CORPORATE ENTREPRENEURSHIP AND PERFORMANCE OF SELECTED MANUFACTURING FIRMS IN FCT-ABUJA

BY

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, NASARAWA STATE UNIVERSITY KEFFI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF SCIENCE (M.Sc.) DEGREE IN BUSINESS ADMINISTRATION

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DECLARATION

I hereby declare that this dissertation has been written by me, and it is a report of my research work. It has not been presented in any previous application for Masters of Science (MSc) degree. All quotations are indicated and sources of information specifically acknowledged by means of references.

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CERTIFICATION

The dissertation "Corporate Entrepreneurship and Performance of selected Manufacturing Firms in FCT" meets the regulations governing the award of Masters of Science (MSc) Degree in Business Administration of the School of Postgraduate Studies, Nasarawa State University, Keffi, and is approved for its contribution to knowledge.

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DEDICATION

I dedicate this dissertation to Almighty God who through His Grace and Mercy I am alive to achieve this academic height.

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ABSTRACT

The manufacturing industry has been a pillar of economic development for most developed economies. The Nigeria experience is rather a phenomenon of concern for stakeholders, as the manufacturing industry is merely struggling and currently at its lowest ebb. The alarming weak demand and appetite for locally produced goods and low export market coupled with an antecedent decline in their contribution to the gross domestic product may have accounted to the poor performance of the manufacturing sector, despite government supportive efforts. Thus, the motivation for this study. The objective was thus to assess corporate entrepreneurship on the performance of selected manufacturing firms using FCT, as the capital of Nigeria. The study relied on extant literature that provided conceptual understanding and theoretical underpinning of the study constructs, as the review of literature showed gaps, thus, further justifying the need for the empirical evaluation of the study problem. Descriptive survey design was adopted for the study. Questionnaire was used to generate the study data from a sample of 218 employees of the selected manufacturing firms. Taro Yamane sample size formula was used to determine the sample size from a population of 480 employees. Exploratory factor analysis and Convergent validity were assessed for validity of the instrument, while Cronbach and composite reliability measures were assessed for reliability of the instrument before it was administered. Simple percentage was used for the analysis of items of the questionnaires. Structural Equation Model (SEM-PLS) was the analytical tool used for data analysis with the aid of SmartPLSv3. The study found that innovativeness, risk-taking and management entrepreneurial support are influential significant strategies that can drive improved profit in manufacturing firms, thereby allowing them contribute favourably to the nation's economy. The study found that proactiveness may not be effective to drive increased performance. Based on the findings, the study concludes that improving performance of manufacturing firms in FCT can be with corporate entrepreneurship components of innovativeness, risk-taking, and management support. The study thus, recommends that manufacturing firms should instead focus on developing their immediate overall capability, by being innovative, take risk and ensure requisite management entrepreneurial support, as it will be most effective towards improving their performance and strengthen them towards facing imminent challenges inherent in their internal and external environment.

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CHAPTER ONE

INTRODUCTION

1.1Background to the Study

Globally, the manufacturing sector has been a major contributor to growth and development of nations. However, globalisation has led to increasing competitive challenges that thus have created an imminent need for manufacturing firms to approach their continuous existence from a completely different perspective (Ahmad, 2012). The antecedent reactions have overtime been different and the external and internal forces that organisations face are increasingly making them understand that there is no absolute general method towards managing and surviving in a competitive, and challenging business environment (Akinmulegun & Oluwole, 2014).

In Nigeria, the situation has not been any different, as the manufacturing sector has been faced with enormous challenges. Akinmulegun and Oluwole, (2014) held that aside from the external challenges that revolve around the conflicting government actions, such as multiple taxation, changing policies, which is most often beyond the control of the individual firms, the internal challenges, such as, employee's competency, work attitude among others, have been a major factor that has stagnated the growth of the country's manufacturing firms.

Similarly, Gbande, (2018) opined that the seemingly poor response to changing consumers demand, poor capacity utilisation, lack of efficient and effective management structure that allows for employee's engagement are among the many internal challenges bedevilling the sector. This most probably informs the views of Aluko, Akinola and Fatokun, (2004) that it would be almost impossible for the manufacturing sector to contribute beyond a single digit to the country's gross domestic product (GDP) because they lack the internal behaviour required to achieve this feat.

Conversely, Akinmulegun and Oluwole, (2014) opined that the industry still has vast potential to advance the growth and development of the country. This is resulting from the large human and intellectual capital and the abundance of natural resources in the country. However, to achieve this, there is a need to take a closer look at the increasing customer's segments that are today becoming fragmented and complex (Ahmad, 2012), as this may provide increased capacity for managing and meeting the dynamic customer needs and expectations (Tsao & Lien, 2013). However, this must start at the firm level (May, 2016).

In the views of Kuratko and Audretsch, (2013), the realisation and understanding of the changing market dynamics provide the firm with a competitive advantage that outrightly separates it from others in the industry. Osuagwu, Tende and Olumoko (2017) contend that internal challenges are better approached through a deliberate internal mechanism that is management supported towards identifying opportunities, creating a new/modifying product, proactively satisfying the market and taking risk promptly. This is what Dess and Lumpkins (2015) referred to as corporate entrepreneurship.

Davidsson and Wiklund (2001) indicated that corporate entrepreneurship is viewed generally as the encompassing firm-level behaviour that is entrepreneurial. Osuagwu, et al. (2017) opined that corporate entrepreneurship is the systemic approach at learning, which is triggered through collaborations, innovation, and individual commitment towards perceiving and taking advantage of identified opportunities in the interest of the organisation. This implies that corporate entrepreneurship is the internal strategy adopted by a firm towards using its internal structure to unlock the opportunities that abound in both its internal and external environment (Karacaoglu, Bayrakdaroğlu & San, 2013; Tende, 2015).

Further, Osuagwu et al. (2017) stated that managing corporate entrepreneurship is dissimilar to existing management practices. They opined that corporate entrepreneurship encompasses

high knowledge intensity and dynamic pattern of operation. Corporate entrepreneurship demands there is a consistent drive to identify new opportunities, act innovatively and assimilate the knowledge through a systemic cross-functional pattern outside the operating environment (Zahra & Covin, 1995). This is only achievable when there is the right entrepreneurial behaviour and intensity.

In support, Gbande and Jekelle-Mohammed (2011) opined that corporate entrepreneurship is a firm strategy that allows the firm to be creative in line with the firm's vision and mission, thereby allowing the functional unit of the organisation to have a synergy to external mediating factors that trigger entrepreneurial activities aimed towards driving improved organisation action, thus ensuring sustained competitive advantage. Similarly, Osuagwu et al. (2017) highlighted that the relevance of corporate entrepreneurship is in its capacity to revive the fortune of declining firms, adoption as a stimulant to driving innovative employee's activities and generally improving organisations performance.

Literature have indicated that in operationalizing corporate entrepreneurship, there is need for emphasis on the orientation that an organisation adopts towards innovation, risk-taking, proactiveness and the level of management support that drives the organisation (Miller, 1983; Covin & Slevin, 1991; Lumpkin & Dess, 1996; Hornsby, Holt & Kuratko, 2008). Innovativeness is a deliberate attempt at regenerating new and defining ideas that can lead to new product/services creation or modification of the existing one through technology, thereby attaining new production processes (Lumpkin & Dess, 1996).

Risk taking is a strategic approach to entering into new ventures, borrowing and undertaking activities that are new to the business environment. Proactiveness is an idealistic approach at meeting expectations and anticipating market needs and identifying opportunities in the competitor's weakness (Lumpkin & Dess, 1996). Management support is top management

understanding of the need to allow employees actively be entrepreneurial in their activities and duties in the organisation with the focus on improving performance (Hornsby et al. 2008).

Performance as a concept has attracted diverse researches and arguments (Darwish & Singh, 2013; Guest, 2011). Cascio (2015) defined performance as the attainment of the expected goals and objectives outlined over a period. Similarly, Al-Tit (2017) stated that performance is the overall outcome from a given set of organisational activities over a period. It is an indicator of expected goal attained in the organisation over a period. In measuring performance there are two specific measures that has often times been adopted and they are the financial or sometimes called the objectives and the non-financial or subjective measure (Guest, 2011).

The financial measures often referred as the objective measure involves the use of financial ratios. Examples of them are profit, equity on shares, stock value, and return on assets (Al-Tit, 2017). The non-financial measure is also referred to as the subjective or perceptive view of performance. This measure allows for assessment of performance base on perception or individual knowledge of the events over a period. Examples of the non-financial are subjective view on profit, customer's satisfaction, employees' turnover, sales growth among others (Darwish & Singh, 2013).

Further, the non-financial measure of performance has been justified for use in research because some exceptional activities and advancement in an organisation are not easily quantifiable numerically, rather they portray the organisation and offer significance to its different tasks and when there are no access to accounting data, the non-financial measure of performance remains the most suitable measure (Lumpkin & Lichtenstein, 2005). Therefore, given most of the manufacturing firms in FCT do not have published financial reports of their

performance, this study would thus, assess corporate entrepreneurship effect on performance using a subjective composite index measure of profit.

1.2 Statement of Problem

The manufacturing industry has been a pillar of economic development for most developed economies. The industry has through technology been a major driver of globalisation that has led some third world economies such as Malaysia, China and Singapore to record an impressive global presence as emerging economies competing with the developed economies in terms of market share and global presence (Covin & Miller, 2014).

In Nigeria, the manufacturing industry has merely been struggling and currently at its lowest ebb, despite diverse government programmes aimed at repositioning the sector. For instance, the adoption of import-substitution policy between 1962 and 1968 that was targeted at ensuring drop in import and encourage producing locally (CBN, 2003). The consolidation of import-substitution industrialisation strategy during the second national development plan (1970-74), the government stabilisation policy drive in 1982, the 1984 currency exchange control and restrictive monetary policy, all proved abortive.

Further, manufacturing sector contribution to GDP has declined steadily, evident with the purchasing manufacturing index generally contracting below 50 points for the last three years, the worst the sector has ever experienced in a decade (CBN, 2016). It is coupled with winding-up of over a hundred firms in the last five years (MAN, 2017).

In addition, the obvious weak demand and appetite for locally produced goods couple with low market for export remains a major challenge despite government effort to improve patronage and encourage export, as the sector is bedevilled with a high preference for foreign goods. Also, the sector has not been able to record an impressive performance in the local sourcing of raw materials despite various incentives given by the government, thus making it

necessary to find out the extent organisational innovativeness, risk-taking, proactiveness and management support would influence the profitability of the sector, as a consequence of corporate entrepreneurship strategies.

There are several studies on corporate entrepreneurship and manufacturing firms performance (Zahra & Covin, 1995; Dess & Lumpkin, 2015; Yang et al., 2007; Oghojafor, Kuye & Sulaimon, 2016). However, it is observed that assessing corporate entrepreneurship effect on performance has been from a top-bottom approach (Covin & Miller, 2014; Kuratko & Audretsch, 2013), as limited studies most especially not in Nigeria have considered assessing corporate entrepreneurship effect on performance from a bottom-top approach (Kuratko & Audretsch, 2013). This study seeks to close this gap.

1.3 Research Questions

The following questions served as a cursory guide to provide solutions to the problem statement.

i. To what extent does manufacturing firms' proactiveness affect their profitability?

ii. How does management support influence the profitability of manufacturing firms?

iii. To what extent does manufacturing firms' innovativeness influence their profitability?

iv. To what extent does risk-taking affect the profitability of manufacturing firms?

1.4 Objectives of the Study

Broadly, the study is set to ascertain effect of corporate entrepreneurship on performance of selected manufacturing firms in FCT. However, specifically the study sets to:

i. assess the effect of proactiveness on the profitability of manufacturing firms in FCT,

ii. determine the effect of management support on the profitability of manufacturing firms in FCT,

iii. identify the effect of innovativeness on the profitability of manufacturing firms in FCT;

iv. determine the effect of risk-taking on the profitability of manufacturing firms in FCT.

1.6 Statement of Hypotheses

The following hypothesis was formulated and tested be tested.

H_{o1}: Proactiveness has no significant effect on profitability of Manufacturing firms in FCT.

H_{o2}: Management support has no significant effect on profitability of manufacturing firms in FCT.

H_{o3}: Innovativeness has no significant effect on profitability of manufacturing firms in FCT.

H_{o4}: Risk taking has no significant effect on the profitability of manufacturing firms in FCT.

1.6 Significance of the Study

Manufacturing firms are first among the major beneficiary of this study. The study provides them with a quantitative research position, thereby given them a balanced perspective on adopting corporate entrepreneurship in enhancing their operational activities. The study provides manufacturing firms with the immediate and remote tool for ensuring increased competitive advantage through the analysis of the proxies of corporate entrepreneurship to identify their unique contribution to explaining improved performance.

The government in its effort to revamp the manufacturing industry is offered an excellent opportunity, as its effort to ensure sustained growth in the economy through manufacturing

firms activities can be attained with the application of the result of the findings of the study. The growth process and projection can be better achieved through encouraging corporate entrepreneurship in manufacturing firms in the country.

Further, the study is of immense contribution to both the employer and the employees of manufacturing firms, as it allows managers to understand the strength of their employees, tap from the opportunities and save cost. The study also brings to bear the knowledge of investing in organisational resources appropriately in line with organisational goals and objectives. Employees are empowered through corporate entrepreneurship as it avails them cognitive development opportunities, thereby empowering them in decision making and building capacity for succession.

The stakeholders in the industry such as the manufacturers association of Nigeria (MAN) will also benefit from this research, as the research findings and recommendations if applied will guide it members to understand the areas that requires increased attention and to enhance their profits and general performance. Finally, attempt would be made to contribute to the growing literature on the constructs of the study and as such, the study can be used as a source of bibliographical reference for future study.

1.7 Scope of the Study

The study covers the effect of corporate entrepreneurship on the performance of selected manufacturing firms in FCT. Thus, the study covers innovativeness, proactiveness, risk taking and management support as dimensions of corporate entrepreneurship. The selection of the manufacturing firms was based on the size of their operation and their membership with the manufacturers association of Nigeria (MAN), which is the umbrella body of all manufacturing firms in Nigeria. The study covered 2018 – 2019 when data was collected for the study. FCT in this study covers the entire manufacturing firms in Federal Capital territory.

1.8 Operational Definition

Corporate Entrepreneurship

This concept is used in this study as deliberate organisation-wide set of actions centred on identifying, pursuing and taking advantage of opportunities, creating new variation of products/brands, or designing new models for organisations sustenance.

Firms Performance

It is the expected outcome from the engaging in economic activities over a period. In this study performance is the subjective assessment of the outlook of the firm over a period based on the expectations of the managers and employees in the organisation.

Innovation

In this study, innovation is used as the organisations attempt to conceptualise, develop and sell new products or services to any market.

Proactiveness

Proactiveness denotes a forward-looking response to opportunities in a market. A proactive firm as one that is more focused on futuristic strategic planning rather than counter responses to the activities of other firms.

Risk Taking

Risk-taking in the study is the process of making decisions and implementing such decision, despite not immediately knowing the possible outcome and resources required.

Management Support

Management support in this study implies the inclination of managers or their effort at easing and promoting actions that are entrepreneurial in the organisation. Management support implies an organization's conscious, continuous, and willing effort to facilitate and promote entrepreneurial behaviour and activities by providing required resources.

CHAPTER TWO

LITERATURE REVIEW

2.1. Conceptual framework

2.1.1. Corporate Entrepreneurship

The concept of corporate entrepreneurship has its foundation from the concept of entrepreneurship (Schrage, 2017). It is simply the organisation's way of applying the basis of entrepreneurship practices in all sectors of the organisation. In the opinion of Moige, Mukulu, and Orwa, (2016) corporate entrepreneurship (also known as organizational entrepreneurship or entrepreneurship activity) is the organisations attempt at engendering, emerging and implementing varying new concepts and behaviours in the company.

Zahra (1995) viewed corporate entrepreneurship as the sum of a company's innovation, renewal and venturing efforts. Organisations engaged in corporate entrepreneurship are hypothesized to have four main proxies that are innovation, management support, risk-taking, and proactiveness (Covin & Slevin 1991). May (2016) defined corporate entrepreneurship as the advancement of new thoughts and ideas, which invariably prompts increased productivity or the vital recharging of the business towards meeting its defined goals.

Similarly, Wolcott and Lippitz (2007) opined that it is the means through which organised individuals in the form of groups or teams within an organization develop and implement new ideas for the management of another business that is different from the main firm in order to gain leverage from its assets, position, and other available capabilities. They also opined that it involves operating and managing new businesses for the organisation through effective utilisation of their resources (Wolcott & Lippitz, 2007). However, Lumpkin and Dess (1996)

identified four dimensions, which are proactiveness, innovativeness, risk-taking, and management support.

