

**INNOVATION STRATEGY AND COMPETITIVENESS OF FINTECH COMPANIES IN
NAIROBI, KENYA**

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DECLARATION

I declare that this research project is my original and has not in its entirety or in part been presented to this or any other university.

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TABLE OF CONTENTS

| | |
|---|-------------|
| DECLARATION..... | ii |
| LIST OF TABLES | vii |
| ABBREVIATION AND ACRONYMS | viii |
| ABSTRACT..... | ix |
| CHAPTER ONE: INTRODUCTION..... | 1 |
| 1.1 Background of the Study | 1 |
| 1.1.1 Innovation Strategy | 3 |
| 1.1.2 Concept of Competitiveness | 4 |
| 1.1.3 Fintech Companies in Kenya | 6 |
| 1.2 Research Problem | 7 |
| 1.3 Research objective | 10 |
| 1.4 Value of the study | 10 |
| CHAPTER TWO: LITERATURE REVIEW | 12 |
| 2.1 Introduction..... | 12 |
| 2.2 Theoretical Review | 12 |
| 2.2.1 Schumpeter Theory of Innovation | 12 |
| 2.2.2 Resource Based Theory | 13 |
| 2.2.3 Diffusion of Innovation Theory | 15 |
| 2.3 Innovation Strategy and Firm Competitiveness..... | 17 |

| | |
|---|-----------|
| CHAPTER THREE: RESEARCH METHODOLOGY | 24 |
| 3.1 Introduction..... | 24 |
| 3.2 Research Design..... | 24 |
| 3.3 Population | 24 |
| 3.4 Data Collection | 25 |
| 3.5 Data Analysis | 25 |
| CHAPTER FOUR:DATA ANALYSIS, RESULTS AND DISCUSSION | 27 |
| 4.1 Introduction..... | 27 |
| 4.2 Response rate | 27 |
| 4.3 Demographic Information..... | 28 |
| 4.3.1 Level of Management | 28 |
| 4.3.2 Length of Service..... | 29 |
| 4.3.3 Number of Employees | 30 |
| 4.3.4 Age of the Organization..... | 30 |
| 4.4 Innovation Strategies | 31 |
| 4.4.1 New product Development | 32 |
| 4.4.2 Improvement of Existing Product..... | 33 |
| 4.4.3 Improvement of Competitor Ideas | 34 |
| 4.4.4 Process Innovation..... | 35 |
| 4.4.5 Marketing Innovation..... | 36 |

| | |
|---|-----------|
| 4.5 Organization Competitiveness | 37 |
| 4.6 Diagnosis Test..... | 38 |
| 4.6.1 Normality | 38 |
| 4.6.2 Multicollinearity | 39 |
| 4.6.3 Serial Correlation..... | 40 |
| 4.7 Regression Analysis..... | 40 |
| 4.7.1 Product development and Competitiveness | 40 |
| 4.7.2 Product Improvement and Competitiveness | 42 |
| 4.7.3 Competitor Ideas and Competitiveness | 43 |
| 4.7.4 Process Innovation and Competitiveness..... | 44 |
| 4.7.5 Marketing Innovation and Competitiveness | 45 |
| 4.8 Composite Regression Analysis | 46 |
| 4.8.1 Summary Model..... | 46 |
| 4.8.2 ANOVA | 47 |
| 4.8.3 Regression Coefficients | 47 |
| 4.8 Discussion of the Findings..... | 49 |
| CHAPTER FIVE:SUMMARY, CONCLUSION AND RECOMMENDATIONS | 52 |
| 5.1 Introduction..... | 52 |
| 5.2 Summary..... | 52 |
| 5.3 Conclusion | 53 |

| | |
|--|-----------|
| 5.4 Recommendation for Policy | 54 |
| 5.5 Limitation of the Study | 54 |
| 5.6 Recommendation for Further Research | 55 |
| APPENDICES..... | 61 |
| Appendix 1: Letter to the Respondents | 61 |
| Appendix II: Questionnaire | 62 |

LIST OF TABLES

| | |
|--|----|
| Table 4. 1: Response Rate..... | 27 |
| Table 4. 2: Managerial Level of Respondents | 28 |
| Table 4. 3: Length of Service..... | 29 |
| Table 4. 4: Number of Employees | 30 |
| Table 4. 5: Age of the Organization..... | 31 |
| Table 4. 6: New Product Development..... | 32 |
| Table 4. 7: Improvement of Existing Product..... | 33 |
| Table 4. 8: Improvement of Competitor Product..... | 34 |
| Table 4. 9: Process Innovation..... | 35 |
| Table 4. 10: Marketing Innovation | 36 |
| Table 4. 11: Firm Competitiveness..... | 37 |
| Table 4. 12: Tests for Normality..... | 38 |
| Table 4. 13: Test for Multicollinearity..... | 39 |
| Table 4. 14: Serial Correlation..... | 40 |
| Table 4. 15 Model Summary | 41 |
| Table 4. 16 Product development Coefficient..... | 41 |
| Table 4. 17 Model Summary | 42 |
| Table 4. 18 Product improvement Coefficient..... | 42 |
| Table 4. 19 Model Summary | 43 |
| Table 4. 20 Computer Ideas Coefficient..... | 43 |
| Table 4. 21 Model Summary | 44 |
| Table 4. 22 Process Innovation Coefficient..... | 45 |
| Table 4. 23 Model Summary | 45 |
| Table 4. 24 Marketing Innovation Coefficient..... | 46 |
| Table 4. 25 : Model Summary | 46 |
| Table 4. 26: Anova..... | 47 |
| Table 4. 27: Coefficients..... | 48 |

ABBREVIATION AND ACRONYMS

| | | |
|-------|---|--|
| CBK | - | Central Bank of Kenya |
| DOI | - | Diffusion of Innovation Theory |
| EIMA | - | European Innovation Management Academy |
| IT | - | Information Technology |
| OECD | - | Organization of Economic Cooperation and Development |
| P2P | - | People to People |
| R & D | - | Research and Development |
| RBV | - | Resource Based View |
| SME | - | Small and Medium Enterprises |
| SPSS | - | Statistical package for Social Scientist |

