory and evidence'. Organization Science, 12, 99–116.

Schulze, W. S., Lubatin, M. H. and Dino, R. N. (2003). 'Exploring the agency consequences of ownership dispersion among inside directions in family firms'. Academy of Management Journal, 46, 179–94.

Shanker, M. C., & Astrachan, J. H. (1996). Myths and realities: Family businesses' contribution to the US economy: A framework for assessing family statistics. Family Business Review, 9(2), 107-123

Sharma, P., Chrisman, J. J., & Chua, J. H. (1997). Strategic management of the family business: Past research and future challenges. Family Business Review, 10, 1-35.

Sharma, P., Irving, G.P., 2005. Four bases of family business successor commitment: Antecedents and consequences. Enterp. Theory Pract. 29 (1), 13–33

Sirmon, D. G., & Hitt, M. A. (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. Entrepreneurship Theory and Practice, 27(4), 339-358.

Soldressen, L. S., Fiorito, S. S., & He, Y. (1998). An exploration into home-based businesses: Data from textile artists. Journal of Small Business Management, 36, 33-44

Spicer B. H. (1978), 'Investors, Corporate Social Performance and Informational Disclosure: An Empirical Study', Accounting Review 53, 94–111.

Sunku Hahn. (2010). Competition, comparison, and innovation. Economics Letters, 106(2), 122-124.

Tang, J. and Peng, M. W. (2003). Organizational Slack and Firm Performance During Economic Transitions: Two Studies from an Emerging Economy, Strategic Management Journal, 24, 1249–1263.

Tang, M. and C. Hussler (2011). 'Betting on indigenous innovation or relying on FDI. The Chinese strategy for catchin-up', Technology in Society, 33(1-2): 23-35

Tecson, Gwendolyn (2004) "Review of Existing Policies Affecting Micro, Small and Medium Enterprises (MSMEs) In the Philippines" Makati Philippines.: Small and Medium Enterprises and Development for Sustainable Employment Program

Tidd, J., Bessant, J. and Pavitt, K. (2001) Managing Innovation: Integrating Technological, Market and Organizational Change, Wiley, Chichester.

Toshiyuki . M and Kazuyuki . M (2005) Market Dynamics and Productivity in Japanese Retail Industry in the late 1990's, January 2005; The Research Institute of Economy, Trade and Industry

Tsai, Y.H., Joe, S.W., Ding, C.G., Lin, C.P., 2013. Modeling technological innovation performance and its determinants: An aspect of buyer–seller social capital. Technol. Forecast. Soc. Chang. 80 (6), 1211–1221.

UNIDO, 1999, “SME Cluster and Network Development in Developing Countries: The experience of UNIDO”, PSD Technical Working Papers 2, UNIDO, Vienna.

Umidjon A. , Shuhua H., Jayathilake B., Renyan M. (2014) ‘Characteristics of Small and Medium Enterprise Innovativeness: Cases of Uzbekistan and China’, International Journal of Management Science And Business Administration Vol 1. No 1. pp. 12–27

Vago, M., 2004. Integrating change management: Challenges for family business clients and consultants. Fam. Bus. Rev. 17 (1), 71–80

Vance S. (1975), ‘Are Socially Responsible Corporations Good Investment Risks’, Management Review 64, 18–24.

Venkatraman, N. and Ramanujam, V. (1986). Measurement of Business Performance in Strategy Research: A Comparison of Approaches, Strategic Management Journal, 11, 231–241.

Voordeckers, W., Van Gils, A. and Van den Heuvel, J. (2007), Board Composition in Small and Medium-Sized Family Firms. Journal of Small Business Management, 45: 137–156. doi:10.1111/j.1540-627X.2007.00204.

Ward, J.L., 1988. The special role of strategic planning for family businesses. Fam. Bus. Rev. 1 (2), 105–117.

Ward, J. L. (1997). Growing the family business: Special challenges and best practices. Family Business Review, 10(4), 323-337.

Walch, D., & Merante, J. (2007). What is the appropriate business continuity management staff size? Journal of Business Continuity and Emergency Planning, 2(3), 240-250.

Wiklund, J., Shepherd, D., 2003. Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. Strateg. Manag. J. 24, 1307– 1314.

World Bank (2004), Doing Business Database, http://rru.worldbank.org/doingbusiness March

Wortman, M. S., Jr. (1994a). Theoretical foundations for familyowned businesses: A conceptual and research based paradigm. Family Business Review, 7, 3-27. Wortman, M. S., Jr. (1994b). Envisioning the future. Family Business Review, 7, 1-2.

Wright, P., Hotard, D., Kroll, M., Chan, P. and Tanner, J. (1990). Performance and Multiple Strategies in a Firm: Evidence from the Apparel Industry.

Wright, P., Kroll, M., Tu, H. and Helms, M. (1991). Generic Strategies and Business Performance: An Empirical Study of the Screw Machine Products Industry, British Journal of Management, 2, 1–9

Zahra, S. A. (2005), Entrepreneurial Risk Taking in Family Firms. Family Business Review, 18: 23–40. doi:10.1111/j.1741-6248.2005.00028.

Zahra, S., 1987. Corporate strategic types, environmental perceptions, managerial philosophies, and goals: an empirical study. Akron Business and Economic Review. 18 (2), 64-77.

Zahra, S.A., Hayton, J.C., Neubaum, D.O., Dibrell, C., Craig, J., 2008. Culture of Family Commitment and Strategic Flexibility: The Moderating Effect of Stewardship. Enterp. Theory Pract. 32 (6), 1035–1054.

Zellweger, T., 2007. Time horizon, costs of equity capital, and generic investment strategies of firms. Fam. Bus. Rev. 20 (1), 1–15.

Zhang, Y. and Yang, J. (2006), "New venture creation: evidence from an investigation into Chinese entrepreneurship", Journal of Small Business Enterprise and Development, Vol. 13 No. 2, pp. 161-73.

## APPENDIX

<u>How each interactive term was calculated?</u>

Step 1: Find the mean of each independent variable including the moderators

Step 2: Center each variable around its mean as follows:

PI_MEAN = Product Innovation – Mean of product innovation

TI_MEAN = Technical Innovation – Mean of technical innovation

CSI_MEAN = Customer service Innovation – Mean of customer service innovation

Dy_MEAN = Dynamic market – Mean of dynamic market

Ind_MEAN = Industrial sector – Mean industrial sector

Step 3: multiply the centered variables to acquire the appropriate interactive terms

PI x D = PI_MEAN x Dy_MEAN

TI x D = TI_MEAN x Dy_MEAN

CSI x D =CSI_MEAN x Dy_MEAN

PI x Industry = PI_MEAN x Ind_MEAN

TI x Industry = TI_MEAN x Ind_MEAN

CSI x Industry = CSI_MEAN x Ind_MEAN