Conversely, Audretsch (2012) indicated that corporate entrepreneurship has two major dimensions, which are the organisation's ability to identify or create an opportunity, and the ability to exploit such opportunity to their advantage. These are opportunities that are exploited by firms, in turn, converted, and implemented to gain competitive advantage (Wiklund & Shepherd, 2011). The exploitation of current opportunities should be done concurrently with further search for more opportunities. (Ireland & Webb, 2009). This means that firms should not just rely on one opportunity but should also endeavour to search for new ones.

Corporate entrepreneurship is a critical factor for firms to be successful in today's business environment (Carrier, 1996). It involves efforts at changing things within the existing structure of the organisation (Zahra, 1995). Corporate entrepreneurship is a process of organisational change within established firms, which involves revolution and restructuring of internal entrepreneurial processes (Covin & Miles, 1999; Sharma & Chrisman, 1999).

In a dynamic market, one available opportunity is not a guarantee for success. Organisations must thus continue to create more ideas, exploit more opportunities, and devise new means of achieving their goals. Focusing on one opportunity or idea for too long will do a lot of damage to a firm when that opportunity is not as profitable as it used to be or becomes obsolete (Audretsch, 2012).

Furthermore, the practice of corporate entrepreneurship is not extremely important for large companies alone but small businesses that are normally exposed to risk-taking. They are required to innovate, direct managers and team leaders towards an increased level of corporate enterprising, and also setting the stage for leadership continuity as a major

organizational advantage (May, 2016). This will allow them undertake new businesses and projects on larger risks, which will help to boost their competitiveness in the marketplace.

The successful search for new approach that stems from differences in global market information, and through the exploitation of these differences, organisations are able to obtain benefits (Müge, 2014). To continuously identify and exploit profitable opportunities, firms must have an entrepreneurial orientation (Lumpkin & Dess, 1996) and must be prepared towards risks, be innovative and proactive with the right management support (May, 2016). The overreaching benefit for doing this is overall improvement in all indices of performance (Antoncic & Hisrich, 2001).

Stark (2016) identified three major benefits of corporate entrepreneurship which are productivity and performance, resource availability, and rejuvenation. Another benefit of corporate entrepreneurship is that individuals benefit greatly when they come up with new ideas and identify profitable opportunities for the organisation, as the associating pay with performance significantly helps to improve the performance of individuals in an organization. The availability of resources is a characteristic more dominant in well established firms that can easily pull resources together through shareholders and other external stakeholders or through the establishment of entrepreneurship networks to pull ideas together in order to exploit profitable opportunities.

A company that is anchored on corporate entrepreneurship should be able to absorb risks (Peltola, 2014) and thus, the failure of a product in its market place will not necessarily spell doom for such company. This is because well established companies that engage in corporate entrepreneurship have their cash cows available, those products that bring in a high and steady volume of income. This means there are still available funds at the disposal of the

company to invest in new ideas that will bring in profit. It is however evident that corporate entrepreneurship is more beneficial to already established companies than to start-ups.

2.1.2. Forms of corporate entrepreneurship

A distinction has been made on the varying forms of corporate entrepreneurship in an organization (Sumo, 2010). Sumo, (2010) state that the major forms are corporate venturing, organizational renewal, and creativity. This study covers organisations renewal and creativity.

(a). **Corporate Venturing:** – This involves having a fresh set-up either within a corporation or a distinct idea from what the organisations are engaged in at the moment. (Sumo, 2010). Small teams usually are the ones that engage in corporate venturing in the organisation through management support to provide new and inspiring ways to meet market demands or capture new markets for the organisation (Covin & Miles, 1999).

(b). **Organizational renewal** – This deals with the various ways organizations adopt better ways of allocating organizational resources with the attempt to improve the overall outlook of the firm over a period (Sumo, 2010). Thus, renewal in the organisation should involve doing things quite differently.

(c). Creativity – this is a multistage process through which organizations generate new ideas on products, services and processes to advance and differentiate themselves in order to be successful in their market. Thus, creativity should not be all about new product, as it can take varying forms (Tirmizi, 2017). Considerably, a new approach to the competition for organisations in the industry is what is involved, as there is no difference in things done, though they could be together in the same firms (Covin & Miles, 1999). Similarly, Stopford and Baden-Fuller, (1994) held that there should be attempt to view them from varying segments. Understanding, the required approach that organisation uses to approach innovation should be borne from the need to better accelerate things. Hence, there should be effort at

ensuring that creativity is existing and follows a predefined method that supports increased innovation in the organisation.

Other forms of corporate entrepreneurship as stated by Sumo (2010) include systemic restructuring that allows for overhauling of the organisation through a defined renewal approach, redefinition of the business operation and management of the human resources in the organisation through sustained regeneration.

2.1.3 Factors Relating to Corporate Entrepreneurship

Adonisi (2003) identified from previous literature, three major factors that are related to corporate entrepreneurship. They are:

1. The Individual - Individuals have the tendency to act as an entrepreneur, possibly due to motivation as a function of the individual's frame of mind or place of work (Birkinshaw, 1999).

2. The Organization - organisation involves a predefined shared design that shapes behaviours, refines the entire elements that comprises the system and provide a location for work accomplishment that are within the confines of the top management. Such external motivation that an organization may provide such as rewards, access to financial resources, and other important relationships may induce more strengthened corporate entrepreneurial behaviour in an individual.

3. The Environment – The factors external to an organization affect the behaviour of the individuals in such an organization. Such factors may include competitors, customers, suppliers, and institutional bodies with which the organisation interacts (Adonisi, 2003).

2.1.4 Dimensions of corporate entrepreneurship

The concept of corporate entrepreneurship has been operationalised in various forms depending on the researcher's environment and the context of interest of the study. However, extant literature has shown that innovation, risk-taking, proactiveness and management support are the most commonly used dimensions of corporate entrepreneurship (Lumpkin & Dess, 1996; Covin & Miller, 2013; Zemplinerová & Hromádková, 2012).

2.1.4.1 Innovation

The term innovation comes from the Latin word “innovare” meaning to make something new (Tuan et al. 2016). In the view of Freeman (1998) innovation is an action phased process that supports knowledge acquisition from the direct and indirect set of experience from the organisations identification, design and marketing of new products and ensuring increased effort to acquire understanding of customers’ needs and managing suppliers.

Similarly, Waheed (2011) held that innovation encompasses an organisations willingness and ability to identify, develop and offer products or services, from concept to actualisation to a given market. Innovativeness has become a major determinant used to describe the essence and outcomes of entrepreneurial behaviour (Lumpkin & Dess, 1996; Covin & Miller, 2013). Actualising expansion in a business operation and sustaining their existence is best achieved using innovation, as it encompasses a detailed process that originates from the shared philosophy and values that drive the corporate existence of a business enterprises, and their ancillary operations (Zemplinerová & Hromádková, 2012).

Consequently, companies must learn how to focus more not just on innovative people, rather innovative processes that can create and sustain lasting innovation (Koulopoulos, 2009). Organizations must learn to constantly innovate in line with dynamic customer demands and

preferences, also to exploit technological opportunities and changing market structures (Tirmizi, 2017).

However, it has become imminent to state that most businesses believe that innovation is best done as an inventor that is, being the first to enter a market with a new product. Conversely, Lichtenthaler (2012) was of the opinion that the imitation of other firm's inventions can also have great benefits, and even though an imitator enters a given market after the inventor, the research development (R&D) costs involved will be lower than that of the inventor. In addition, the imitator will be able to capitalize on any faults or deficiencies that the inventor's product may have (Waheed, 2011).

Cohen and Levinthal (1990) noted that the cost expended on research and development (R&D) were expected to directly translate into innovation activities of the firm and its ability to grasp external knowledge, which would help improve productivity and processes. However, Zemplinerová and Hromádková (2012) opined that such spending on R&D cannot be successfully used as a measure of innovation output because not all R&D investments lead to successful innovation. As such, the process of innovation is better broken down into the different phases of R&D investment decision and innovation output measured in productivity and growth.

Innovative work often requires dealing with complexity and ambiguity (Timrizi, 2017). It is precisely why a leader's expertise and creative problem solving competencies will be crucial. However, there are times where depending on the team or unit's own expertise and the lack of technical expertise in a leader, it may demand that is delegated to experts or creative problem solvers in a team (Carrier, 1996).

2.1.4.1.1 Forms of Innovation

There are varying forms of innovations particularly when firms adopt new production processes and/or introduce changes or improvements in production processes and operating facilities, marketing and business strategies to make themselves more competitive (Lopez, 2015). Lopez (2015) identified four forms of innovation, which are:

i. Architectural innovation
ii. Radical innovation
iii. Incremental innovation
iv. Disruptive innovation

Architectural innovation- This is the process through which business uses the knowledge and skill that has been previously applied in a market and applies it in a new market place. With the help of a receptive market, it is not difficult to attract and retain a large part of the market with architectural innovation. The risk associated with architectural innovation is usually low because already tested and proven technology is what is adapted to suit the new market.

Radical innovation- This is the complete rebirth of a new industry (Lopez, 2015) and is simply the entry into a new market with new technology, skill and experience.

Incremental innovation- This deals with the use of already existing technology or resources to increase customer value in an already existing market. In the words of Leifer (2000), it is the process of cutting costs or improving the features of existing products or services. It can also be defined as various little improvements made to an existing product or product line that helps such product to remain in competitive demand for a longer period. Hence, companies that are not willing to create an entirely new product and still want their product(s) to remain ahead of the competition in their respective markets can engage in incremental innovation. It

will also help to prolong the market life of a product while sustaining its competitiveness. Factors that may influence how feasible incremental innovation can include the ability to maintain a steady flow of products to the market with a forecasted demand, the number of changes in existing technology, and experience.

Disruptive innovation- This is the application of new technology or ideas to a current market in which a company exists. This form of innovation is usually more difficult to implement as it may be more expensive and may not be aesthetically pleasing as a new innovation in a new market.

2.1.4.1.2 Factors influencing Innovation in an Organisation

Vieites and Calvo (2011) identified some contingent factors that can affect innovation. They are as follows;

1. **Human and Organizational Resources**

This includes personnel, reputation, goodwill, management, and any other assets the company can leverage on for developing innovative processes. They asserted that human and organizational resources of a company directly affect its ability to innovate. In numerous works, the authors include variables related to personnel dedicated to R&D and other organisational issues: centralization, specialization, formalization or related to the development of human resources (Vieites & Calvo, 2011).

2. **Financial resources**

The level of expenditure a firm is willing to incur for innovation activities is a major determinant of the level of innovation such firm will engage in. Business funds, corporate capital and other financial assets can be categorized as the financial resources of a firm.

3. Collaboration with other agents

The level of collaboration between firms can help increase the scale of innovation, as it gives the benefit of economies of scale once two or more firms pull resources together. In addition, there is a significant improvement in such innovation due to exchange in learning by both firms and also prevents duplication of efforts by individual firms.

4. Technological resources

Technology is the hallmark of most innovations in modern day firms. The benefits of the application of scientific methods to firms daily activities and processes are immense, hence the need for technological knowledge to engage in innovation. Vieites and Calvo (2011) categorised the role of technological resources into four variables, which are the acquisition of new technological equipment to support innovation, acquisition of external technological knowledge, production preparation and commercialization preparation.

5. **Information and Knowledge Management**

Modern day firms cannot afford to take decisions that are not properly informed, and this also applies to the undertaking of innovation activities. Market trends, customer preferences, prevailing technologies and so many other variables must be well understood relating to what competitors are using and what would be the best action to take. Vieites and Calvo (2011) in their study, measured information and knowledge with variables such as the use of internal information, the use of market related sources of information (clients, providers and competitors) and other sources of information (scientific reviews, industrial associations, conferences, etc.).

2.1.4.1.3 Benefits of Innovation

For decades, innovation has been constantly linked with a competitive advantage as one of its major benefits. Innovation has been recognised as an essential source of sustained competitive advantage for organisations for a long time (Covin & Slevin, 2002). The relative advantage of innovation goes a long way in determining whether it will be successful or not (Vieites & Calvo, 2011) and it gives the firm leverage through first mover advantage (benefit of being the first to introduce a new product, process, etc.) when getting an enormous level of market acceptance. Proper development of product and process innovation also helps in increasing the overall capacity of the firm and lead to a sustainable growth for competitive advantage.

A major reason economic growth takes place by virtue of innovation is that firms upgrade what they produce and convert their current products into the new and improved product to perform similar functions. A study shows that product innovation is a very effective way, if not the most effective, of expanding any market (Lichtenthaler, 2012). The general benefit of innovation is not diminishing but rather its continuous use in society has great benefits as the usefulness of an invention by one person does not decrease when used by others (Vieites & Calvo 2011).

2.1.4.2 Proactiveness

Proactiveness denotes a forward-looking response to opportunities available or inherent within a business scope (Lumpkin & Dess, 2001). Kokemuller (2017) held that it is more focused on futuristic strategic planning rather than counter responses to the activities of other firms. As such, a proactive company must always be forward thinking and should be able to anticipate the future actions of its competitors before them and also act in such a way that will ensure that it is always ahead of others in the industry. To Mohr and Sarin (2009),

proactiveness refers to a company's capacity to perform better to competitors in introducing new products, services, or technologies to the market.

Bateman and Crant (2009) saw proactiveness as the ability to change things, in a planned direction, to achieve positive and better results. To them, it is what differentiates an individual or firm from others. Parker, Williams, and Turner (2006) defined proactiveness as carrying out actions that are initiated by the individual or firm itself and geared towards the future to change and improve an existing situation. Crant (2000) opined that proactiveness is the process of taking a bold step to improve current situations, challenging present circumstances instead of just leaving them the way they are.

Bass (2008) stated that a proactive perspective is directed towards a future sets of events instead of retorting to the consequences of the actions that have already taken place and some cases would have been detrimental to the operational existence of the organisation. As such, smart organisations tend to regularly initiate change. Proactivness is popularly associated with change (Bass, 2008; Parker, 2010).

There are diverse actions that people or businesses can undertake to initiate change but not all of such activities are proactive in nature (Bateman & Crant, 2009). According to the three-category classification of people made by Bernard Shaw, proactive people are under the class of those who make things happen. Generally, constantly changing environments act to create many new opportunities for firms, and proactive strategies can be effectively employed in order to seize such opportunities and to gain a competitive advantage for the firm (Zahra, 1995).

Proactive behaviour enables organisations to anticipate changes and needs in the market and to be the first to act on them. Proactive firms introduce new trends to the market by actively

shaping the demand, not merely reacting to it. Parker (2010) identified three pertinent features of proactiveness. They are

i) It is change-oriented: Firms learn how to take control over the current situation and future outcomes, and also initiating future occurrences rather than adapting to situations or events as they occur.

ii) It is self-initiated: Future occurrences take place as the individual or firm wants it to happen, not just adapting to it as it occurs. For example, a top management staff that has requested for information on sales revenue may not just wait till such information is brought to his/her desk but can make an extra effort by meeting the necessary personnel to collect such information. Proactiveness requires an individual or firm to act with intuition, not just by following instructions.

iii) It is anticipatory: Proactiveness demands action in advance of a future situation, not a response to a situation that has already occurred.

2.1.4.2.1 Implementing Proactiveness in firms

Bateman and Crant (2009) in their study of proactive behaviour, interviewed a sample of proactive business individuals operating as entrepreneurs and company presidents in North America, Central Europe, and Southeast Asia. Some of the activities that they engage in as regards proactiveness in their various firms include the following:

1. Scan for change opportunities. Modern day firms are always looking for new opportunities to expand and grow their business. They must constantly search their environment for new ideas and exploit them before their competitor does.

2. Set effective, change-oriented goals. Firms over time have learnt to set objectives that are actually achievable, realistic, and really puts the firm where it wants to be. In addition, the firm must aim for a position much higher than that of competitors. Firms have learned to set

visions higher than others and focus on accomplishing goals that have a real and positive impact on others.

3. Anticipate and prevent problems. Firms evaluate the many circumstances that can lead to different situations and prevent circumstances that have negative outcomes. Looking at a situation from many angles, managers, and entrepreneurs must understand the various ways that a situation can go wrong and lead to major problems. It is, therefore, their responsibility to avert such problems to the best of their ability.

4. Do different things, or do things differently. Proactive firms are known to be unique simply because they do things differently from others. In business, following the crowd is not always a good idea. Since customers are looking for businesses that give them something new or extra, firms must develop their Unique Selling Point (USP) and ensure that they are either giving the public something entirely different, or a similar product but with a different design.

5. Take action. Knowing the various steps to take to be proactive would be useless if they are not put into practice. So many entrepreneurs in the study of Bateman and Crant (2009) from all indications, learned by doing, not by watching others act first. They willingly embraced the uncertainties that came along with being pioneers of various ideas.