ABSTRACT

The objective of the research was to determine the effect of innovation strategies on the competitiveness of fintech companies in Kenya. The independent variables were proxied by five variables, namely; new product development, product improvement, improvement on competitor ideas, process and marketing innovation. The research adopted the descriptive research design in a population of 38 fintech firms in Nairobi, Kenya. The new product development innovation strategy among the fintech firms involved being able to offer products that unique and that have been innovated and produced internally within the organization and more so are tailored to be user friendly. Similarly, to increase the competitiveness of their firms, the popular activities undertaken within the quest to introduce new products involved increasing their product delivery speed, reliability and employee's competence through training. A positive correlation was also found between the variables and the innovation strategies explained 67.2% of the fintech firm's competitiveness. Further, the findings reveal that two of the variables were significant in influencing the competitiveness of the firms because their p-values were less than 0.05. The significant variables were product development and product improvement. Otherwise, the improvement of competitor ideas, process innovation and marketing innovation was found not to be significant factor on the fintech firms' competitiveness. The results reveal that new product innovation and improvement on existing product were found to significantly affect the competitiveness of a firm. Therefore, the assertion that the ability of a firm to introduce new and imitable products or be able to introduce new and smaller changes on the existing product reinforce the view that internal sources that cannot be replicated forms an important source of competitive advantage to a firm. The research finds that product and process innovation had a remarkable effect on the competitiveness of the fintech firms in Kenya and consequently the research recommends that greater attention be directed towards improvement of the organization process, both the back and front office functions to meet customer satisfaction. In addition, the study recommends that fintech firms continuously endeavor to come up with new products or improve on the existing ones since majority of the products are digital based and consequently continuously change.

Keywords: Fintech firms, innovation, competitiveness, product, process

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

With globalization, as a result of rapid developments in technology and consumer demands, businesses in developed countries are constantly experiencing pressure. In the production of commodities that satisfy the present competitive demand, relevant fields such as research and development, software development, architecture, education, engineering, management and marketing are increasingly becoming important (Ale Ebrahim, Ahmed, & Taha 2020). In addition, international exchange and global supply chains control the production of international norms, and thus the success of businesses and countries depends on their technological capability and innovative knowledge orientation (Amarakoon, Weerawardena & Verreyne, 2018). The answer to solve social issues such as unemployment, environmental destruction, hunger and health, innovation has been proposed as the key area that should be considered in developing countries. Today, innovation's role and importance has become more significant than economic achievement. With the advent and significant penetration of mobile technology, it follows those introducing financial innovations that utilize the mobile technology to increase financial penetration can also be helpful in achievement of both national and global objectives. At the firm level, the management should be able to come up with relevant innovations that would provide necessary competitive edge (Urbancova, 2018).

Schumpeter innovation Theory and Resource based View (RBV) are the theories underpinning this study. Schumpeter (1934) believes that very creative entrepreneurs generate new prospects for new profits. Innovation is becoming a revolutionary commodity on the market that is imitated by rivals as a result of the super-normal profits earned by the originator of the innovation.

Resource-based perspectives are another theory and according to Oliver (1997), it is argued that if an organization is able to control its resources properly, then that organization will gain long-term success. The value of interior-firm-specific expertise, capabilities and ability in establishing a competitive advantage is highlighted by resource-based theory (Shejoro, 2016). RBV looks at firms' strengths and capabilities to achieve superior returns and obtain competitive advantages (Amit & Shoemaker, 1993). These two hypotheses is linked to the research because they stress the importance of innovation in a competitive business environment and how it becomes a source of competitive advantage resource. Therefore, an enterprise has to use the available tools for competitive advantage to overcome competition in this often turbulent and dynamic environment.

In Kenya, Fintech companies are expected to make substantial changes due to innovation strategies that will allow sustained competition on the market. Strong rivalry among firms has also made it a requirement for Fintech firms to develop their operations with innovative technologies generated by extensive potential for innovation. Therefore, as interlinked businesses, it is important to have distinct clear line of financial services approaches that is very special in the current market that is characterize by stiff competition. This calls for Fintech companies to embrace change in delivery of services in a rapidly changing technological world with a rapidly changing customer demand and taste to more sophisticated standards (King, 2010). In regard to satisfying high quality and sophisticated customer demands while remaining competitive in the market, these companies may thusly achieve this through market, process and product or service innovation. In Kenya, the number of Fintech enterprises have increased over the last decade and consequently leading to an increased the level of competition. There is need

therefore to develop unique financial development that is customer focused in order to remain competitive in relation to other firms in the same business.

1.1.1 Innovation Strategy

Many scholars and research organizations have come up with different definitions of innovation strategy with Drucker defining innovation as an action that provides a basis with a novel capability with the intention of generating welfare and it creating resource (Drucker, 1993). Innovation is described as an "effective use of a new process, service, product, organization or new business model that is revolutionary in the company, to a market or new on the planet" (European Innovation Management Academy, 2016). The business dictionary also describes innovation as a mechanism by which a concept or invention is transformed into a profitable product or service (Business Dictionary, 2016). Probably the most detailed and generally agreed description of the term of innovation according OECD an innovation strategy is the use of a newly or expressly invented commodity or a mechanism, marketing system or a new institutional operating method that promotes convenience in running of business activities (OECD-Eurostat, 2005).

Crossan and Apaydin (2010) proposed that innovation strategies emanate from the desire to offer ne quality products, improve employee safety and health and also to preserve and conserve the environment. Innovation strategy as conceptualized by Nicolau and Santa-María (2013) points out that it is tailored towards meeting a preconceived customer need or meeting an unmet customer need. This point is the same as that of advanced by Song (2009) who argued that independent of the innovation strategy, they are all meant to enhance business performance or manage a gap emanating from changes in the business environment. Morgan and Berthon (2008) operationalized innovation strategy to include the capacity of an organization to analyze present

products or processes with a view to searching for improvements, desire by an organization to improve processes with a view to reducing costs and also controlling cost to the customer. Further, innovation strategy is concerned with reduction of processes with the aim of managing the time taken for a unit production and also to improve products and processes that are currently in use in the organization (Metz, 2016).