6. Persevere. "Proactive people persist in their efforts" (Bateman & Crant, 2009:64). Obstacles do not take them off course, and an indication of a closed opportunity does not turn them away from their goals. Proactive firms must always keep pushing for what they want to achieve and should not stop until they see it become a reality. Perseverance deals with effort, even if it means changing the tactics from time to time, as long as it eventually works.

7. Achieve results. The ultimate of trying something new through anticipation is that you achieve results, positive results. The hard truth about the business world is that proactiveness may not lead to positive results in the first try, even for a short period. Most leading brands

today in the testimony often state that the beginning was not easy, as in most cases it is not easy to try something new, as there are many risks involved. Nevertheless, with a good business idea, adequate resources, and effective management, positive results will eventually be achieved.

2.1.4.2.2 Benefits of proactiveness in firms

Essential to the organisation is its strategic planning. Proactiveness allows a firm to engage in strategic planning. Kokemuller (2017) stated that proactiveness allows the organisation to plan strategically; predicting the future, identify opportunities, and threats. Managers of proactive firms learn over time to develop a broader and holistic perspective of the firm, concurrently evaluating the firm's current position and events alongside futuristic goals and outcomes (Kokemuller, 2017). By being proactive, companies learn to make useful projections and estimations through analysis since is it practically impossible to precisely and accurately predict the exact future outcome of an event (Kokemuller, 2017).

In terms of opportunities, proactive firms learn to focus more on where their strengths lies and capitalize on them. High availability of needed resources, a proper understanding of market preferences and technological availability are few examples of opportunities that a firm can use to grow. Such opportunities must be taken while they are still available. Firms must also learn to embrace then face their threats, as it will do no good pretending that they are not there. As Kokemuller (2017) put it, economic, environmental, and regulatory threats can greatly harm or erase the existence of a product or company if such refuses to be proactive. A major reason why the Coca-Cola brand has an alternative Diet Coke to the normal Coke drink is the potential damage of excess sugar and how most people today are becoming more conscious of their sugar intake and what foods or drinks contain more sugar.

Bateman and Crant (2009) also identified some benefits of proactive behaviour such as enhancement of job performance especially among sales personnel, positive influence on how people are perceived by others, improved leadership qualities. At the strategic level in a firm, benefits can be an increase or improvement in the number and frequency of introductions of new products, services, and processes, the number of resources devoted to innovation, and for how long such firm can retain or boost its position in the industry.

2.1.4.3 Risk taking

Many scholars have attempted to define risk-taking in entrepreneurship literature (Brockhaus, 1980; Forlani & Mullins, 2000; Danso, Adomako, & Ofori-Damoah, 2016). Mohr and Sarin (2009) defined risk-taking as the process of making decisions and implementing such decision without regard to the resources currently controlled or knowledge of possible outcomes. It is believed that a major individual characteristic that is required to support corporate entrepreneurship is the willingness to take moderate and calculated risks (Turro, 2016; Kuratko, Hornsby, & Covin, 2014). Risk propensity can be understood as the entrepreneur's general likelihood of behaving more or less in a risky manner and how entrepreneurs evaluate the risk-return trade-off (Sitkin & Pablo, 1992).

In the view of Wang, Xu, Zhang, and Chen (2016) risk-taking propensity is the decision maker's attitude, which can be aimed at seeking risks or averting them. Firms often contribute a large number of resources into high-risk ventures believing it will yield high returns, by seizing opportunities in technological advancement and through the introduction of new products into new markets. As Dess and Lumpkin (2005) stated, firms usually have to take on riskier alternatives to be successful in corporate entrepreneurship, possibly forgoing former methods or processes that have been used in the past.

Consequently, Birkinshaw (1999) opined that entrepreneurship goes far beyond innovation and should also focus on the creation of an inclination or favourable attitude towards proactive risk taking and the proper use of available resources to achieve future objectives. Risk taking propensity and uncertainty play an important role in corporate entrepreneurial behaviour of an organisation, (Lammers, Willerbrands, & Hartog, 2010) and is closely linked to the purpose of understanding and predicting economic behaviour (Danso, Adomako, & Ofori-Damoah, 2016). Risk propensity is an integral part of entrepreneurship and must be fully embraced, as entrepreneurship itself is a risk (Sarigumba, 2017).

Entrepreneurs learn from failures – Even though an entrepreneur or a firm takes time to learn from the mistakes of other businesses when undergoing a risky venture, in most cases, they are still bound to make some mistakes that may lead to the failure of their initial idea. Good entrepreneurs learn to capitalize on such failures and develop more ideas that are bulletproof (Sarigumba, 2017).

There is less competition for risk taking firms, as businesses that try new things no longer fall among the category of the many businesses that deliver the same value to customers and are constantly struggling for a larger market share (Lammers et al, 2010). Risk taking pushes firms to higher levels and makes them achieve much more than other non-risk taking firms can (Birkinshaw, 1999).

An entrepreneur must take risks to establish a business venture (Danso, Adomako, & Ofori-Damoah, 2016) and the propensity to take risks is pre-dispositional and not simply a situational variable (Danso, et al., 2016). Thus, there must be the risk consciousness that supports risk taking as a foundational approach to surviving and building long lasting business enterprises that can withstand the test of time, as risk taking allows the business know their strength and weakness and possible areas of improvement (Turro, 2016).

2.1.4.4. Management support

Researchers in past literature has acknowledged the importance of middle managers in enhancing and cultivating self-sufficient and autonomous behaviours and thereby fostering corporate entrepreneurship (Hornsby, Kuratko, & Zahra, 2002; Floyd & Woolridge, 1992, Ginsberg & Hay, 1994). It has also been stated, however, that the exact role these middle managers play in fostering corporate entrepreneurship is not precise (Hornsby, Kuratko, & Zahra, 2002). Bower (1970) was a pioneer in studies linking middle managers as agents of change to corporate entrepreneurship. Many authors (Gisemba et al., 2015; Hornsby, et al., 2002; Baskaran, 2017) have discussed different aspects of middle managers' contributions to entrepreneurship. Other literature (Schuler, 1986; Woolridge and Floyd, 1990) examined the contributions of middle managers to a firm's strategy, a dimension closely connected to corporate entrepreneurship (Zahra, 1995).

Management support also deals with how eager the senior management of an organization may be towards facilitating and promoting entrepreneurial activities, demonstrated through championing innovative ideas as well as providing necessary resources expertise and protection (Gisemba, et al, 2015).

Management support indicates the willingness of managers to ease and promote entrepreneurial activity in the firm (Damanpour, 1991; Pearce, Kramer, & Robbins, 1997). Management support is an organization's conscious, continuous, and willing effort to facilitate and promote entrepreneurial behaviour and activities by providing required resources (Mohammad & Amir 2013). Management can assist in supporting new and innovative ideas, making available needed resources to embark on new ventures, and even concretely establishing and integrating the entrepreneurial activity within the firm's system and processes (Hornsby, et al, 2002).

Succinctly, entrepreneurial activities in a firm may not necessarily produce an expected outcome itself without an organization's intervention (Baskaran, 2017). Thus, the culture of entrepreneurship should not be left for only employees to practice but should be embraced by the entire firm because the leaders in an organization have a vital role to play in any new venture or project that a firm can embark on to achieve positive results. Pearce et al., (1997) and Morris, Kuratko, and Covin (2008) stated that management support has a significant role to play in order to facilitate and promote entrepreneurial initiatives within the organizations. Employees will become more motivated and willing to imbibe the culture of entrepreneurship when they know that their managers have their full support.

Further, Hitt and Vaidyanath (2002) were of the opinion that in order for the organization to succeed, managers who also constitute to the management team at all organizational levels should play critical strategic roles in fulfilling organizational objectives. The provision of resources that an employee requires to initiate entrepreneurial actions is a major part of management support (Kuratko, Ireland, Covin, & Hornsby, 2005). Management support has been found to be beneficial in pushing an organizations workforce to achieve corporate goals when top managers pay interest to employees' ideas and identification of profitable opportunities (Morris, Kuratko, & Covin, 2011). This view is also the stance of Merrifield (1993) whose study showed that top management support and involvement have a positive influence in initiating entrepreneurial behaviour among employees.

Organizational support, commitment, and the staffing and rewards are other areas of support that can be extended by management in initiating and sustaining corporate entrepreneurship behaviour within the organization (Zahra, 1993). The board support can likewise take different structures, for example, giving required and sufficient assets and skill, taking lead in advocating creative thoughts, preparing and remunerating representatives, and setting up techniques for managing new thoughts. Furthermore, it the support can be preparing chances

to distinguish openings in systematizing the pioneering outlook among the workers as well as inside the organisation's framework and procedures (Baskaran, 2017; Zahra, 1993).

2.1.4.4.1 Forms of management support towards corporate entrepreneurship in organizations

Villiers-Scheepers (2012) stated that management support for corporate entrepreneurship can be given in many ways, but most importantly entails spearheading and supporting innovative processes and concretely establishing entrepreneurial activity within the firm's system and processes. The various forms of management support towards corporate entrepreneurship in organizations are stated below.

(a) Financial incentives: Risk, effort and financial utility are three major aims of financial incentives. The risks of embarking on a new project should not be more than the possible benefit to be gained from success. Such risks include disciplinary action or pay reductions encountered by the corporate entrepreneur should not exceed the chances of success. Management should also endeavour to provide significant financial support, for example, taking a role in a new venture or project (Antoncic & Hisrich, 2004).

(b) Trust instilled by management: Management should ensure that there is a free atmosphere for employees to be innovative and develop new ideas and identify opportunities in the workplace. Employees will sustain a stronger spirit of corporate entrepreneurship when they know that innovative ideas brought to the table of managers will be given consideration and support when needed. Lack of trust on the part of management may lead to lack of motivation of employees and unwillingness to develop creative ideas.

(c) Managerial support for training & learning: Monsen, Patzelt, and Saxton (2010) stated that training is a vital part of management support in corporate entrepreneurship because it helps equip employees with the knowledge and other skills required to innovate. Knowledge

management is crucial for corporate entrepreneurship, and the adeptness and proficiency of workers should be expedited and rewarded (Wang, 2005; Martin-Rojas, Garcia-Morales & Garcia Sanchez, 2011). Effective management of knowledge helps organizations and its workers to easily accumulate and have access to information, further fostering idea generation and innovation (Villiers-Scheepers, 2012). Managers should, therefore, never compromise on the availability and accessibility of useful information and the importance of continuous learning to enhance knowledge in an organization.

(d) Management style & actions: Lee, di Domenico and Saunders (2014) asserted that an overbearing and strict management is more likely to obtain counter-productive results from employees, whereas a freer and experimental environment is more likely to favour the achievement of corporate entrepreneurship by employees. Managers should focus more on building traits such as interpersonal relationships with employees, provision of resources for experimental projects/ventures, and assisting in handling challenges that employees may face in implementing creative ideas (Batson & Yoder, 2012). Managers must also understand and take into consideration the psychological difference between a goal driven manager and an effectual and logical thinking entrepreneur (Duening, Shepherd & Czaplewski, 2014). This will help managers understand the actions of entrepreneur subordinates and support their style of thinking and developing new ideas, thus fostering intrapreneurship in the firm.

(e) Supportive human relations management: The various ways through which management can support employees are through direct motivation, giving employees a degree of freedom and empowerment, coaching of subordinates, and other forms of support peculiar to various organizations (Batson & Yoder, 2012). Effective human resource management can greatly increase corporate entrepreneurship and innovation in an organization (Guo, 2014).

2.1.5. Performance of Manufacturing Firms

Performance as a concept in management has attracted diverse researches and arguments (Darwish & Singh, 2013; Guest, 2011). Cascio (2015) defined performance as the outcome from the expected goals and objectives outlined over a period. Similarly, Al-Tit (2017) stated that performance is the overall outcome that shows the actual goal attained in the organization over a period. In the manufacturing sector, performance has been said to be influenced by a number of factors. Al-Tit (2017) stated that some of the factors are enterprise risk management, the structure of organizations, the type of leader, innovation and management practices. This increasing factor makes it almost impossible to agree on the one best way to measure performance and this has been a course of research for a while in behavioural and social sciences literature.

However, Mafini and Pooe, (2013) stated that measuring industry based performance is quite different from a firm based. They stated that industry performance measurement incorporates the entirety of both the internal and external factors from a collective or collaborative perspective of the entire industry. Industry overall performance has been linked to most economic development and has contributed to the growth of nations (Tseng, 2016). This makes it critical that in measuring the performance there must be a systemic approach to understanding the underlying criteria that control the industry. In the firms, measurement performance is based on specific measurement and has often times been carried out on two varying dimensions, which are the financial and the non-financial measure.

In the view of Novak (2017), there are new dimensions of performance currently in business and financial studies. These concepts are economic value added by the organisation over a period, the market value added both in terms of the individual firm and as an industry, balance scorecard inclusive of the financial perspective, perception expressed by customer's, internal

process. The other measure includes the perspectives on learning and growth, human resource perceptions, output, shareholder's satisfaction, strategy and process alignment, operational performance, value creation and corporate vision.

Further, the financial measure is often referred as the objective measure and this involves the use of financial ratios such as return on assets, return on investments, sales growth, or level, and return on equity etc. However, this method has been described to be the most commonly used measure of performance (Sethibe & Steyn, 2016). Conversely, Frigo (2003), Tsao and Lien (2013) and Likar, Kopa, and Fatur, (2014) and Fernandez (2001) have all opined that the financial is basically accounting measures. They all agreed that these measures are a mere reflection of history; this is in terms of statements of income and balance sheets that explain certain year activities and the firm's assets and liabilities for a given period. Thus, lacking in creating and measuring value creation.

Furthermore, the non-financial measure referred to as the subjective or perceptive measure of performance, which is a reflective view of performance. This measure allows perception expressed to ultimately capture the true picture of performance over a period. Rizov and Croucher (2009) operationalized subjective performance to involve service quality, level of productivity, profitability, product-to-market time and rate of innovation. In addition, Ahmad (2012) stated that the subjective measure can be operationalised as the organisation's product leadership, quality of product and services, customer's intimacy and internal process efficiency.

Consequently, Singh, Darwish, and Potocnik, (2016) stated that whichever measure of performance that is adopted in a study it is at the interest or pleasure of the researcher. However, in the absence of an objective data, the subjective can be used most especially when performance is data difficult to obtain most especially when dealing with growing firms that

are not listed on a stock exchange or where the data cannot be trusted by the researcher for its accuracy (Singh et al. 2016).

In summary, sequel to the discussion outlined above, this study will adopt a subjective measure of performance, irrespective of the fact that a number of studies have not been well designed in this respect taking into cognizance the qualitative aspect of performance.

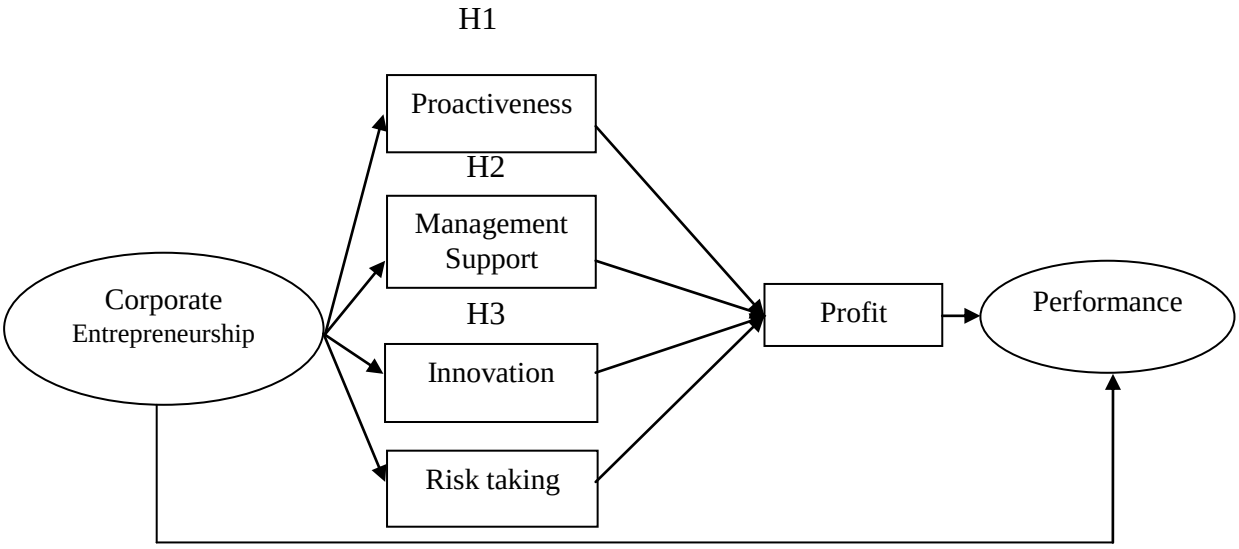

Fig. 1: Conceptual Model of Corporate Entrepreneurship and Performance of Manufacturing Firms

Source: Researcher's Conceptualisation, 2019

2.2. Empirical framework

This section covers previous empirical studies that are related to the study variables that are used in this study.

2.2.1 Proactiveness and manufacturing firms Performance

Parker, Williams, and Turner, (2006) modelled the workplace proactive behaviour. The study used a sample of 282 employees. The study used factor analysis and the results indicated that proactive personality is significantly associated with proactive work behaviour. The study was rather more interested on validating the instruments for identifying proactive behaviours, while this current study is an assessment of the constructs effect on performance.

In the study of Sascha Kraus, et al., (2012) had a similar result. The study was on entrepreneurial orientation and business performance. The study used proactive as a dimension of the study. The design was survey research. The sample were from 164 Dutch SMEs and the findings indicated that proactive had a significant influence on business performance most especially in turbulent periods. The result showed proactiveness impacts business performance. The study was limited to a single approach to the study and performance was measured using objective measures, which the results may not be the same when used with subjective measures, which this study intends to use.

Jaman (2016) study used a qualitative approach to assessing proactiveness as a proxy of corporate entrepreneurship. The study found that proactiveness of the employee's leads to improved organizational performance. The study relied on 25 interviews of middle-level managers in established manufacturing firms in Austria and the study did a content analysis and the result found that proactive support system in the organization provides the organization with the enabling environment to foster direction and create link process between operation process and system management for improved performance. The study used a qualitative approach, while this current study used a quantitative approach.

Similarly, Sylvia and Kalsom, (2013) assessed corporate entrepreneurial among organisations in Malaysia. The study constructs were moderated with hostile environment as a variable. The study sample was 130 and the study used partial least square regression for analysis of data.

The result indicated that proactiveness has a significant effect on firm performance. The study relied on the combination of both primary and secondary data as the dependent variable was measured using an average of the industry performance to the firm's performance. This method has been criticized as wrong as the time variance of data collection affects the quality of the data.

Also, Bromiley (2017) developed a causal model to test how past performance and other factors influence proactiveness and how proactiveness and other factors influence future performance (other factors included performance expectations and aspirations, slack, and industry performance). The study used a sample of 210 employees and regression was used for data analysis. Results showed that proactive appeared to increase poor performance, even when past performance, industry performance, and organizational slack were controlled. The study was carried out in a western context, the probability the result would be same here is slim given other internal and external factors that influences performance and proactiveness.

Furthermore, Gibb and Haar, (2010) study was on corporate entrepreneurship and performance. The study relied on sample data of 167 firms in New Zealand and the technique used was multiple regression technique. The study found that a higher proactive profile would lead to higher financial performance. The study was carried out in a developed clime, the likelihood of having the same result in Nigeria is slim given difference in development level. Further, the study did not use manufacturing firms as the case study, while this current study is using manufacturing firms for the study.

Similar to this study is the study of Wang and Yen, (2012). The study examined the influence of corporate entrepreneurship on the performance of SMEs in Taiwanese, China. The study indicated that proactiveness has a significant positive influence on the firm performance of SMEs. The study was carried out in China which is a more developed economy to Nigeria, as

such the finding may not be applicable to our system. Further, the author's focus was merely interested in measuring relationship, which does not fully explain impact or effect.

Conversely, the study of Rauch, Wiklund, Freese, and Lumpkin, (2004) was a meta-analysis on corporate entrepreneurship and business performance. The study found that proactiveness has no significant influence on firm performance. The authors were more concerned about the time value of proactive propensity investment instead of examining proactive propensity as a measure of corporate entrepreneurship. Further, the study was a meta-analysis.

In addition, Bruno (2015) focused on corporate entrepreneurship and performance. The study adopted an explanatory research design. The study used 55 commercial state corporations for the study. The data were analysed by use of means, percentages, and regression and correlation. The result showed causal relationship among the variables. Results indicated that proactiveness is a key determinants of firm performance for commercial state corporations in Kenya. This study was carried out in a government-owned establishment, which is different from the focus of this study that is interested in the manufacturing sector.

Taylor, (2013) examined the effect of corporate entrepreneurship on SMEs internationalization in Jamaica. The study used a sample of 200 SMEs and cluster analysis was used for the study. The research approach was the use of both a quantitative and qualitative approach to the study. The study found that SMEs proactive actions have a significant effect on performance in both the qualitative and quantitative results that were gathered for the study. The author failed to compare both results from the quantitative and qualitative methods adopted, which makes it an effort in futility, as the essence of the mixed method is to compare the findings and find areas of agreements and difference and make recommendations based on the findings. Further, the study dependent variable was SMEs

internationalization, which differs from this study that aims at manufacturing firms that are operating in Nigeria.

2.2.2 Management support and firms Performance

Baskaran (2017) assessed the role of management support in creating entrepreneurial orientation among employees in organizations. The study used a quantitative approach to web-based online survey to collect data. The population was estimated to be 300 and a response rate of 70.4 per cent was gotten. Three hypotheses were formulated testing entrepreneurial orientation dimensions. The data were analyzed with simple multiple regression using SPSS. The result indicated that management support tends to create innovativeness and also pro-activeness among employees, however, failed to provide evidence for a positive association between management support and risk taking propensity among employees. The study was carried out in a developed economy, which the finding may not apply in an emerging economy.

Schachtebeck and Nieuwenhuizen (2006) studied the role of management support in promoting corporate entrepreneurship within SME's in the sea freight transport industry in South Africa. This study adopted a quantitative survey technique in the sea freight transport sector as the major instrument for data collection. Data were analysed using one-way between-groups ANOVA. Results showed that managerial support for corporate entrepreneurship in the sampled SMEs is relatively low. In addition, when an SME increases in size, its level of management support for corporate entrepreneurship improves. The study was carried out in the transport industry, which is different from this study focus on the manufacturing industry. The study was also a comparative study that differs from this study.

Kamatigam (2017) study was primarily to explore how managers' support improves corporate entrepreneurship in the context of employee engagement and creativity in large firms. The researcher adopted a mixed method approach of qualitative and quantitative research designs. The research involved collecting both primary and secondary data. The quantitative data was in the form of innovation audits to grade the organisation on different dimensions regarding support for innovation and entrepreneurial activity. The qualitative data was in the form of recorded interviews during which the interviewee was asked about innovation and management support. In summary, findings indicated that corporate entrepreneurship driven by creativity and innovation existed in organisations where employees were highly supported, where bureaucracy was not a form of leadership, and where increased trust allowed employees to be innovative and creative. The study was not targeted at manufacturing firms in Nigeria, the study incorporated leadership style, which is not a variable in this study and it was used to moderate employee's engagement.

Bakar and Mahmood (2014) studied the relationship between corporate entrepreneurship and performance of academic leaders. It was also geared towards determining the mediating effect of management support on the relationship between transformational leadership and performance. A quantitative research design was used and a questionnaire survey was used to collect the data. A total of 246 usable responses were received from academic leaders from a sample of twenty public universities in Malaysia. The findings indicated significant and positive relationships between transformational management support and performance, and corporate entrepreneurship and performance. The study used the academic sector as the case study, while the current study was on the manufacturing sector, thus, differences in sector could be a factor to lead to variance in findings.

Further, the study of Oghojafor, Kuye, and Sulaimon (2016) on corporate entrepreneurship and firms' performance in the manufacturing sector in Nigeria found that indeed corporate

entrepreneurship (management support dimension) has a significant effect on performance. The study relied on data from 670 firms in Nigeria. The analysis of the data was subjected to regression and Z-test, as the authors compared the performance of firms that are practising corporate entrepreneurship (management support dimension) and those that are not. The result indicated that firms that have high corporate entrepreneurship drive have a better performance. The study was a comparative analysis between firms that practice CE and firms that do not, however, the criteria to identify firms that practices CE from firms that do not practice CE was not specified in the study.

2.2.3 Innovation and Manufacturing Firms Performance

The study of Moige, Mukulu, and Orwa (2016) assessed corporate entrepreneurship and performance. The study used innovation, creativity and management support as determinants of corporate entrepreneurship. Using a descriptive method, the study population comprised managers and employees in the food industries in Kenya and data was collected using questionnaires. Findings of the study indicated that the presence of clear policies and objectives in an organization supports such organizations performance. Also, the attachment of rewards to individual creativity and innovative potential promotes performance, and so does corporate entrepreneurship management. It is worthy to note that this study failed to subjects its data to rigorous empirical analysis, as the method is faulty and cannot be relied on for conclusion, given the use of descritptive tool that is not suitable for drawing inference.

Sumo (2010) studied the relationship between corporate entrepreneurship and organizational structure. The researcher was of the view that to make a firm invigorated and revitalized, it is essential that an organizations structure is one that encourages all employees to contribute ideas as well as their efforts towards the achievement of the firm’s goal. The study made use

of secondary data from previous scientific data. Findings indicate that in order to be able to create an environment suitable for corporate entrepreneurship, firms need to be innovative in designing their organizational structure. The study dependent variable was on organizational structure and not organizational performance. Further, the study was limited to secondary data, while the current study will adopt a primary data

Lwamba, Bwisa, and Sakwa (2014) explored the effect of corporate entrepreneurship on the performance of manufacturing firms in Kenya. The study adopted survey design and included 200 Kenyan manufacturing firms in the study selected through simple random sampling. The data were analysed using descriptive statistics and a correlation analysis. Results indicated innovation can lead to increase performance. Further, the study objective was to assess effect, however, the authors used correlation, which explains relationship and has nothing to do with an effect, thus, indicating a faulty technique of analysis.

Chigamba, Rungani, and Mudenda (2014) assessed corporate entrepreneurship on patronage of the tourism sector in South Africa. The study used convenience sampling technique for a sample of 140 employees. The technique adopted was correlation, and ANOVA. The results showed relationships exist between innovation and patronage. This study was carried out in the tourism industry, while this study is on the manufacturing sector, and further the study technique is faulty, as regression would have provided better result since the aim was to assess effect and not relationship.

Turro (2016) investigated the antecedents and consequences of corporate entrepreneurship. The study adopted a quantitative methodology with data collected from the Global Entrepreneurship Monitor. Data collected was analyzed using logistic regression, generalized linear multilevel logistic regression, and two-stage probit. Results confirmed the positive relationship between innovation and firm growth. This study used secondary data for the

study, while this study used primary data for the analysis, as such there could be differences in findings.

Zemplinerová and Hromádková (2012) studied the determinants of firm innovation by analysing the relationships between growth, innovation and subsidies based data sets ranging from 2004 to 2007 on large firms. The study linked data from financial statements with data from innovation surveys with innovation activities of firms are modelled as a four-stage model (CDM), thus allowing the study of several interrelated questions while controlling for simultaneity and for causality problem. Findings proved that innovation input significantly increases innovation output, that is, with increasing firms size. With no increase in firm size, the innovation output decreases. The study in measuring innovation moderated it with firm size and capabilities, which is outside the scope of this study while this study agrees that firm size may moderate innovation and firm performance, it will be too quick to conclude that would be the case in our study sample, as a common challenge are faced between the small and large firms in Nigeria.

Tuan, et al. (2016) explored the impacts of innovation on the different aspect of innovation performance, and their effects to firm performance (which was measured using production, market, and financial performance). The study made use of primary data from a questionnaire survey to collect information from the sample. The questionnaire was administered to directors and CEO of a list of Vietnamese firms. Data collected were analysed using factor analysis and regression. Results showed that innovations have positive effects on performance. Though study was carried out in a developing economy, the firms used for the study are not manufacturing firms and the unit of analysis used for the study are managers, thus, there could be difference in findings if employees were used for the study.

Vieites and Calvo (2011) investigated the factors that influence innovation in big firms of Spain, also exploring how these factors can lead to more successful innovation and business performance. The factors of the study were organizational, technological, financial, and information based resources. Data was collected from sample of 2224 workers. The study used structural equation modelling and PLS technique. The finding showed that the factors of innovation had positive effect on performance. The study was carried out in Span, which is a developed economy, thus, when carried out in Nigeria, the result may not be the same.

Farrukh, Iqbal, Khan, and Khan (2014) studied the impact of innovation climate and job satisfaction on corporate entrepreneurship. Data were collected through a self-administered questionnaire and convenience sampling was employed. A total of 200 questionnaires were distributed to measure the influence of corporate entrepreneurship on innovation climate and job satisfaction. Correlation and regression analysis were used to analyse the data. Results showed that an increase in innovation, job satisfaction and person-job fitness have a positive influence on corporate entrepreneurship while salary benefit does not relate to corporate entrepreneurship. The existence of a moderating variable changes the results of the study, therefore, in accepting the study finding there is a need for caution as the moderating variables may not be applicable in FCT.

Greco, Grimaldi, and Cricelli (2016) analysed the effect of open innovation on firm performance. Determinants of open innovation included suppliers of equipment/software, clients/customers, competitors, R&D institutes, higher education institutions, public research institutes, trade fairs/exhibitions, scientific journals, and industry associations. Data was collected through questionnaires using a sample of 279. Data were analysed using correlation analysis and regression models. Results showed that the effect of open innovation strategies on industrial and economic innovation performance is subject to diminishing returns. The authors also failed to validate its instruments and provide justifications for them. The study

was carried out in a developed economy and there could be differences in findings when carried out in a developing country like Nigeria.

In addition, the study of Ukpabio, Oyebisi, and Siyanbola (2010) assessed innovation on the performance of manufacturing SMEs in Nigeria. 305 samples were used for the study gathered in Southwestern Nigeria. Technique adopted were correlation and hierarchical regression. The result showed innovation relates significantly with firm performance. The regression result indicated that process innovation and organizational innovation influence SMEs performance significantly. The study deduced that all dimensions of innovation, especially process and organizational innovation, are critical elements for enhancing the performance of SMEs in Nigeria. Further, the study failed to measure innovation as an element of the organization but was rather more concerned with validating the dimensions of innovation that could influence performance of the manufacturing firms in the study. The study was carried out in south west Nigeria, which differs in scope with this study.

2.2.4 Risk-taking and Manufacturing Firms Performance

The study of McDowell (2017) provided a lethal understanding of the risk propensity as the study was on entrepreneurship as cultural innovation for sustainable competitive advantage. The study adopted a qualitative approach with a sample size of 30. The study adopted a phenomenological and grounded theory approach to identify the underlying challenges of corporate entrepreneurship to sustainable improvement. The evidence indicated that risk propensity is a cultural phenomenon that does not necessarily have a significant effect on performance. The study concludes that risk taking though useful is not a drive that stimulates the consciousness for improved performance. The sample size is small and the research approach was aimed at identifying emerging dimensions, therefore there is a possibility that

the risk-taking propensity may have been otherwise when the focus is to investigate whether it affects performance.

Also, Sylvia and Kalsom, (2013) assessed corporate entrepreneurship effect on performance using large firms. The study sample was 130 and the study used partial least squares regression for analysis of data. The result indicated that risk taking has a significant effect on firm performance. The study relied on the combination of both primary and secondary data as the dependent variable was measured using an average of the industry performance to the firm's performance. This method has been criticized as wrong as the time variance of data collection affects the quality of the data.

Further, the study of Boohene, Moses and Yeboah (2012) was an effect of entrepreneurial orientation on firm performance. The study was focused on the auto artist in Ghana. The study adopted a stratified random sampling technique. The study sample was 56. The study used questionnaire for generating data for the study. The study used regression technique for the analysis of the study. The study risk taking to have significant effect on performance. The study though found a weak relationship, however, it showed positive effect on performance. The study used the auto mobile sector, while the current study was the manufacturing sector.

In addition, Zainol and Ayadurai (2011) study was on entrepreneurial orientation on performance of family business in Malaysia. The study used a survey design for their study with a sample of 520. The study assessed risk taking as a measure of EO and found that entrepreneurial orientation has significant effect of performance. The technique for analysis used in the study was factor analysis. The technique for analysis was not appropriate given that factor analysis is for showing interrelationship in variables and not to assess effect as wrongly used in the study.

Furthermore, the study of Naldi, Nordqvist, Sjöberg, and Wiklund (2007) assessed risk taking and entrepreneurial orientation on performance of family business in Sweden. The study used a survey design for the study. The study used a stratified sample technique in selecting the small and medium-sized (SMEs) firms that participated in the study. The study used a sample of 1,278 responses for the study. The study used multiple regression for the analysis of the data gathered. The study found that risk taking had significant effect on performance of SMEs. The study was carried out in Sweden, which is a developed economy; as such the finding may not be same in this context.