1.1.2 Concept of Competitiveness

Competitiveness is a vital element in the new competitive economic climate for the sustainability, development and performance of a company (Ahmad et al., 2010). A clear description of the term remains elusive, considering the fact that there is consensus and appreciation of the need and value of competition for businesses and economies. This may be due to the fact that a multifaceted and uncertain idea of competition makes it impossible to come up with a widely agreed meaning (Dimoska & Trimcev, 2012). This has resulted in broad and varying competitiveness concept definitions depending on the school of thought attributed to it. Kiveu, Namusonge and Muathe (2019, P.14) define “competitiveness as the capacity of an organization to improve its shares in the market and its growth while keeping its market position for longer time”. Firm competitiveness is defined by Schwab (2018) as, "the potential of a specific organization to perform effectively in a given market setting." Competitiveness is thus based on dynamism, ingenuity and the potential to adjust and adapt. On the other hand, Cetindamar and Kilitcioglu (2013) regard competitiveness as a company's ability to offer better offering of a product or service that a firm deal with than other competing organizations. He argues that for them to improve and protect their place in the industry, firm competitiveness is necessary.

Competitiveness of a firm offers the opportunity to retain a market advantage by delivering premium goods on schedule and at reasonable prices (Bloodgood, 2019). Therefore, in order for to be competitive, firms need to be respond to market developments by improving their creative capability. Santana-Sarmiento et al. (2019) submits that competitiveness increases the ability of businesses to sell goods that satisfy consumer needs while maintaining overtime income that enable the business to prosper and succeed in the market. A competitive firm is expected to generate higher revenues and growth in earnings, increased market share, stronger investment performance, and greater market penetration and distribution power relative to non-competitive firms. These businesses are distinguished by lower manufacturing costs that contribute to greater profitability and have the potential to compete on the market while fulfilling market requirements. In the face of competition, these variables guarantee steady profitability and a growing market share (Barge-Gil & Modrego, 2011).

From the use of basic metrics to comprehensive indices, different measures of competitiveness have been suggested (Dijkstra, Annoni, & Kozovska, 2011). Competitiveness has been closely associated with sustainable performance and superior returns. According to Dupeyras and MacCallum(2013), financial results can be used to assess firm or sector performance, hence a competitive organization implies strong financial performance. Several financial metrics, including revenues, return on investments and turnover, are common measures business competitiveness. The value of metrics that follows financial performance is the simplicity of in which the same goal is to be attained. Several non-financial metrics have also been used to show competitiveness, aside from financial metrics, including industry measures such as the company's market position and market share growth (Gunday et al., 2011). The current study

will use volume of sales, productivity, end of financial period results and market share in assessing the competitiveness position of the firm.

1.1.3 Fintech Companies in Kenya

Fintech companies are financial technology firms that define and develop financial services in digital platforms (Micu & Micu, 2016). Therefore, Fintech companies comprise of companies that use innovation and new technology to favourably compete in the traditional financial institutions and perform its intermediations function and delivery of financial services. The African market contains all necessary circumstances promising to serve as a stable foundation for Fintech companies' growth and development of financial systems (McDowell, 2016). Mobile money services have been used in Kenya for eight years, allowing people to make P2P payments by simply texting. M-Pesa is leading the pack as Kenya's first mobile money provider. As a result of the current opportunities, there has been an increase in Fintech company startups, focusing on providing financial services in different segments and transforming the financial services provision sector to ensure inclusive growth.

Fintech companies has a main role in the Kenyan economy and due to the rapid growth in this industry, Kenya is in the run to become one of the highest ranked mobile money economies globally by 2020. Fintech companies are facing a competitive world especially in payment technologies, lending, retail banking and SME banking, and the technology startups against the traditional factors (McDowell, 2016). However, there exists a great potential for technological innovations in the finance sector. Sectors such as health care also use this technology to enhance their business process and inspire innovation. Fintech companies have cost effective operations thus will enjoy a competitive edge since they are cost effective and have fewer regulations as

compared to the traditional finance sector. Fintech companies will pave way for more transparent and efficient operations through the digital innovation platform.

The untapped financial market in Kenya is large and thus provides an opportunity for the thirty-eight Fintech companies in the country to capture and enhance their productivity. Nonetheless, the growth in the number of companies in the industry, globalization, financial innovations development by commercial banks (Pesapal) and the increasing customer demands has led to a higher level of competition for profitability and market share. For these firms to remain to remain competitive in the Kenya market, it needs to adopt innovative strategies that will counter the changing business environment.

1.2 Research Problem

The competitiveness position of technology based organizations is considered to be anchored on temporary foundation because of the rate at which innovations is being introduced in the market which changes existing business position frequently (Doğan, 2016). It is expected that an innovation strategy adopted by a company should be able to generate sustainable competitiveness over both and short and medium term period, but the same cannot be said in a globalised business environment that depends in a information technology infrastructure, like the fintech companies. Shabbir (2015) submits that technology based need to maintain their competitive advantage, they need to continuously innovate while being guided by the dynamic innovation strategy. The innovation strategy should incorporate how the firm will develop new products, explain on how to improve on existing products or borrow from existing competitor ideas.

The Fintech companies in Kenya have grown over the last two decades as a result of the proliferation of the digital technology that has been used as a catalyst for development.

According to Ndemo and Weiss (2017), effective use of the digital technology in Kenya has the potential to change the social, economic and political landscape of the country due to its capacity to integrate technology and a nations development. However, the scholars observe that the lifespan of majority of Kenyan fintech firms is short due to the inability to continuously come up with new commodities and a lack of differentiation in the product offering. With the changes in the business landscape that has come about with Covid-19, the use of digital technology has shown that many of the in-office duties can be done in remote locations and this brings forth opportunities to the fintech markets. However, since the number of fintech firms need not set base in Kenya and can offer services while in foreign countries, the level of competition to the locally established firms will increase. Under such a situation, it becomes necessary that the fintech firms adopt an appropriate innovation strategy to remain competitive in the foreseeable future. Indeed, the role of innovation strategy on the competitiveness of businesses has consequently attracted the attention of different scholars.