Similarly, the study of Kraus (2011) assessed entrepreneurial orientation effect on performance using risk taking as a dimension of EO. The study found that risk taking have significant effect on performance of service firms in Austria. The study used a survey design for the study and a sample of 310 services were used for the study. The study used simple random sampling technique for the study. The study was carried out in Austria, which is a developed economy compared to our developing economy the findings may not be same. Also the study used the service sector for the study, while this study is using manufacturing firms for the study.

The study of Arbaugh, Cox, and Camp (2009) was on entrepreneurial orientation, growth strategy and performance. The study used a survey design for the study. The study used a sample of 1,045 firms for the study. The study used hierarchical regression for data analysis. The study found that risk taking has significant effect on performance. The study was carried out in a developed economy, as such the study cannot be said to be applicable in this country given the differences in context.

In addition, the study of Slater and Narver (2000) was on entrepreneurial orientation and business performance. The study used a sample of 230 firms and the risk-taking was used as a measure of corporate entrepreneurship. The result showed risk-taking can lead to increased

business performance. The study also identified that though risk-taking may be useful for future growth in the short term, it will rather affect then the performance of SMEs negatively. The authors measured business performance using objective measures, while this study is using a subjective measure of performance. The findings of this study are somewhat similar to the study of Swierczek and Ha (2003).

The study of Kemelgor (2002) was a comparative analysis between firms in the Netherlands and the USA on corporate entrepreneurship and their competitors. The study found that risk-taking has a significant influence on all performance measures used for their study. The comparative analysis result had a dissimilar result as that of the USA had a higher significant level when compared to that of Netherlands. The study also indicated that the measure of corporate entrepreneurship may not provide a similar result in different cultures. This study was a comparative analysis and the result was not subjected to external factors that may affect a comparative study. The study adopted a quantitative approach to the study and failed to compare the opinions of the managers from the comparative firms in different countries.

2.3. Theoretical framework

This study relied on the understanding of the Schumpeterian theory of innovation and the risk-bearing theory to provide a theoretical underpinning or lens through which this study is undertaking. These theories provided a basis for the foundational empirical evaluation of the problem statement.

2.3.1 Schumpeterian theory on Innovation

Joseph Schumpeter (1934) propounded the innovation theory. The innovation theory states that an entrepreneur or organisations should be innovative, as opportunities abound to be converted that will ensure increased performance. The theory believes that performance can be increased through innovative set of activities in the organisation. The theory state that

individuals have premonition, and creativity and converting same would increase lead to innovation.

Further, the theory holds that entrepreneurship does not seem to be in existence until when another product created for an existing market, or new product for a new market through discovering new markets and finding a wellspring of material and in addition better approaches for making things in the organisation.

In any case, the theory overlooks the risk-taking capacity and aptitudes and perceives the significance of innovation. This theory has been applied to both vast and small-scale organizations; however, economic conditions drive small businesses to copy as opposed to developing new ideas. Szirmai, Naude and Micheline (2011) included that innovation fills in as a key factor, which reinforces business enterprise development and prompts increased profitability chains, innovative change, bringing about a more extensive market and better nature of products and ventures.

The application of this theory to this study is based on the understanding that skills such as innovativeness, critical thinking, and relational abilities are required by corporate organisations to improve their performance. The theory provides support to the study stand that innovation is critical to performance. In addition, these aptitudes can likewise be created through management support, since enterprise activities centres on giving people training and experiential discovering that assembles both delicate abilities, the organisation will be a better position to harness its human resources. In application to this study, this affirms that management support has a significant influence on firm performance.

2.3.2 Frank Knight's Risk Bearing Theory

Business enterprises have been related with the inclinations of risk-taking and the utilization of existing corporate drives since it was brought into the financial setting. Frank Knight

(1921) first presented the theory of risk-taking in entrepreneurship. He embraced the theory of early financial analysts, and included the component of risk-taking to entrepreneurship studies.

The theory holds that organisations risk-taking/vulnerability is a critical production component, thus, the organisation must be seen to be acting fully expecting future occasions (Nayab, & Scudder, 2011). In accordance with this theory, an organisations risk-taking propensity is depicted as seeking after business ideas or new ventures with the likelihood to succeed. The theory believes that risk taking has direct effect on performance, as it allows the firm take advantage of events and predict cause of actions that could increase their performance.

This implies that when an organisation succeeds, there is a propensity to extend their business and connect more individuals in work, subsequently gaining competitive advantage and in like manner lightening neediness (Nayab, & Scudder, 2011). The risk-bearing propensity can likewise be a result of organisation attitude to things and understanding of its market. The theory states that been proactive in understanding market demands helps reduce the chance of failed risk and increases the chances of a success (Nayab, & Scudder, 2011). This indicates that this theory still need to be verified for it to hold.

The application of this theory to this study is the support of the hypothesis that risk-taking has a significant influence on the performance of manufacturing firms and that proactive nature of firms is useful in driving the performance of the organisation to better performance.

2.4 Summary and Identified Gap of Literature Review

The review of extant literature has shown that some scholarly researches have been carried out to ascertain the effect of corporate entrepreneurship on the performance of firms. There is evidence of innovation, proactiveness, risk taking and management support indicating a

degree of significance. Conversely, there are studies that holds a contrary standpoint on the variables, while some have shown significance in innovation and risk taking; others have rather been the opposite in management support and proactiveness.

The study was underpinned with two distinct theories, which are the Schumpeter innovation and risk-taking theory. The postulations further leaned support to the dimensions of the study and provided empirical bases for evaluating the study. The theories helped predict some level of significance between performance and dimensions of corporate entrepreneurship.

The review encompassed a variant of studies globally and in Nigeria. However, the review shows that there are limited studies that have been empirically carried out in Nigeria. The few that were even carried out in Nigeria used firms that are based in South West, Nigeria thereby creating a gap in the geographical scope of studies on corporate entrepreneurship and performance in Nigeria. Although, performance was measured in most studies reviewed, there are still variants in the measures of performance, as most study of the studies were tilted towards the financial dimensions of performance.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The research design that underpinned the study was a survey research design. The survey design adopted in this study entails a broad approach towards providing an answer to the problem statement. This choice was aimed at having a quantitative assessment of the study problem and be able to apply a scientific approach to understanding the problem statement.

3.2 Population, Sample Size and Sampling Technique

3.2.1 Population of the Study

The population of the study constitutes the entire manufacturing firms in FCT Abuja. The accessible study population comprises supervisors, factory managers and other employees in the organisations. The criteria for manufacturing firm selection was based on several years of operation, which is between 10 - 20 years, membership with Nigerian Manufacturers Association of Nigeria (MAN) and the existence of corporate structure in the organisation. The justification of the criteria is based on the need to select firms that are operational and have the capacity to provide answers to the study questions. Findings from the MAN head office in Abuja and the researcher's physical visitation indicates that eight (8) registered manufacturing firms in FCT met the study criteria. Thus, the population comprised 480 employees, as obtained from the Human Resource Units of the selected firms (See below for a breakdown of the population).

Table 1: Population Distribution of the Study

S/N	Manufacturing Firms	Number of Employees
1.	Lion Steel Group	58
2.	Alumaco Plc	62
3.	DeChi Steel Co. Ltd,	67
4.	Berger Paints Nig. Plc,	66
5.	Isoglass Industries	43
6.	First Aluminium Nig. Plc,	54
7.	Zuma Paints Industries	51
8.	Royal Mill & Foods Nig Ltd	79
	Total	**480**

Source: HR Unit of the selected Firms in FCT

3.2.2 Sample Size Determination and Technique

The study sample size is 218; it was determined with Taro Yamane formula, and Burnley's proportional formula was used for instrument distribution (See below). The sampling techniques that was used is convenient sampling. The choice of the sampling was because it allows the researcher select respondents that can provide an answer to the questions of the study. Further, justifying the sample of size as suitable for SEM analysis, the study followed the suggestion of Creswell, (2013) in analysing the required sample for a study with four criterion variables. The analysis was carried out on G*power software.

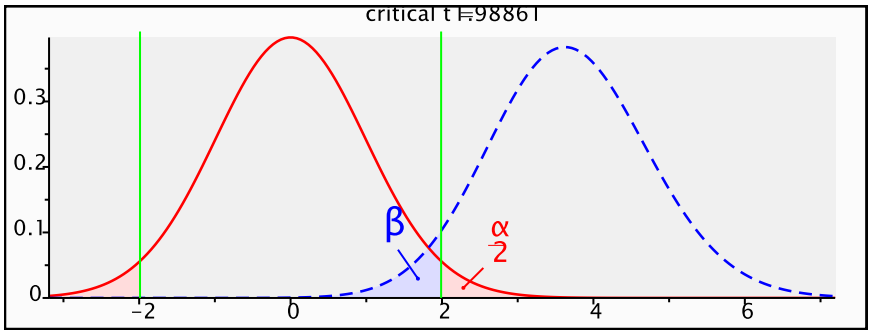

Fig 2: Sample T-Distribution Graph
Source: Gpower Output, 2019

[5] -- *Sunday, May 26, 2019 -- 21:44:05*
t tests – Linear multiple regression: Fixed model, single regression coefficient
Analysis: A priori: Compute required sample size
Input: Tail(s) = Two
Effect size f^2 = 0.15

	α err prob	=	0.05
	Power (1−β err prob)	=	0.95
	Number of predictors	=	4
Output:	Noncentrality parameter δ	=	3.6537652
	Critical t	=	1.9886097
	Df	=	84
	Total sample size	=	89
	Actual power	=	0.9507039

The result indicates that the minimum required sample size for this study should be 89, thus, given the sample obtained using Taro Yamane is 218, it implies that it is suitable for further analysis.

Sample Size Determination

The sample size was determined using Taro Yamani Formula:

$$n = \frac{N}{1 + N(e)^2}$$

Where n = Sample size
N = Population of the study
e = Tolerable error (5%)

$$n = \frac{480}{1 + 480\ (0.05)^2}$$

$$n = \frac{480}{1 + 480\ (0.0025)}$$

$$n = \frac{480}{1 + 1.2}$$

$$n = \frac{480}{2.2}$$

$$n = 218$$

$$n = 218$$

Using Bourley's proportional allocation formula:

$$n = \frac{n\,(n)}{N}$$

Table 2: Instrument Distribution

Name of Selected Firms	Number of Employees	Allocation of Research Instrument
Lion Steel Group	58	58(218)/480 = 26
Alumaco Plc	62	62(218)/480 = 28
DeChi Steel Co. Ltd,	67	67(218)/480 = 30
Berger Paints Nig. Plc,	66	66(218)/480 = 30
Isoglass Industries	43	43(218)/480 = 20
First Aluminimu Nig. Plc,	54	54(218)/480 = 25
Zuma Paints Industries	51	51(218)/480 = 23
Royal Mill & Foods Nig Ltd	79	79(218)/480 = 36
Total		218

Source: Author's Computation, 2019

3.3 Method of Data Collection

This study largely relied on primary sources of data that was being expressly collected for this investigation only. Data were collected with the use of a questionnaire. The choice of a questionnaire was because it serves as the foundation for both empirical and behavioural research in social sciences.

The questionnaire was designed in a dual-funnel approach with two major sections. Section A was on the demographic information of the respondents, while section B was on the variables of the study. The study adopted the Corporate Entrepreneurship Assessment Instrument (CEAI) designed by Hornsby, Holt and Kuratko, (2008) to measure corporate entrepreneurship. The instrument was designed using a five-point Likert scale ranging from strongly agree (1), agree (2), undecided (3), disagree (4) and strongly disagree (5).

Performance was measured subjectively using the instrument designed by Gupta and Govindrajan (1984). The questionnaire is a 5 point Likert-type scale ranging from strongly agree (1), agree (2), undecided (3), disagree (4) and strongly disagree (5). The respondents were required to provide their perception on the extent the manufacturing firms are satisfied with their average performance for the last three years. This is to reduce the decision variation as suggested by Gupta and Govindrajan (1984); Al-Tit (2017) and Covin, Slevin and Heeley,

(2001). The choice of these instruments is because of their high-reliability index of 0.94 and 0.812 and similarity in study and application of the instrument in varying operating environments.

3.4 Validity and Reliability Test

The study adopted Construct validity. The construct validity was evaluated with Exploratory factor analysis (EFA) using principal axis factoring, and Convergent validity. The choice of Factor analysis is because it addresses the issue of analysing the interrelationships among a large number of items and then explaining these items in terms of their common underlying dimensions (factors). Factor loadings were used to present these relationships. In this study, a factor loading of 0.50 was used as the usual cut-off point. A pilot study was carried out with 35 research instrument that was administered to separate independent respondents.

3.4.1 Assessment of Validity of Corporate Entrepreneurship Assessment Instrument (CEAI)

The scale developed by Hornsby, Holt and Kuratko, (2008) to measure corporate entrepreneurship was pilot tested with a sample size of 35 respondents. The corporate entrepreneurship assessment instrument scale is measure with four variables and 20 items. The normality test provided support for the factor analysis (See Appendix). Further check on sampling adequacy using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity all proved significant as indicated below.

Table 3: KMO, and Bartlett's Test for Corporate Entrepreneurship scale

'Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.689
'Bartlett's Test of Sphericity	Approx. Chi-Square	444.528
	Df	190
	Sig.	.000

Source: SPSSv25 Output

The result provides support for the use of factor analysis to validate the corporate entrepreneurship scale. The result indicates that Bartlett's Test of Sphericity is statistically significant (35) = 444.528, $p < 0.001$, thus supporting factorability of the correlation matrix. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.689 (190), which exceeded the average recommendation of 0.6 (Kaiser, 1974). The variables showed no patterned relationship in the correlation matrix (See Appendix).

Table 4: Rotated Factor Matrix for Corporate Entrepreneurship scale

	Factor			
	1	2	3	4
INNO1		.535		
INNO2		.552		
INNO3		.597		
INNO4		.722		
INNO5				
PROT1			.680	
PROT2				
PROT3			.501	
PROT4			.641	
PROT5			.642	
RSTK1	.546			
RSTK2	.620			
RSTK3				
RSTK4	.626			
RSTK5	.849			
MGST1				.879
MGST2				.712
MGST3				.618
MGST4				.737
MGST5				.636

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 8 iterations.

Source: SPSSv25 Output, 2019

The above result further validated the corporate entrepreneurship assessment instrument designed by Hornsby, Holt and Kuratko, (2008) and its suitability for an emerging market;

this is thus a contribution to knowledge. The four (4) factors or items explains (18.400%) of innovation, four (4) factors that explain proactively explains (17.030%), the four (4) factors or items on proactiveness explains (12.826%), while management support with five (5) factors or items explains (11.963%) as underlying factors or proxies of corporate entrepreneurship. The result indicated that the 17 factors explained 60.219% of corporate entrepreneurship, which is within the threshold Hair *et al*. (2010) suggested a minimum of 60% (See Appendix).

Further analysis that was carried out would be based on the variables that loaded on the sub-constructs. This result confirms that the variables sufficiently measure the construct and the sub-construct of the study instrument designed by Hornsby, Holt and Kuratko, (2008). Therefore, this confirms the conceptual construct of corporate entrepreneurship has four sub-constructs (innovation, risk-taking, proactiveness and management support).

3.4.1 Assessment of Validity of Performance Scale

The study adopted the scale developed by Gupta and Govindrajan (1984) to measure performance subjectively. The pilot test was with a sample size of 35 respondents. The performance scale was measured with five (5) items. The normality test provided support for the factor analysis (See Appendix). Further check on sampling adequacy using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity all proved significant as indicated below.

Table 5: KMO, and Bartlett's Test for performance scale

'Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.604
'Bartlett's Test of Sphericity	Approx. Chi-Square	61.731
	Df	10
	Sig.	.000

Source: SPSSv25, Output, 2019

The result provides support for the use of factor analysis for validity assessment of performance. The result indicates that Bartlett's Test of Sphericity is statistically significant

(35) = 61.731, p < 0.001, thus supporting factorability of the correlation matrix. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.604 (10), which exceeded the average recommendation of 0.6 (Kaiser, 1974). The variables showed no patterned relationship in the correlation matrix (See Appendix).

Table 6: Factor Matrix for Performance scale

	Factor
	1
PERF1	.808
PERF2	.919
PERF3	.566
PERF4	.609
PERF5	

Extraction Method: Principal Axis Factoring.

a. 1 factors extracted. Ten iterations required.

Source: SPSSv25, Output, 2019

The above result further validated the instrument that was designed by Gupta and Govindrajan (1984) to measure performance subjectively and its suitability for an emerging market; this is thus a contribution to knowledge. The result, however, showed that only four (4) factors or items explain (65.950%), which is within the threshold Hair *et al*. (2010) suggested of a minimum of 60% (See Appendix) of profit as an underlying proxy to measure performance. The result confirms that the measure of profit subjectively is unidimensional, which is similar to the findings of (Al-Tit, 2017). Further analysis that was carried out was based on the variables that loaded on the constructs.