Nylén and Holmström (2015) sought to determine the role of innovation in the digital field as a means of examining product and service innovation emanating from the adoption of the digital technology in Sweden. The researchers endeavored to develop a framework to assist managers in ongoing digital improvements. The framework highlight that a digital innovation need to consider the user ability of the product, aesthetic and engagement capability as important measures of its acceptability. The study used a desktop review of extant literature in formulating the framework. However, the study was based in Sweden and did not seek to evaluate the nexus between innovation strategy and the performance of fintech firms. Pavlou and El Sawy (2015) investigated how IT leveraging competence is a source of improved performance in the turbulent business environments for firms engaged in development of new products in Indonesia. The

results reveal that IT competence influences the competitive advantage as being mediating links of functional competencies and dynamic capabilities – more so in a high turbulence environment. Though the research sought the role of IT on competitiveness of cross-industry firms, the environment of investigation was in a high uncertainty unlike the current research and also was dealing in a new product development.

Karanja (2011) sought to assess how United Bank of Africa Ltd competitive advantage emanated from the innovation strategies adopted. The results was that product and process performance of the bank were significant in influencing the competitive advantage of the bank and consequently led to stability and growth of the bank in the unpredictable and volatile financial environment. The research however employed a case study research design as opposed to the present research that adopted a cross-sectional research design. Chemitei (2012) examined the influence of financial innovation on the success microfinance institutions in Kenya. The results reveal that adoption of appropriate financial innovation that is anchored in digital platforms in partnership with customers meeting their needs effectively resulted in improved performance.

The role of innovation strategies on organizational outcomes has received significant attention both locally and internationally. However, the Fintech sector, especially in Kenya is a new concept that has come about due to the penetration of the mobile technology in Kenya. As a result, studies on the effect of innovation strategy on the competitiveness of Fintech companies are still limited. Further, unlike the previous studies that have investigated innovation strategy as proxied by new product development, improvement of existing products, competitor ideas, process improvement and marketing innovation; has not received adequate attention. Considering that the fintech sector in Kenya is fast developing and the level of competition is

changing in the same pace, it is critical to evaluate the impact of innovation strategies on competitiveness of the firms. Consequently, the research will seek to answer the following research question; what is the relationship between innovation strategy and competitiveness of Fintech companies in Kenya?

1.3 Research objective

The objective of this study was to establish the relationship between innovation strategy and competitiveness of Fintech companies in Kenya.

1.4 Value of the study

The investigation is of different stakeholders interested on the financial technology developments in the country. Fintech Companies in Kenya have a major role in the state's economy hence their level of performance is very crucial to the government. That study findings and recommendation informs policy formulation in the country since policy makers such as the CBK and the Ministry of industrialization is able to formulate policies that encourage digital based innovation based by extending tax rebates for, say the first five years. Likewise policy makers will identify some of the policy decisions of encouraging merging of the small start-up fintech companies to increase their adaptability in the market.

To the management of Fintech Companies, the study provides information on the response strategies assumed by the company to deal with the environmental challenges in the payment industry. Due to increased customer demand on quality product and services, the study would inform the management of Fintech companies on the most appropriate and efficient innovation strategies that may be implemented to attain sustainable competitiveness

To scholars and other researchers, this study may be helpful in filling the existing research gap on innovation strategies of Fintech companies to challenges in the environment in the payment

industry in Kenya. Consequently, the research highlights the different technological challenges in the industry and the consistent innovation strategies hence contributing significantly to the already existing body of knowledge and theory building. It thus acts as a point of reference for future studies in the strategic management field especially on the concept of innovation strategies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The section highlights the literature relating to study objectives objective which was to establish the effect of innovation strategies on the competitiveness of Fintech companies in Nairobi, Kenya. This part presents theories that anchor the research and further covers the empirical studies that are relevant to the research subject area. Further, the chapter presents the conceptual framework that guides the researcher in differentiating the study variables.

2.2 Theoretical Review

This segment discusses theories that are linked to the research objectives. The discussions relating to the effect of innovation strategies on competitiveness is guided by two theories, which include; Schumpeter theory of innovation and the Resource Based Theory (RBV). This part explains the theories and indicates their significance to the research.

2.2.1 Schumpeter Theory of Innovation

This was modelled in 1934 by Joseph Alois Schumpeter who is considered as a great economists of the twentieth century due to his contribution in the field of innovation and entrepreneurship. According to the innovation theory, consumer preferences is already given and therefore does not change spontaneously and therefore cannot result in an economic change since consumers play a passive role in the economic change process. Clemence (2009) while referring to the work of Schumpeter asserts that the development of an organization or a country is substantially changed by innovation that is divided into five types. These innovation types according to Ebner, (2009) include the launch of new product that has not been used before, advanced methods of

production, developing new market in which the organization products were not operating in, establishing new raw material supply of raw materials or semi-finished goods. Finally, innovation involves the creation of monopolistic position held by a competitor.

Schumpeter (1934) highlight that an entrepreneur, such as Fintech companies that develop new financial solutions, is one who innovates and creates a new combination in the economy's business environment and thus are the ones responsible for maintaining the capitalist economy. Indeed, Schumpeter is of the view that anyone with the intention of making a profit has to innovate and that innovation is a key ingredient of competitiveness and economic dynamics in a country. Ülgen (2014) while reviewing Schumpeter's works point out that the actual innovation does not have an impact but rather the spread of the innovation has a much improved performance on the state of an economy that in the first few years, the overall economy performance as measured by inflation, exchange rate stability and employment opportunities created will hardly be noticeable since it will not have diffused wide and far. As in the case of Fintech companies, innovation such as buying of top up credit, bulk sending of money, payment of different bills using one single SMS code will not be noticeable nor generate significant economic benefit unless it is adopted by many consumers. Therefore, the ability of a Fintech company to introduce a product or service that will receive high uptake among consumers will influence its competitiveness and growth, a position that was posited by Schumpeter in his theory of innovation.

2.2.2 Resource Based Theory

These concepts were originally modelled by Penrose (1959) and Wernerfelt (1984) and later improved by Barney (1991). The RBV considers an enterprise to be a particular set of substantial client-managed intangible and tangible resources that allow the entity to devise and put in place

plans that maximize its competitiveness and performance. However, according to Barney (1991) a resource will be a source of competitiveness if it has certain unique attributes that distinguishes them from those of other players in the market. These involve characteristics that are crucial to create a long lasting competitive edge, including the need for a resource to be valuable; it must be scarce across future and current competitors; it must be imperfectly imitable; and it should also not provide technically comparable alternatives for established goods. However, since resources cannot be transferred and completely imitated, the product markets are expected to be stable and constant (Barney, 1991, Kraaijenbrink *et al.*, 2010).

Consequently, despite a firm establishing and identifying necessary internal resources necessary to create competitive advantage, there for a strategy that elaborates and covers the core competencies of the company competitive priorities and customer driven strategies. This is because, as Boyer, et al., (2005) highlights, organizational capabilities are not adequate as a source of competitive advantage but rather there is need to combine these internal capabilities with a view to creating a synergy and result in organizational performance. Therefore, the capacity of an organization to orient its operations in terms of adapting to the external environment through innovation, building internal and external environment, improving on existing products that are available internally or available with competitors is expected to result in improved competitive advantage.

However, the RBV has attracted criticism owing to its static nature and lacks the ability of a company to adjust procedures and reconfigure resources with a view to increasing its productivity (Vera, Crossan & Apaydin, 2011). In fact, RBV does not adequately clarify how businesses build and implement their capabilities and resources in order to achieve a competitive

market place. The theorists advancing the dynamic capability principles have explored the possible ways of doing away with this constraint by suggesting that rather than having a company considered as ownership of capabilities and resources, this feature alone cannot put a company in a pivot position to win a bigger share in a competitive market and instead, they propose that a firm should have a strategic approach that executes resources and capabilities that suits the operational environment of the company and will help spearhead market penetration (Eisenhardt & Martin, 2000).

2.2.3 Diffusion of Innovation Theory

Rogers (2003) has advanced the Diffusion of Innovation (DOI) theory and suggests that there's a sequence in which an idea spreads across a specific social system or population. It is claimed that a new idea, behaviour or substance emerges not immediately in a social system, but rather through a process that allows certain people to adopt innovation more successfully than others. The result of this decision is that persons embrace new idea, behaviour as part of a social system because of the need to comply with what other companies in the same sector provide. The secret to acceptance is, however, that the consumer must see the concept, behaviour or substance as being unique or creative and this is what makes it possible to mitigate it.

The diffusion of innovation philosophy focuses primarily on how potential adopters interpret an invention as a perceived advantage or disadvantage; thus, some of the considerations in the DOI method shape a framework: creative, dynamic and compatible. However, businesses that intensively use a specific technology are often the main candidates for the early adoption of the next generation of technology. Hervas-Oliver, Ripoll and Moll (2014), however, submit that a

firm should be capable in different ways of innovating continuously, as no single innovation is sufficient to influence a firm's performance.

Lu, Quan and Cao (2009) emphasize that while the DOI theory is used to understand the propagation of any new idea, action or object, the theory is often used to explain the diffusion of technology in a society. The authors point out that there are key features of an innovation that will influence the acceptability of an innovation. The key characteristics of innovation are receptive relative rewards, consistency and difficulty, testability and observability (Rogers, 2003). Nevertheless, it should be remembered that these characteristics of innovation do not exclude each other but function together. Similarly, the diffusion process will be influenced by the characteristics of an innovation, social system that it flows and the communication channels through which it passes. The theory therefore suggests that innovation in an organization that clearly and unequivocally has a vantage point over the existing technology is easier to adopt and implement (Kaminski, 2011).

Nonetheless, Lundblad and Jennifer (2015) suggest that although innovation diffusion theory may characterize the innovation decision-making process in organizations, it cannot clarify how innovation's features work to influence its acceptance within organisations, or whether or not organizational features like size or the market affect its adoption. This theory is appropriate in the current study because as a Fintech firm comes up with innovations that enhance its operational capabilities from the sourcing of required input to the production of the final product, this will lead to improved performance since the firm will be able to compete better in the market.

2.3 Innovation Strategy and Firm Competitiveness

Business organizations have been prompted to develop innovations through development and utilization of specific resources and competences. Only if the company is able to innovate, then is it that innovation happens (Laforet 2011). In the implementation of an organization strategy, there is need for the firm to establish appropriate innovation capability through the combination of valuable assets since innovation involves a pool of tools and expertise developed internally and externally. Hence the innovation process in a firm that cannot be separated from the other processes that are being undertaken within the firm.

The importance of digital innovation on the competitiveness of business organizations was advocated by Nylén and Holmström (2015) who developed a diagnosis and improvement highlight that the digital improvements on existing product should be aimed at changing user experience through improvement of value proposition. At the same time, there is need to scan for any available digital evolution that is being implemented by competitors with a view to improving once on digital innovation (Pavlou & El Sawy, 2010). In the same line, innovation in available skills and improvisation is taken as important characteristic of innovation, a position that should be led by the top management team. This position was later found to be important determinant in an organizational capability to improve on existing product by Li et al., (2013) who advocated for the top management attention in innovation and intensity in new product innovation. On the part of entrepreneurial orientation to introduce changes in an existing product, it is important for proclivity and risk taking on the part of managers in order to be able to change a current product that might seemingly be doing well in the market

Innovation of new items or improvement of current goods / services involves product creativity (Im & Workman 2014). New features, user-friends, intended use, software, or components, and materials could be used to shift the new product. Product innovation could lead to significant changes in an existing product's intended use or characteristics (OECD 2005). In the eyes of the consumer, technical innovation guarantees the introduction of a different model and the improved quality of goods and services meaning that product variance is added in the company's existing products.