The study also assessed the convergent validity of the constructs using the average variance extracted (AVE). AVE value above 0.5 suggests an adequate convergent validity (Hair et al., 2010) (See PLS result in Table 7).

3.4.2 Assessment of Reliability of Instrument

The study adopted internal consistency reliability in assessing the reliability of the survey instruments and scales. The choice of internal consistency is because it helps to provide an indicator of how well the different items measure the same variable. Internal consistency is

measured by calculating a statistic known as Cronbach's coefficient alpha, and composite reliability (CR) as suggested by Hair, et al (2010) as a requirement for structural equation model. Generally, Cronbach alpha coefficients of 0.60 or more are considered suitable, and composite above .070 is high (Hair et al., 2017; Creswell, 2003), therefore, in this study items with alpha coefficients of 0.60 and above was considered suitable for the scale.

Table 7: Reliability of study scale

S/N	Variables	Cronbach alpha	Composite Reliability	Average Variance Extracted (AVE)	No of Items
1	Innovativeness	.665	.745	.762	4
2	Risk taking	.654	.824	.784	4
3	Proactiveness	.813	.911	.789	4
4	Management support	.748	.712	.861	5
5	Performance	.805	.819	.722	4

Source: SmartPLSv3, Output, 2019

3.5 Method of Data Analysis

Descriptive and inferential statistics were used for data analysis. Mean, and Standard deviation was used to analyse the item response on the survey instrument, while Structural Equation Model (SEM path modelling approach) was used to test the hypotheses formulated at 0.05 level of significance with the aid of SmartPLS (v3). To arrive at a decision, the t-value was used. The hypothesis was rejected if less than 1.96 and accepted if more than 1.96 as Cohen, (1988), and Lind, Marchal and Wathen, (2013) suggested for the use of t-value for the estimation of variables significant level.

3.6 Model Specification

Drawing inferences from the study variables and support from literature, the model specifications here are formulated to test the hypotheses, and they are as follows:

Model

$PER_{MFs} = \beta_0 + \beta_1 INV + \beta_2 RKT + \beta_3 PCS + \beta_4 MGS + \varepsilon_1$

Where:

INV = Innovation

RKT = Risk-taking

PC = Proactiveness

MGS = Management Support

ε_1 = Error Term

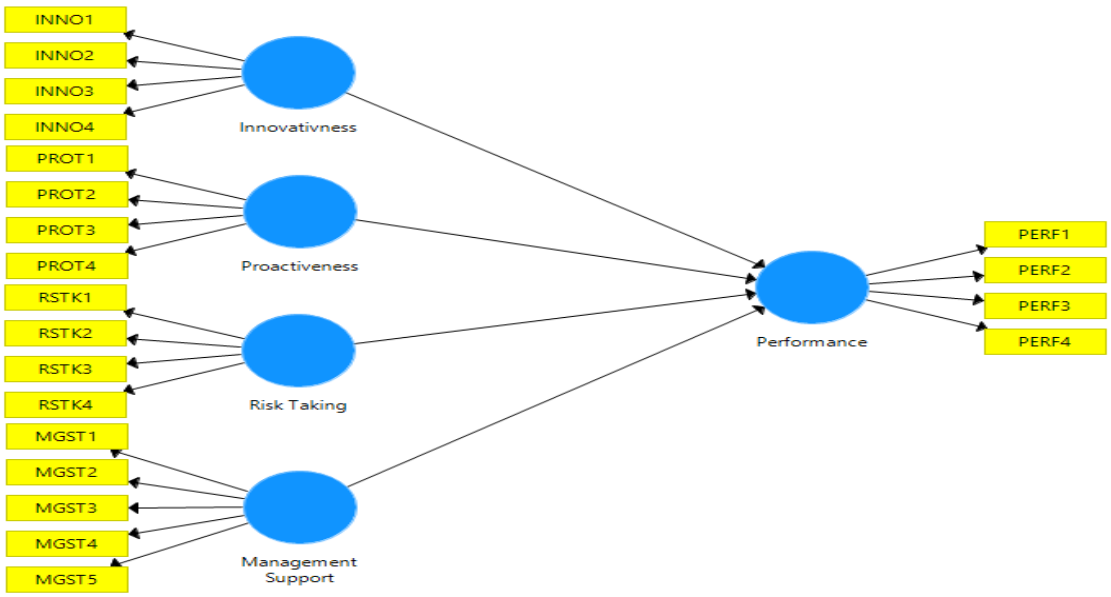

Fig. 3. Theoretical Model on Corporate Entrepreneurship and Performance of Manufacturing Firms in FCT.

3.7 Justification of Method

The choice of the survey design was premised on the nature of the study problem. The method adopted was to have a balance in the result and close gap observed in the literature. The choice of structural equation model is based on its suitability for a data gotten through an ordinal scale (Likert scale) and the need to confirm the hypothesised relationships between the model constructs. PLS-SEM allows for assessing prediction and exploration and allows for the limited study sample. The procedure provides predictive and exploratory purposes that allow for theory verification and is better suited to explain complex models or relationships. It is suitable for this study since the focus is on specific research questions and providing an answer from data that involves changing and complex research environments, thus, providing support for theorising purposes.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

The distributed questionnaire was 218 in line with the sample size of the study and as indicated from the table 178(82%) copies of the questionnaire distributed were completely filled and returned, 22(10%) were not properly filled but returned, and 18(8%) were not returned. Subsequent analysis was carried out using the 178 instruments returned given a reasonable return rate of 82%.

Table 8: Administration of Instrument

Description	Responses	Percentage (%)
Completely filled and returned	178	82%
Not properly filled but returned	22	10%
Not returned	18	8%
Total	218	100

Source: Fieldwork, 2019

4.1.1. Demographic Distribution of the respondents

Table 9: Sex of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	**112**	**63**	**63**	**37**
	Female	**66**	**37**	**37**	**100.0**
	Total	**178**	**100.0**	**100.0**	

Source: Fieldwork, 2019

The table 9 shows that 112(63%) of the respondents are male while 66(37%) are female that participated in this study. The result indicates there was no balance in gender due to a limited number of women in the manufacturing sector.

Table 10: Age bracket of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-30 years	13	7.3	7.3	7.3
	31-40 years	82	46.1	46.1	53.4
	41-50 years	56	31.5	31.5	84.8
	50 years and above	27	15.2	15.2	100.0
	Total	178	100.0	100.0	

Source: Fieldwork, 2019

The table 10 shows the age distribution of the respondents, as shown 13(7.3%) are within the age of 18 - 30years, 82(46.1%) are between 31 - 40years. 56(31.5%) were between 41 - 50years of age, while 27(15.2%) were between the age of 50years and above.

4.1.2 Analysis of Items in the study scale

The combined variable distribution responses to items in the research instrument are presented below.

Table 11: Distribution of responses on Innovativeness

	ITEMS	SA	A	UD	D	SD
1	Our firm prefers to design its unique new processes and methods of production rather than adapting the methods and techniques of other firms.	25 14%	71 40%	20 11%	47 26%	15 9%
2	Our firm favours experimentation and original approaches to problem-solving rather than imitating methods that other firms have used.	39 22%	53 30%	0 0%	64 36%	22 12%
3	There is a strong emphasis on the marketing of new product lines through an emphasis on R & D, and technological leadership.	20 11%	62 35%	6 3%	41 23%	49 28%

4	In the last three years, our firm has provided new, improved or modified product brands to the market that have been accepted.	10 6%	31 17%	11 6%	69 39%	57 32%

Source: Fieldwork, 2019

The response from the questionnaire indicates that 25(14%) strongly agree that the prefers to design its unique processes, 71(40%) agreed, 20(11%) were indecisive, 47(26%) disagreed while 15(9%) strongly disagreed that the firm prefers to design its process rather than adopt that of an existing firm. The response showed that 39(22%) strongly agreed, 53(30%) agreed, 64(36%) disagreed, while 22(12%) strongly disagreed that the firm favours experimentation and original approaches to problem-solving. The result indicates that 20(11%) strongly agreed, 62(35%) agreed, 6(3%) was indecisive, while 41(23%) disagreed and 49(28%) strongly disagreed that there is strong emphasis on the marketing of new product lines through research and development and technological leadership. Lastly, the responses indicate that 10(6%) strongly agreed, 31(17%) agreed, 11(6%) was indecisive, while 69(39%) disagreed and 57(32%) strongly disagreed the firm has in the last three years provided improved or modified products. Even though conclusion cannot be drawn from descriptive statistics, however, it shows the direction of the respondent son the variable of the study, as such, it can be assumed that the extent of innovativeness is quite moderate among manufacturing firms in FCT.

Table 12: Distribution of responses to Risk-taking

	ITEMS	**SA**	**A**	**UD**	**D**	**SD**
1	Our firm explores the environment gradually via careful, incremental behaviour (rather than bold, wide-ranging acts necessary to achieve the firm's objectives)	34 19%	57 32%	8 5%	36 20%	43 24%

2	The firm prefers to study a problem carefully before expending their resources, as a substitute of being quick to release finances.	72 40%	53 30%	0 0%	29 16%	24 14%
3	When confronted with decision-making situations involving uncertainty, my firm typically adopts a cautious, "wait-and-see" posture in order to minimise the probability of making costly decisions.	56 32%	44 25%	15 8%	38 21%	25 14%
4	Employees have the confidence to take risks when carrying their duties in the organization.	3 2%	24 13%	0 0%	69 39%	82 46%

Source: Fieldwork, 2019

The response indicates that 34(19%) strongly agreed, 57(32%) agreed, 8(5%) was indecisive, 36(20%) disagreed and 43(24%) strongly disagreed that the firm explores the environment gradually via careful, incremental behaviour. The result showed that 72(40%) strongly agreed, 53(30%) agreed, 29(16%) disagreed and 24(14%) strongly disagreed that the firm prefers to study a problem thoroughly instead of quick action to investment. The result further indicates that 56(32%) strongly agreed, 44(25%) agreed, 15(8%) was indecisive, 38(21%) disagreed and 25(14%) strongly disagreed that when confronted with decision-making situation involving uncertainty the firm is always thorough. The result shows that 3(2%) strongly agreed, 24(13%) agreed, 69(39%) disagreed, and 82(46%) strongly disagreed that employees have the confidence to take a risk when carrying out their duties in the organisation. The result from the descriptive statistics indicates that the risk-taking extent of the firms that participated in the study are moderate.

Table 13: Distribution of responses on Proactiveness

	ITEMS	SA	A	UD	D	SD
1	Our organisation respond to activities that competitors identifies immediately, rather than starting things first on their own.	84 47%	55 31%	0 0%	26 15%	13 7%
2	Our firm has a strong tendency to "follow the leader" in acquaint with new products or ideas instead of starting before competitors in introducing unique ideas	88 49%	53 30%	4 2%	33 19%	0 0%
3	Our firm ensures that it does not engage in competitive clatters, desiring "live-and-let-live" stance instead of competitive "undo-the-competitors" posture.	63 35%	45 25%	3 2%	49 28%	18 10%
4	Our firm ensures that employee's need is anticipated and efforts are made to see that they are provided before other competitors.	71 40%	21 12%	0 0%	39 22%	47 26%

Source: Fieldwork, 2019

The result showed that 84(47%) strongly agreed, 55(31%) agreed, 26(15%) disagreed while 13(7%) strongly disagreed that in dealing with competition their firm responds to action that competitors initiate instead of initiating for competitors to follow. The result shows that 88(49%) strongly agreed, 53(30%) agreed, 4(2%) was indecisive, 33(19%) disagreed that their firm has a strong tendency to follow leaders in introducing new products or idea ahead of competitors. The finding shows that 63(35%) strongly agreed, 45(25%) agreed, 3(2%) were indecisive while 49(28%) disagreed and 18(10%) strongly disagreed their firm seeks to avoid competitive clashes with competitors. Lastly, 71(40%) strongly agreed, 21(12%) agreed, 39(22%) disagreed and 47(26%) strongly disagreed that their firm ensures that employee's need is anticipated and efforts are made to see they are provided. The result indicates that proactiveness in the participating firms is rather moderate.

Table 14: Distribution of responses on Management Support

	ITEMS	SA	A	UD	D	SD
1	The managers of my firm belief that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue rather than when the CEO and top managers provide the primary impetus for pursuing business opportunities	32 18%	77 43%	20 11%	26 15%	23 13%
2	My firm supports the efforts of individuals and/or teams that work autonomously without relying on senior managers to guide their work.	60 34%	38 21%	16 9%	43 24%	21 12%
3	Managers actively encourage a culture of change, development, learning, and innovation towards 'excellence'.	63 36%	55 31%	15 8%	45 25%	0 0%
4	The managers in our company possess the right leadership qualities to participate in ideation in order to support innovation.	48 27%	52 29%	13 7%	49 28%	16 9%
5	Employees have the opportunity to take part in implementing the changes in our firm.	46 26%	54 30%	11 6%	35 20%	32 18%

Source: Fieldwork, 2019

The result indicates that 32(18%) strongly agreed, 77(43%) agreed, 20(11%) were indecisive while 26(15%) disagreed and 23(13%) strongly disagreed that the managers believe they can achieve the best result when the individuals decide what business opportunities to pursue than for the top managers to dictate. 60(34%) strongly agreed, 38(21%) agreed, 16(9%) were indecisive while 43(24%) disagreed and 21(12%) strongly disagreed that the firm supports individual efforts to work without relying on senior managers autonomously. The result indicates that 63(36%) strongly agreed, 55(31%) agreed, 15(8%) was indecisive, while 45(25%) disagreed that managers actively encourage a culture of change, learning and

development. 48(27%) strongly agreed, 52(29%) agreed, 13(7%) was indecisive, while 49(28%) disagreed and 16(9%) strongly disagreed that the managers possess the right leadership to drive innovation. The result shows that 46(26%) strongly agreed, 54(30%) agreed, 11(6%) was indecisive, while 35(20%) disagreed and 32(18%) strongly disagreed that employees have the opportunity to take part in implementing changes in the firm.

Table 15: Distribution of responses on Performance

	ITEMS	SA	A	UD	D	SD
1	The market share of your company grew during the past three years	84 47%	47 26%	8 5%	26 15%	13 7%
2	Our company's operational performance (productivity: accomplished projects or products) in the past three years is good	73 41%	53 30%	31 17%	14 8%	7 4%
3	Over the last three years, our company's overall sales revenue has been improving	34 19%	75 42%	25 14%	25 14%	19 11%
4	Over the last three years, our company's overall return on investment has been low	29 16%	69 39%	34 19%	28 16%	18 10%

Source: Fieldwork, 2019

The result from the table 15 above indicates that 84(47%) strongly agreed, 47(26%) agreed, 8(5%) was indecisive, while 26(15%) disagreed and 13(7%) strongly disagreed that the market share of the company in the last 3years have increased. The result shows that 73(41%) strongly agreed, 53(30%) agreed, 31(17%) were indecisive, while 14(8%) disagreed and 7(4%) strongly agreed that the company's operational performance in the last 3years has been excellent. 34(19%) strongly agreed, 75(42%) agreed, 25(14%) were indecisive, while 25(14%) disagreed and 19(11%) strongly disagreed that the relative overall sales have improved in the last three years. 29(16%) strongly agreed, 69(39%) agreed, 34(19%) were

indecisive, while 28(16%) disagreed and 18(10%) strongly agreed that the company's overall return on investment has been low. The responses indicate that performance from the selected firms that participated in the study have been moderate.

4.1.3 Common Method Variance Test

There has been concerns on the issue of bias on self-reported questionnaire most especially when the independent and dependent variable data were sourced from a single individual, as it is common problem with survey design. There is the assumption that collecting response on both the dependent and independent variable on a construct of interest could lead to consistency motif, which is the possibility of prejudgment in their understanding, response and attitude of the study. Further, given the high number of undecided on the data gathered it further justify the need for this analysis. Thus, to test for likely bias in the response the study adopted the Harman single factor test using SPSSv25. The result from table indicates none of the variable explains more than 50% in variance, thus, it can be concluded that there is no bias in the data, as the data was free from any form of prejudiced response.