The main objective of product innovation is to introduce efficiency in a company that is associated with improved performance and therefore, companies must develop new products according to customer needs in the current business environment. In the extant marketing literature, for example, product innovation is associated with effective research and development process that is linked with the firm marketing process in which it is able to capture what the desires of the consumers in the market entail. Kamaşak and Bulutlar, (2017) reinforced the knowledge sharing in the process of innovating new products whereby both knowledge collecting and sharing was found to significantly affect the exploitative innovation of a firm. Similarly, internal knowledge dissemination practice was found to have more impact on new product innovation due to the fact that employees in the same organization will be willing to address a common goal than knowledge from external sources.

Companies develop new methods of production and offering new services using technological improvements concurrently with the studying of the competitor changes in the market (Harjanti & Noerchoidah, 2017). Innovation in systems includes the use of new capital resources and

technical processes in routine business operation that results in improved efficiency and performance. It seeks to improve distribution or production processes which require substantial changes to production techniques and available facilities. Heidenreich (2009), noted that technological innovation is connected to the introduction, typically through purchasing up-to-date machinery or electronic hardware and software, of new equipment, processing equipment and equipment for IT related department (OECD, 2005).

The difference in the innovation strategies between large and small firms was highlighted by Sardana, Gupta and Terziovski (2018) who while investigating the innovation practice in Australian (SMEs) and how the firms performance is changed noted that improving or modifying existing product through incremental innovation due to a lack of adequate resources, a position that Barney (1991) alluded to. Similarly, the cultural dimension of the smaller SMEs was found not to have developed enough formal structures for innovation unlike the large firms.

The risk exposure on a product is increased under a new product as compared to the incremental product innovation and consequently, an organization management might opt to incrementally improve the benefits that are currently accruing to the present customers. In addition an incremental innovation of an existing product can be adopted under an environment of low decision making due to the staff being cautious in their innovation decisions (De Massis, Frattini, Pizzurno, & Cassia, 2015). The low formalization experienced in smaller firms restricts the speed at which staff makes decision and this therefore suggest that incremental innovation of existing products will be expected in a smaller firm like the Fintech companies as compared to the large telecommunication firms.

High technology firms face unique challenges and opportunities at the same time that might be expensive if they pursue innovation individually as opposed to borrowing what their competitors have already developed (Collins & Smith, 2016). There are unique industry factors that suggest cooperation as opposed to individual pursuit of innovation. In the technological sector such as the one the Fintech companies operate in, their products are mostly associated with a shorter product lifecycle, convergence of multiple technologies required to meet the standard set and enhanced R&D and investment capital expenditures that is required to put a product in the market. Similarly due to the rapidly changing customer preferences and speed and coupled with technological changes, firms have been forced to speed-up their innovation strategies through improvement in already existing competitor products (Gnyawali & Park, 2014). In addition, cooperation in innovation process facilitates sharing of risk and bringing together of technical know-how that might be missing at an individual firm point of view.

The improvement of current product that is being offered by a firm or competitors has been highlighted to possibly result in a decline in prices and better products in the market. This is because such improvement of products may result in consumers experiencing high quality products at competitive prices and also competitors failing to exploit the customers (Ritala & Sainio, 2014). Further, product development cooperation may result network that are positive because of diffusion that are increased and their innovation as well as from other determinants like getting a source of supply of their creativity that is affordable due to the use of in-house production. At the same time, the cost of preventing competitors from accessing a new technology by a firm might actually be more expensive than allowing them to access the same inspection or use by any interested party.

Pavlou and El Sawy (2015) argue that innovating a product involves the introduction of a new commodity with new features or start of significantly new features into an existing products/services. The newness of the product might take the form of new features, user friendly, software and material. Innovation of a new product is associated with unique features that fundamentally change the characteristics of an existing product (OECD, 2005). From the side of a customer, product innovation brings modification on the product in use and this comes about due to the introduction of different efficiency in the production process. In the extant marketing literature, for example, product innovation is associated with effective research and development process that is linked with the firm marketing process in which it is able to capture what the desires of the consumers in the market entail.

Companies come up with novelties in the manufacturing and delivery techniques to allow effectiveness in the in activities by simultaneously introducing organizational and technological changes. Process innovation involves the use of new capital equipment and the practices of learning by doing and learning by using. This is aimed at improving production or delivery methods and will involve sizable changes in techniques and production equipment. Heidenreich (2009) assert that technological process changes is related to the introduction of new capital equipment, IT equipment - usually obtained through acquisition of advanced machinery.

Alsamydai, Alnawas and Yousif (2010) while investigating how marketing innovation affect the performance of commercial banks in Jordan found that marketing innovation through the generation of a long-term competitiveness and growth of the firm. It is necessary that organization leaders also work according to the strategies of the company and marketing perception and innovation for growth of sustainability of credit. Further, with the increased use

of online marketing, a firms' marketing that will involve sale of its products online to customers is expected to increase its competitiveness and hence the firm long-term sustainability (Chen, 2006). Marketing innovation performance enables a firm to identify technological opportunities that results in improved product and superior value product to the customer and thus increased customer value.

2.4 Summary of Literature and Research Gap

Organization innovation as a source of competitiveness has been a point of interest for many scholars and practitioners due to its perceived effect on a firm outcome. From the literature and empirical studies covered, attention has been directed to establishing how different internal resources affect innovation strategy in an organization; Knowledge management (Li et al., 2013; Kamaşak and Bulutlar, 2017) in which the common conclusion was that knowledge management played important role in innovation strategy – especially under an uncertain business environment.