Table 16: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.983	39.915	39.915	7.604	38.019	38.019	3.680	18.400	18.400
2	1.971	9.853	49.768	1.578	7.892	45.911	3.406	17.030	35.430
3	1.843	9.216	58.984	1.458	7.292	53.204	2.365	12.826	48.256
4	1.452	7.258	66.241	1.003	5.016	58.219	2.193	11.963	60.219
5	1.168	5.840	72.082						
6	1.108	5.542	77.623						
7	.861	4.307	81.930						
8	.629	3.147	85.077						
9	.591	2.957	88.034						
10	.462	2.311	90.344						
11	.420	2.101	92.446						
12	.387	1.934	94.380						
13	.256	1.279	95.659						
14	.220	1.102	96.761						
15	.205	1.024	97.785						
16	.149	.747	98.531						
17	.105	.523	99.054						
18	.081	.407	99.462						
19	.068	.341	99.803						
20	.039	.197	100.000						

Extraction Method: Principal Axis Factoring.

4.2 Test of Hypothesis

Sequel to the confirmation of the measurement of the model through the validity and the reliability of the measurement model, the hypothesis stated in chapter one were tested, and decision rules as stated in chapter three formed a basis for acceptance or rejection of a hypothesis. The analysis was carried out using the PLS algorithm and Bootstrapping algorithm of SmartPLSv3.

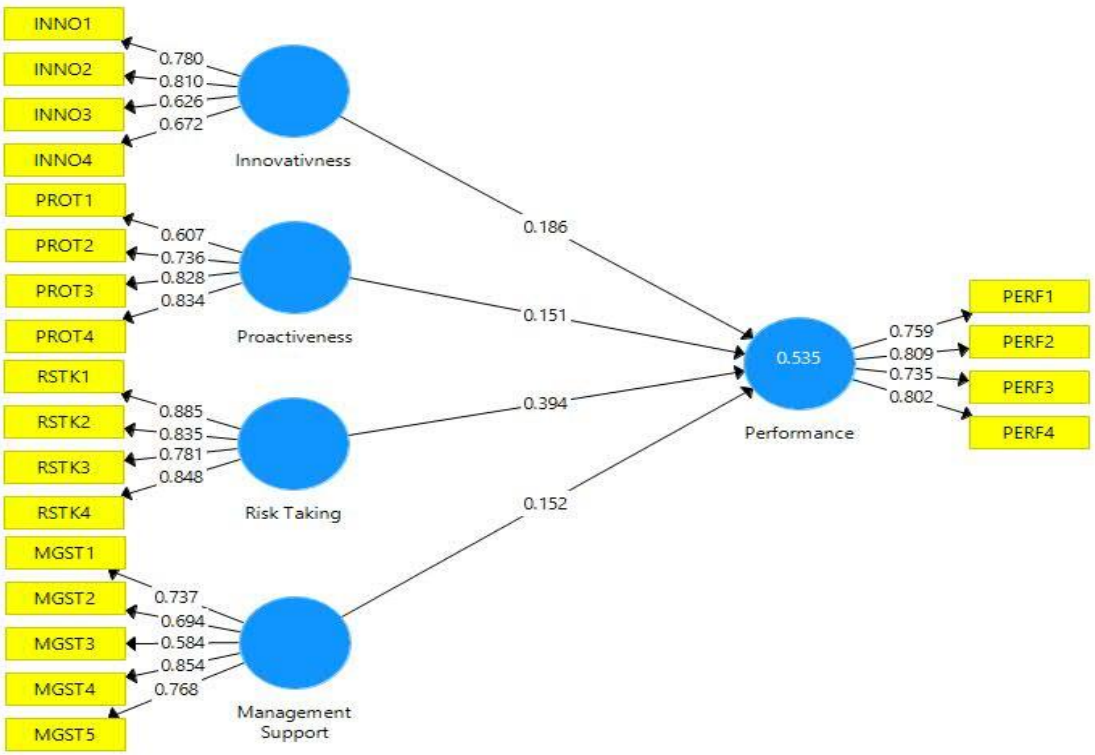

Fig. 4: Items loadings and path coefficient

Source: SmartPLSv3 Output, 2019

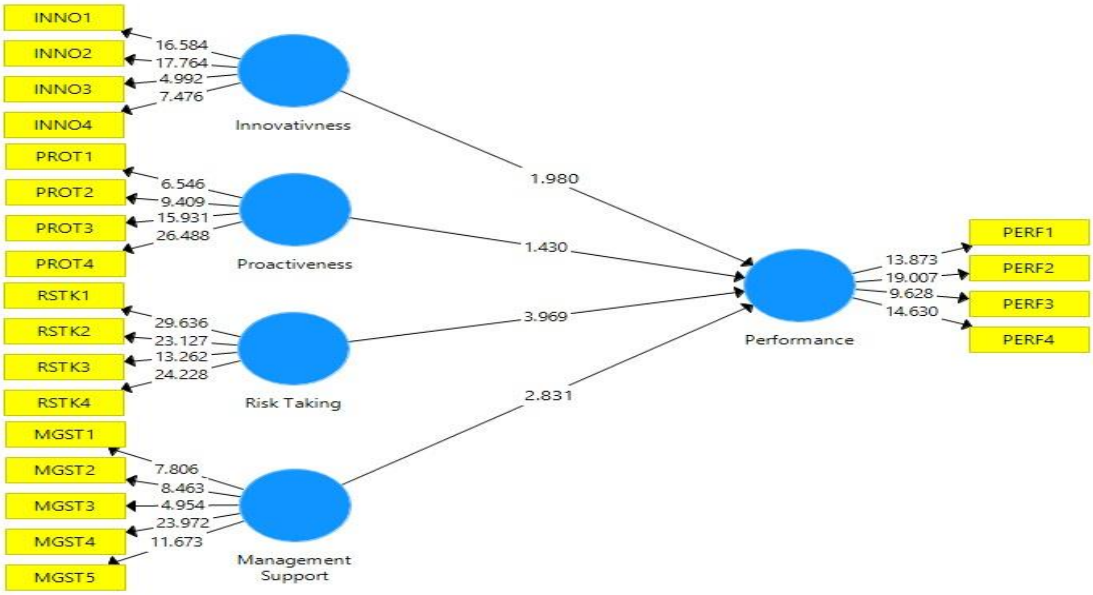

Fig. 5: Significance of factor loadings and path coefficient

Source: SmartPLSv3 Output, 2019

Table 17: SEM Results and Findings

Hypothesis	Variable	Path Coefficient ***(Beta)	t-value	Findings
H1	Proactiveness	0.151	1.430	Accepted
H2	Management Support	0.152	2.831	Rejected
H3	Innovativeness	0.186	1.980	Rejected
H4	Risk taking	0.394	3.969	Rejected

Source: SmartPLS, Output, 2019

The result from the Figures 4 and 5 and Table 17 indicates the overall path coefficient of the model between corporate entrepreneurship and firm's performance was found to be significant at the 0.05 level of significance ($\beta=0.535$, $p<0.05$). This implies that corporate entrepreneurship explains about 53.5% of the variance in manufacturing firm's performance in FCT, thus, in line with Cohen (1988), suggestions it thus means that corporate entrepreneurship has substantial power in explaining performance. The result further shows that risk-taking shows the most influential unique factor that explains performance, while provocativeness had the least value that predicts performance. The result further shows for each of the dimensions of the study, as discussed below.

Hypothesis One

The result from the analysis indicates that proactiveness has no significant influence on the performance of manufacturing firms in FCT. The decision was reached based on the t-value that is less than 1.964 (β = 0.151, t-value = 1.430). Thus, this implies that the null hypothesis is accepted that the manufacturing firm's proactiveness has no significant effect on their profitability.

Hypothesis Two

The result from the analysis indicates that management support has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 (β = 0.152, t-value = 2.831). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means management support has a significant influence on profitability.

Hypothesis Three

The result from the analysis indicates that innovativeness has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 (β = 0.186, t-value = 1.980). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means innovativeness has a significant influence on profitability.

Hypothesis Four

The result from the analysis indicates that risk-taking has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 (β = 0.394, t-value = 3.969). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means risk-taking has a significant influence on profitability.

4.2.1 Model Goodness of Fit (GoF)

Sequel to the need to validate the PLS model, there is a need to assess the goodness of fit of the model as Hair, et al. (2010) suggested. This study used the standardised root mean square residual's (SRMR). The choice of this index was based on the fact that the SRMR provides the absolute fit measure where a value of zero indicates a perfect fit. The study adopted Hu & Bentler (1998) suggestion that a value of less than 0.08 represents a good fit while applying SRMR for model goodness of fit. The study result indicates an SRMR value of 0.076. This indicates the model fits. Aside the chi-square, the other measure indicates a goodness of fit on the model of the study.

Table 18 Model of Goodness of fit Summary

	Saturated Model	Estimated Model
SRMR	0.076	0.076
d_ULS	1.320	1.320
d_G	0.853	0.853
Chi-square	377.733	377.733
NFI	0.669	0.669

Source, SmartPLSv3, Output, 2019

4.3 Discussion of Findings

The findings from the analysis above indicate that the model is fit, and the result indicates that proactiveness has no significant influence on the performance of manufacturing firms in FCT. The decision was reached based on the t-value that is less than 1.964 ($\beta = 0.151$, t-value = 1.430). Thus, this implies that the null hypothesis is accepted that the manufacturing firm's proactiveness has no significant effect on their profitability. The finding agrees with the study of Rauch, Wiklund, Freese, and Lumpkin, (2004). Similarly, the finding supports the study of Alpkan, Ergün, Bulut, & Yılmaz (2005) that found that proactiveness has no significant influence on performance.

Conversely, the finding differs from the finding of Taylor, (2013), and the study of Bruno (2015) that assessed the influence of corporate entrepreneurship on performance. These studies found that proactiveness have significant influence on performance. The variations in the findings could be because of differences in societal context where the studies were carried out, methodological and sample size covered.

The finding from the analysis indicates that management support has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 ($\beta = 0.152$, t-value = 2.831). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means management support has a significant influence on profitability. The finding agrees with the study of Baskaran (2017) that investigated the influence of management support in creating entrepreneurial orientation among employees in organisations. Similarly, the finding agrees with the study of Kamatigam (2017) that assessed how managers' support improves corporate entrepreneurship and employee's performance.

The result from the analysis indicates that innovativeness has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 ($\beta = 0.186$, t-value = 1.980). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means innovativeness has a significant influence on profitability. The finding from the study agrees with the study of Moige et al. (2016) and the study of Lwamba et al, (2014) that explored the effect of corporate entrepreneurship on the performance of manufacturing firms in Kenya. Similarly, the study finding agrees with the study of Tuan et. al, (2016) that explored the impacts of innovation on the different aspect of innovation performance, and their effects to firm performance.

The result from the analysis indicates that risk-taking has a significant influence on the performance of manufacturing firms in FCT. The decision was based on the t-value that exceeds 1.964 ($\beta = 0.394$, t-value = 3.969). Thus, this implies that the null hypothesis is rejected and alternative accepted, which means risk-taking has a significant influence on profitability. The finding agrees with the study of McDowell (2017) that qualitatively assessed the risk propensity of entrepreneurship as cultural innovation for sustainable competitive advantage. Similarly, the finding of Sylvia and Kalsom (2013) revealing that risk-taking has a significant effect on firm performance is similar to the finding of this study.

CHAPTER FIVE

SUMMARY CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

The study assessed corporate entrepreneurship and performance of selected manufacturing firms in FCT, Abuja. The study relied on requisite literature on corporate entrepreneurship and performance. Corporate entrepreneurship is the independent variable and was operationalised into four variables based on extant literature, and performance as the dependent was operationalised using profit. The study was anchored on Schumpeter theory of innovation and Frank risk bearing theory. The empirical studies identified gaps that this study made effort to close, which were in line with the study problem.

Subsequently, the study methodology captured the core approaches that were adopted in arriving at the solution of the problem statement. The study adopted a positivist approach to the study, which allowed for the variables of the study to be tested in line with their contribution to the entire study with the aid of relevant statistical software. The result and discussions provided empirical findings and gave support for rejection or acceptance of the hypothesised problems.

The analysis of the data obtained provided empirical findings that were further compared with existing literature, for similarity and deviations where necessary. The study contributed to knowledge on the concept of corporate entrepreneurship and performance. Thus, the significant findings of the study are summarised here within.

The study findings indicate that proactiveness has no significant influence on performance of manufacturing firms. The study found that management support is vital to improving the profitability of manufacturing firms. The finding support and call for increased management

support towards building an entrepreneurial behaviour in manufacturing firms in FCT, as a strategy to improve performance.

Further, the study found that innovativeness is significant to improving the performance of manufacturing firms in FCT. The need for firms to be innovative is further emphasised in these findings and calls for increased attention to issues that relate to employee's innovation in the organisation. The study also found that risk-taking is vital to improving the performance of manufacturing firms. Firms must also learn to embrace and face their threats, as it will do no good pretending that they are not there.

5.2 Conclusions

The study assessed the effect of corporate entrepreneurship on performance of manufacturing firms in FCT-Abuja. The study has achieved several milestones and has revealed several critical issues that relates to the entrepreneurial behaviour of manufacturing firms in FCT-Abuja. The study generally concludes that corporate entrepreneurship has a significant influence on the performance of manufacturing firms in FCT based on the findings of the study.

The study further concludes that proactiveness has no significant influence on the performance of the selected manufacturing firms in FCT. This is due to the findings of the study that indicates that provocativeness of firms have no significant effect, however, considering causality result should be handled with caution firms are at liberty to determine actions that need them to be proactive.

Further, the study concludes that management support has a significant influence on the performance of manufacturing firms in FCT. The result provided support for this conclusion, as the need to drive further entrepreneurial behaviour among employees demands that they inhabit a culture that transcends from the top management to the lower level.

In addition, the study concludes that innovativeness is vital to improving the performance of manufacturing firms in FCT based on the findings of the study. The finding justified this conclusion and indicated that manufacturing firms need to be innovative in their approach towards their market and operation for them to improve their performance. The finding provided support for the need for firms to adopt an innovative approach in handling their employees and encouraging them to be innovative in the interest of the organisation.

Furthermore, the study concludes that risk-taking is vital to drive improved performance of manufacturing firms in FCT. The study finding supports that for a firm to achieve improved performance in their operation, there is a need for them to take a risk in the interest of their organisation.

5.3 Recommendations

The study has far-reaching findings as enumerated in the findings of the research. Therefore, the study recommends the following based on the findings of the study.

(a) Manufacturing firms in FCT should instead focus most in developing their immediate overall capability, as it will be more useful towards improving their performance and strengthen them towards facing challenges existing in their internal and external environment.
(b) There is a need for increased innovation among manufacturing firms in FCT, as it would help overcome the challenge of weak demand to their products.
(c) There should be increased management support towards developing increased entrepreneurial behaviour among employees of the manufacturing firms in FCT.
(d) Manufacturing firms in FCT should not be risk-averse as it will be useful to drive improved performance and give them a competitive advantage.

5.4 Limitations of the study

(a) The study was limited to a quantitative approach that ensures the study variables are measured numerically using survey research design.

(b) The study sample size for this work was determined using the formula recommended by Taro Yamane (1967). The use of alternative methods in determining the sample size may offer a different sample size.

(c) Further, the performance was measured subjectively. The use of objective measures may provide a different insight into the study.

(d) The study was limited to survey data obtained through a questionnaire instrument. The result may differ involving longitudinal data.

5.5 Suggestions for Further Studies

This research suggests that further studies be carried out using a mixed method triangulation approach. The study identified that there are possible extraneous variables that account for the findings of performance, as such other performance measures could be examined. Furthermore, other researches can identify the variables that may possibly moderate or mediate between corporate entrepreneurship and performance, such as the corporate culture, structural and intellectual capacity should be examined.

5.6 Contribution to Knowledge

This research makes several contributions to knowledge based on the study problem, theory, method and scope that the study covered.

Before now, there has been emphasis on financial credit support, government policies support, and even some have called for special purpose funds for the manufacturing sector, without considering the internal capacity of the firms and that is why despite the

establishment of the Bank of Industry, special tax programmes, local and indigenous incentives etc that manufacturing firms enjoy in Nigeria, they are still unable to gain competitive advantage. This research is an eye-opener to the fact that no matter the amount of financial and technical support, the failure to be innovative, take risk with management support; manufacturing firms would remain struggling and unable to contribute favourably to the gross domestic product of the country.

In addition, the study validates the Schumpeterian theory and the risk-bearing theory to provide a theoretical underpinning or lens through which the study assessed the effect of corporate entrepreneurship on performance of manufacturing firms in FCT. The validation is premised on the core assumption of the theory that indicates that the inward activities of an organisation have the capacity to drive increased performance, which was validated from the empirical evaluation of the problem statement.

Further, the corporate entrepreneurship assessment instrument designed by Hornsby, Holt and Kuratko, (2008) and its suitability for an emerging market was validated in this study. This is relevant as it contributes to the literature on the validity of the CEAI tool for assessing a firm's entrepreneurial behaviour. The need for periodic variations in subjective performance measures was also confirmed as it reflected no bias from the CBM result.