Sources of different forms of innovation has attracted sizable attention of researchers with Reichstein and Salter (2006) concentrating on process innovation among UK manufacturing firms; while Heidenreich (2009) concentrated on technological innovation among German banks. Similarly, the difference in innovation strategies between small and large firms in Australia attracted the attention of Terziovski (2018). While the importance of different types of innovation strategies have been investigated, the fintech firms level of competitiveness and how innovation strategies is a predictor was not covered. Though the study by De Massis, Frattini, Pizzurno and Cassia, (2015) while investigating the incremental innovation zeroed in on competitor innovation, it did not cover other independent variables relating to new product

development, improvement on existing product and marketing innovation to which the current research pursued. Therefore, the contextual and conceptual gaps identified formed the gaps to which the current research filled.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section highlights the study techniques that were applied in order to achieve the intended objective. The areas of consideration in this chapter comprise of the study research design, target population and methods applied in gathering the relevant data. In addition, the part covers the approach to be adopted during the data analysis process.

3.2 Research Design

This provides details based on the techniques that the study may adopt so as to achieve its desired objectives and goals. It is considered to a road map, a master plan detailing strategies, procedures and processes for gathering and interpreting the information required, or simply a structure or action plan for study (Collis & Hussey, 2017).

The study adopted a cross-sectional descriptive research design. The reason that justifies the choice of this study design is that the descriptive design approach is primarily concerned with the univariate questions in which the is concerned with investigating the influence of innovation on competitive advantage of Fintech firms in Kenya. Furthermore, this idea would assist in procedure of coming up with understanding that is personal and legitimate and of added value due to of adopting appropriate innovation.

3.3 Population

Hancock and Algozzine, (2016), stated that a study population is a collection of elements of research that an analyst is interested with either non-living or living things. The research elements the population that is targeted are established according to different determinants including the scope of the study, geographical boundaries, time bound as well as availability.

The targeted population in the study were majorly the major Fintech companies with a turnover exceeding Ksh 50 million. According to the Central Bank of Kenya (CBK), are 38 Fintech companies that meet this criterion (Appendix II). This formed the population of the study. Since the number of firms was small and then assumed a census approach.

3.4 Data Collection

This study utilized primary data that was gathered using the questionnaires that are semi-structured that was closed-ended. The closed ended questions purpose of including an open-ended question in the questionnaire was to allow the respondents ample flexibility to reply without limitations of their own judgment, while the closed-ended questions encouraged prompt responses. Part A highlighted the demographic information of the participants and groups of interest while part B sought to establish the Innovation strategies practices employed by the major Fintech companies in Kenya. Section C sought to determine the effect innovation strategies on competitive advantage of the Fintech companies in Kenya. Mugenda (2008) highlights that the application of questionnaires should maintain confidential information of the participants.

They were given to the respondents after explaining the motive of the study. The target respondents were the business development managers or those holding equivalent positions in the Fintech firms. The participants were requested to answer questionnaires after which they questionnaires were gathered after one week. The participants gave their responses in a five point Likert scale.

3.5 Data Analysis

Descriptive statistics; measures of dispersion and central tendencies was found through SPSS in order to summarise the research results and found distribution of participants based on the

determinants captured in the questionnaire. In addition, the researcher aligned the responses to meet completeness, consistency and accuracy features which are presumed to provide precise findings in line with the objective of the study. Data cleaning was done to eliminate missing values that may negatively affect the findings of the study. Further, entry of data were carried out after coding the questionnaires that were answered to enable easy identification of mistakes. Presentation of data findings was through tables and figures where descriptive statistics such as standard deviation, mean maximum and minimum are presented.

The researcher further employed regression model to study the linkage between the innovation strategies and competitiveness of Fintech companies in Kenya. The relationship of the equation was a linear equation and assumed the following form:

$$Y = \alpha + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + \epsilon$$

Y = Firm Competitiveness

α = Constant (Co-efficient of intercept)

X₁ = New product Development

X₂ = Improvement of existing product

X₃ = Improvement of Competitor Ideas

X₄ = Process Innovation

X₅ = Marketing Innovation

ϵ . = Error Term

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The section highlights the examination of data gathered. The specific areas of considerations in the chapter include; the response rate, organization and respondent demographic information, descriptive statistics with regard to innovative strategies dimensions and normality tests. Further, the section presents the resultant regression analysis and a brief of the research results. Presentation of the findings and findings are done according the five study specific objectives. Tables are used as a tool for presentation.

4.2 Response rate

Collis and Hussey (2017), highlighted that the rate of response represents statistical capability of a test with a response rate over 70% being considered to be a higher response rate representing a higher respondents compliance in answering the questions in the questionnaire. Each of the 38 Fintech firms was issued with one questionnaire and 32 of the firms filled and returned. This represented an 84.2% response rate and since the response rate is $> 70\%$, then a high response rate was realised. This finding is presented in Table 4.1.

Table 4. 1: Response Rate

| Questionnaires | Number | Percentage |
|---------------------|--------|------------|
| Filled and Returned | 32 | 84.2 |
| No-responded | 6 | 15.8 |
| Total | 38 | 100 |

Source: Research Data (2020)

From Table 4.1 it is obvious that with a rate of response of 84.2%, then it can be concluded that the data collection was responsive and thus the findings is representative to be relied upon in arriving at the research objective.

4.3 Demographic Information

The section provides analysis and explanation of the data based on demographic information of relating to those respondents that participated in the research. The information sought in the section include managerial level of the respondents, length of service, number of employees and age of the fintech firms.

4.3.1 Level of Management

The managerial position of the respondents' gives an indication of the level of policy decisions that they participate in and therefore will be able to answer appropriately the questions contained in the questionnaire. Employee's management level is essential in determining if an employee might be involved in the decision making with regard to policy implementation as far as innovation strategies are concerned. The outcomes are shown in Table 4.2.

Table 4. 2: Managerial Level of Respondents

| | | Frequency | Percent | Cumulative Percent |
|-------|-------------------|-----------|---------|--------------------|
| Valid | Top management | 12 | 37.5 | 37.5 |
| | Middle level | 14 | 43.8 | 81.2 |
| | Supervisory level | 6 | 18.8 | 100.0 |
| | Total | 32 | 100.0 | |

Source: Research Data (2020)

From Table 4.2 it is clear that, most of the participants (43.8%) held the middle level of management in the Fintech companies while 37.5% held the top management position.