Furthermore, no study has been carried out on the effect of corporate entrepreneurship on the performance of selected manufacturing firms in FCT to the best of the researcher's knowledge. Similar studies in the past have used Lagos, Port Harcourt and Aba and the findings differ on the study variables.

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APPENDIX A

RESEARCH QUESTIONNAIRE

Section A

1. Gender: Male ☐ Female ☐
2. Age: 20 – 30 ☐ 31 – 40 ☐ 41 – 50 ☐ 51 years and Above ☐

Section B

Corporate Entrepreneurship Assessment Instrument (CEAI)

S/N	**Constructs**	SD	D	UD	A	SA
	Innovativeness					
1	Our firm prefers to design its unique new processes and methods of production rather than adapting the methods and techniques of other firms.					
2	Our firm favours experimentation and original approaches to problem-solving rather than imitating methods that other firms have used.					
3	There is a strong emphasis on the marketing of new product lines through an emphasis on R & D, and technological leadership.					
4	In the last three years, our firm has provided new, improved or modified product brands to the market that have been accepted.					
5	Our firm prefers to design its unique new processes and methods of production rather than adapting the methods and techniques of other firms.					
	Risk Taking					
6	Our firm explores the environment gradually via careful, incremental behaviour (rather than bold, wide-ranging acts necessary to achieve the firm's objectives)					
7	The firm prefers to study a problem carefully before expending their resources, as a substitute of being quick to release finances.					
8	When confronted with decision-making situations involving uncertainty, my firm typically adopts a cautious, "wait-and-see" posture in order to minimise the probability of making costly decisions.					

9	Employees have the confidence to take risks when carrying their duties in the organization.					
10	Employees have the confidence to take risks in our organization.					
	Proactiveness					
11	Our organisation respond to activities that competitors identifies immediately, rather than starting things first on their own.					
12	Our firm has a strong tendency to "follow the leader" in acquaint with new products or ideas instead of starting before competitors in introducing unique ideas					
13	Our firm ensures that it does not engage in competitive clatters, desiring "live-and-let-live" stance instead of competitive "undo-the-competitors" posture.					
14	Our firm ensures that employee's need is anticipated and efforts are made to see that they are provided before other competitors.					
15	Our firm is very seldom the first business to introduce new products/services, administrative techniques and operating technologies					
	Management Support					
16	The managers of my firm believe that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue rather than when the CEO and top managers provide the primary impetus for pursuing business opportunities					
17	My firm supports the efforts of individuals and/or teams that work autonomously without relying on senior managers to guide their work.					
18	Managers actively encourage a culture of change, development, learning, and innovation towards 'excellence'.					
19	The managers in our company possess the right leadership qualities to participate in ideation in order to support innovation.					
20	Employees have the opportunity to take part in implementing the changes in our company.					

	Performance					
21	The market share of your company grew during the past 3 years					
22	Your company's operational performance (productivity: accomplished projects or products) in the past three years is good					

23	Over the last 3 years, relative to major competitors, our company's overall sales revenue has been improving					
24	Over the last 3 years, relative to major competitors, our company's overall return on investment has been low					
25	Over the last 3 years, relative to major competitors, our company's overall return on assets has been moderate					

APPENDIX B

Factor analysis

Descriptive Statistics

	Mean	Std. Deviation	Analysis N	Missing N
INNO1	4.1429	.69209	35	0
INNO2	4.0857	.95090	35	0
INNO3	4.1429	.94380	35	0
INNO4	3.7714	.94202	35	0
INNO5	4.1143	.79600	35	0
PROT1	4.0857	1.09468	35	0
PROT2	4.0000	1.00000	35	0
PROT3	3.6857	1.20712	35	0
PROT4	4.3143	.86675	35	0
PROT5	4.0857	1.17251	35	0
RSTK1	3.9429	1.30481	35	0
RSTK2	4.0000	1.16316	35	0
RSTK3	4.1714	.98476	35	0
RSTK4	4.2000	.79705	35	0
RSTK5	4.0000	.93934	35	0
MGST1	4.0857	1.03955	35	0
MGST2	4.1714	.95442	35	0
MGST3	4.2000	.75926	35	0
MGST4	4.2000	.63246	35	0
MGST5	3.9143	1.14716	35	0

Correlation Matrix

		INNO1	INNO2	INNO3	INNO4	INNO5	PROT1	PROT2	PROT3	PROT4	PROT5	RSTK1	RSTK2	RSTK3	RSTK4	RSTK5	MGST1	MGST2	MGST3	MGST4	MGST5
Correlation	INNO1	1.000	.338	.193	.232	.397	.333	.255	.161	.609	.456	.400	.402	.351	.373	.271	.596	.496	.112	.202	.386
	INNO2	.338	1.000	.379	.449	.220	.247	-.031	.050	.466	.389	.265	.452	.549	.365	.263	.498	.437	.383	.215	.142
	INNO3	.193	.379	1.000	.369	.330	.216	.249	.066	.303	.361	.150	.402	.574	.430	.564	.587	.494	.328	.493	.310
	INNO4	.232	.449	.369	1.000	.154	.105	.187	.219	.379	.205	.180	.349	.234	.259	.166	.291	.241	.518	.326	.390
	INNO5	.397	.220	.330	.154	1.000	.697	.074	.314	.373	.399	.205	.572	.387	.287	.157	.379	.283	.010	.012	.172
	PROT1	.333	.247	.216	.105	.697	1.000	.242	.355	.405	.315	.251	.577	.423	.249	.257	.226	.295	.085	.017	.240
	PROT2	.255	-.031	.249	.187	.074	.242	1.000	.122	.407	.326	.293	.354	.239	.406	.658	.170	.277	.194	.279	.461
	PROT3	.161	.050	.066	.219	.314	.355	.122	1.000	.153	.144	.306	.293	.071	-.086	.078	.092	.074	.167	.239	.384
	PROT4	.609	.466	.303	.379	.373	.405	.407	.153	1.000	.667	.614	.759	.486	.588	.614	.426	.360	.349	.258	.560
	PROT5	.456	.389	.361	.205	.399	.315	.326	.144	.667	1.000	.734	.712	.471	.516	.561	.307	.328	.443	.254	.530
	RSTK1	.400	.265	.150	.180	.205	.251	.293	.306	.614	.734	1.000	.640	.534	.407	.480	.307	.386	.398	.335	.645
	RSTK2	.402	.452	.402	.349	.572	.577	.354	.293	.759	.712	.640	1.000	.616	.476	.619	.316	.318	.366	.240	.507
	RSTK3	.351	.549	.574	.234	.387	.423	.239	.071	.486	.471	.534	.616	1.000	.630	.541	.646	.625	.307	.368	.326
	RSTK4	.373	.365	.430	.259	.287	.249	.406	-.086	.588	.516	.407	.476	.630	1.000	.629	.405	.379	.467	.385	.309
	RSTK5	.271	.263	.564	.166	.157	.257	.658	.078	.614	.561	.480	.619	.541	.629	1.000	.241	.295	.371	.347	.464
	MGST1	.596	.498	.587	.291	.379	.226	.170	.092	.426	.307	.307	.316	.646	.405	.241	1.000	.755	.127	.376	.278
	MGST2	.496	.437	.494	.241	.283	.295	.277	.074	.360	.328	.386	.318	.625	.379	.295	.755	1.000	.276	.283	.282
	MGST3	.112	.383	.328	.518	.010	.085	.194	.167	.349	.443	.398	.366	.307	.467	.371	.127	.276	1.000	.649	.392
	MGST4	.202	.215	.493	.326	.012	.017	.279	.239	.258	.254	.335	.240	.368	.385	.347	.376	.283	.649	1.000	.592
	MGST5	.386	.142	.310	.390	.172	.240	.461	.384	.560	.530	.645	.507	.326	.309	.464	.278	.282	.392	.592	1.000

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.983	39.915	39.915	7.604	38.019	38.019	3.680	18.400	18.400
2	1.971	9.853	49.768	1.578	7.892	45.911	3.406	17.030	35.430
3	1.843	9.216	58.984	1.458	7.292	53.204	2.365	12.826	48.256
4	1.452	7.258	66.241	1.003	5.016	58.219	2.193	11.963	60.219
5	1.168	5.840	72.082						
6	1.108	5.542	77.623						
7	.861	4.307	81.930						
8	.629	3.147	85.077						
9	.591	2.957	88.034						
10	.462	2.311	90.344						
11	.420	2.101	92.446						
12	.387	1.934	94.380						
13	.256	1.279	95.659						
14	.220	1.102	96.761						
15	.205	1.024	97.785						
16	.149	.747	98.531						
17	.105	.523	99.054						
18	.081	.407	99.462						
19	.068	.341	99.803						
20	.039	.197	100.000						

Extraction Method: Principal Axis Factoring.

Descriptive Statistics

	Mean	Std. Deviation	Analysis N	Missing N
PERF1	3.9714	1.22440	35	0
PERF2	4.0000	.93934	35	0
PERF3	4.0571	.87255	35	0
PERF4	4.3429	.83817	35	0
PERF5	4.0571	1.08310	35	0

Correlation Matrix

		PERF1	PERF2	PERF3	PERF4	PERF5
Correlation	PERF1	1.000	.742	.415	.497	.334
	PERF2	.742	1.000	.574	.598	.145
	PERF3	.415	.574	1.000	.254	.308
	PERF4	.497	.598	.254	1.000	.237
	PERF5	.334	.145	.308	.237	1.000
Sig. (1-tailed)	PERF1		.000	.007	.001	.025
	PERF2	.000		.000	.000	.204
	PERF3	.007	.000		.071	.036
	PERF4	.001	.000	.071		.085
	PERF5	.025	.204	.036	.085	

Communalities

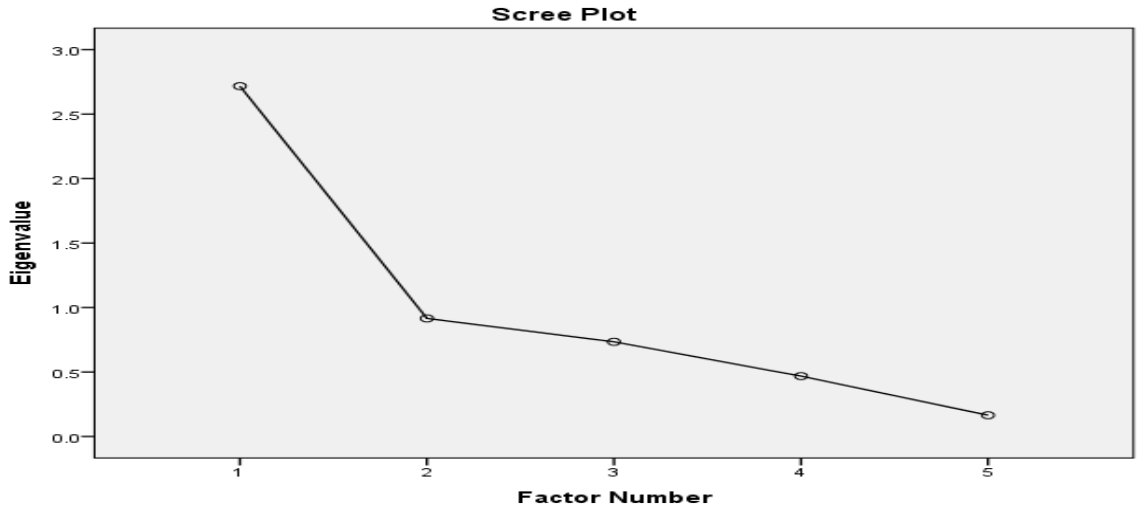
	Initial	Extraction
PERF1	.609	.653
PERF2	.733	.845
PERF3	.415	.320
PERF4	.405	.371
PERF5	.252	.109

Extraction Method: Principal Axis Factoring.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.717	54.344	54.344	3.297	65.950	65.950
2	.916	18.312	72.656			
3	.734	14.683	87.339			
4	.468	9.366	96.706			
5	.165	3.294	100.000			

Extraction Method: Principal Axis Factoring.



APPENDIX C

Reliability of Scale

Scale: Innovativeness Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.665	4

Item Statistics

	Mean	Std. Deviation	N
INNO1	4.1429	.69209	35
INNO2	4.0857	.95090	35
INNO3	4.1429	.94380	35
INNO4	3.7714	.94202	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
INNO1	12.0000	4.824	.329	.666
INNO2	12.0571	3.467	.545	.524
INNO3	12.0000	3.824	.430	.609
INNO4	12.3714	3.652	.490	.566

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.1429	6.303	2.51048	4

Scale: Proactiveness Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.654	4

Item Statistics

	Mean	Std. Deviation	N
PROT1	4.0857	1.09468	35
PROT3	3.6857	1.20712	35
PROT4	4.3143	.86675	35
PROT5	4.0857	1.17251	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PROT1	12.0857	5.669	.482	.552
PROT3	12.4857	6.257	.276	.703
PROT4	11.8571	6.185	.567	.523
PROT5	12.0857	5.434	.471	.560

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.1714	9.382	3.06293	4

Scale: Risk Taking Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.813	4

Item Statistics

	Mean	Std. Deviation	N
RSTK1	3.9429	1.30481	35
RSTK2	4.0000	1.16316	35
RSTK4	4.2000	.79705	35
RSTK5	4.0000	.93934	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
RSTK1	12.2000	6.047	.618	.788
RSTK2	12.1429	6.185	.722	.719
RSTK4	11.9429	8.408	.578	.798
RSTK5	12.1429	7.361	.681	.748

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.1429	11.714	3.42261	4

Scale: Management support Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.748	5

Item Statistics

	Mean	Std. Deviation	N

MGST1	4.0857	1.03955	35
MGST2	4.1714	.95442	35
MGST3	4.2000	.75926	35
MGST4	4.2000	.63246	35
MGST5	3.9143	1.14716	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
MGST1	16.4857	6.728	.529	.698
MGST2	16.4000	6.894	.570	.681
MGST3	16.3714	8.182	.439	.729
MGST4	16.3714	7.946	.650	.682
MGST5	16.6571	6.526	.481	.727

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.5714	10.664	3.26556	5

Scale: Performance Scale

Reliability Statistics

Cronbach's Alpha	N of Items
.805	4

Item Statistics

	Mean	Std. Deviation	N
PERF1	3.9714	1.22440	35
PERF2	4.0000	.93934	35
PERF3	4.0571	.87255	35
PERF4	4.3429	.83817	35

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PERF1	12.4000	4.600	.688	.735
PERF2	12.3714	5.240	.834	.652
PERF3	12.3143	6.751	.485	.815
PERF4	12.0286	6.676	.539	.794

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
16.3714	9.711	3.11624	4

APPENDIX D

Normality Test of variables

	Descriptive Statistics					
		N	Skewness		Kurtosis	
Construct	Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Innovativeness	INNO1	178	-1.637	.080	4.134	.159
	INNO2	178	-1.044	.080	1.879	.159
	INNO3	178	-1.223	.080	1.901	.159
	INNO4	178	-1.114	.080	1.520	.159

	Descriptive Statistics					
		N	Skewness		Kurtosis	
Construct	Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Management Support	MGT1	178	-.613	.080	-.614	.159
	MGT2	178	-.682	.080	-.167	.159
	MGT3	178	-.779	.080	.004	.159
	MGT4	178	-.738	.080	-.087	.159
	MGT5	178	1.083	.080	1.135	.159

Source: SPSS Output, 2019

	Descriptive Statistics					
		N	Skewness		Kurtosis	
Construct	Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Procativeness	PRO1	178	-.156	.080	-1.140	.159
	PRO2	178	-.007	.080	-1.082	.159
	PRO3	178	-.230	.080	-.942	.159
	PRO4	178	-.938	.080	.482	.159

Source: SPSS Output, 2019

	Descriptive Statistics					
		N	Skewness		Kurtosis	
Construct	Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Risk taking	RTK1	178	-.504	.080	-.754	.159
	RTK2	178	-.140	.080	-.915	.159
	RTK3	178	-.131	.080	-1.113	.159
	RTK4	178	-.618	.080	-.489	.159

Source: SPSS Output, 2019

Table 16-5

	Descriptive Statistics					
		N	Skewness		Kurtosis	
Construct	Variables	Statistic	Statistic	Std. Error	Statistic	Std. Error
Performance	PRF1	178	.037	.080	-1.109	.159

	PRF2	178	.211	.080	-.951	.159
	PRF3	178	.175	.080	-.986	.159
	PRF4	178	.218	.080	-.939	.159

Source: SPSS Output, 2019

APPENDIX E

Collinearity of variables

Formative constructs	**VIF values**
Innovativeness	2.842
Management support	2.556
Risk taking	2.185
Procativeness	2.502
Performance	2.414

APPENDIX F