Therefore, over four-fifth of the respondents held higher than the middle level management position in their respective organizations and therefore deemed to be aware of the innovation strategies employed by the organizations and what its effect on the level of competitiveness to the firms is. Only less than 20% of the respondents held the supervisory level and therefore hold a critical position in implementation of the strategies.

4.3.2 Length of Service

The respondents' length of service within the Fintech companies is necessary in assessing their working experience within the industry and therefore be a knowledgeable on the research subject area. The longer the time that a respondent has been in service, the more information that he/she has with regard to the study subject area. The results are indicated in Table 4.3.

Table 4. 3: Length of Service

| | Frequency | Percent | Cumulative Percent |
|--------------------|-----------|---------|--------------------|
| Less than 5 years | 6 | 18.8 | 18.8 |
| 5-10 years | 15 | 46.9 | 65.6 |
| 11-15 years | 9 | 28.1 | 93.8 |
| More than 15 years | 2 | 6.2 | 100.0 |
| Total | 32 | 100.0 | |

Source: Research Data (2020)

From Table 4.3 it is clear that 46.9% (15) had worked in their respective organizations for between 5-10 years while 28% and 18.8% had worked in the Fintech sector for between 11-15 year and less than five years respectively. Cumulatively, over 80% of the respondents have experience in the in the fintech sector spanning over five years, an indication that they are knowledgeable with the operational and strategic steps that the organizations make with the goal of improving their competitiveness.

4.3.3 Number of Employees

In determining the size of a company, majority of studies normally use the number of employees that a given organization of interest has employed. The current study followed the suit in determining how big or small the Fintech companies are in relation to number of employees. The findings with respect to the size of the fintech firms are highlighted in Table 4.4.

Table 4. 4: Number of Employees

| | Frequency | Percent | Cumulative Percent |
|--------------------|-----------|---------|--------------------|
| Valid Less than 30 | 5 | 15.6 | 15.6 |
| 30-50 | 14 | 43.8 | 59.4 |
| 51-70 | 7 | 21.9 | 81.2 |
| Over 71 | 6 | 18.8 | 100.0 |
| Total | 32 | 100.0 | |

Source: Research Data (2020)

From Table 4.4 it is clear Fintech companies in Kenya are small organizations given that 43.8% of the respondents indicated that their organizations comprise of 30-50 employees, 21.9 marked that they are between 51 and 70 employees in the organization while 18.8% and 15.6% indicating that they comprise of over 71 and less than 50 employees respectively.

4.3.4 Age of the Organization

Many organizations have been undergoing massive change particularly in modes of operations as a result of change in technological world leading to consumers demanding a sophisticated service from their service providers. In this regard, the age of an organization determines how an organization has experienced phased development and be in a position to compare its competitive capability now and before incorporation of the changes in technology. The results with regard to the age of the fintech firms researched on are indicated in Table 4.5.

Table 4. 5: Age of the Organization

| | Age | Frequency | Percent | Cumulative Percent |
|-------|--------------------|-----------|---------|--------------------|
| Valid | Less than 10 years | 11 | 34.4 | 34.4 |
| | 10-15 years | 14 | 43.8 | 78.1 |
| | 16-20 Years | 4 | 12.5 | 90.6 |
| | Over 21 years | 3 | 9.4 | 100.0 |
| | Total | 32 | 100.0 | |

Source: Research Data (2020)

From Table 4.5 it is clear that slightly higher than two-fifths of the firms (43.8%) had been in operation for between 10 – 15 years while over 34.4% had been in operations for less than 10 years. Generally, close to two-third of the firms had operated for over 10 years, implying that the firms would have adopted appropriate innovation strategies that might have contributed to the growth and sustenance of the firms.

4.4 Innovation Strategies

Different innovation strategies that had been employed in the fintech companies under investigation is covered in this section. The study considered 5 innovation strategies that are perceived to influence the competitiveness of Fintech companies in Kenya. These strategies consisted of; new product development, improvement of existing product, improvement of competitor ideas, product innovation, process innovation and marketing innovation. The study asked the respondents to evaluate strategies that have been implemented and the possible impact on competitive capability of the organization using a 5-point Linkert scale where 1-very small extent to 5-very large extent. The means that are greater than 3.5 imply that the practice has been implemented to a large extent while the means less than 1.5 shows that the practice has been

implemented though to a very small extent. A standard deviation greater than 1 represents a high response variation on the statements

4.4.1 New product Development

The capacity of an organization to develop new products is considered one of the strategies that can result in improved firm competitiveness due to its capacity to result in improved clientele and market share. The results with regard on how the company new product development is pursued are shown in Table 4.6.

Table 4. 6: New Product Development

| Statement | N | Mean | Std. Deviation |
|--|-----------|-------------|-----------------------|
| We offer products that have been innovated and produced within the firm | 32 | 4.13 | .793 |
| Our firm produces original products | 32 | 4.09 | .641 |
| Our products are user friendly | 32 | 4.09 | .893 |
| Our system support to customers is of high quality | 32 | 4.00 | .880 |
| The firm produces products that meet technical specifications set by customers | 32 | 3.94 | 1.045 |
| Our firm produces products according to customer demands | 32 | 3.75 | .842 |
| The firm has patented more than one product that it has developed | 32 | 3.72 | .772 |
| Our products have different features from the competitors | 32 | 3.53 | .879 |
| Overall mean | 32 | 3.91 | |

Source: Research Data (202)

In relation to new product development innovation (Table 4.6) suggest that, to a large extent the Fintech companies offer products that have been innovated and produced within the firm (M=4.13) and that these products are original (M=4.09) and user friendly (M=4.09) implying that the products are as a result of effectively implemented innovation strategy. To moderate

extent, the respondents agreed that the products have different features from the competitors (M=3.53). The high standard deviation (SD=1.045) with regard to the technical specification of the fintech firms products suggest that there was a high variation with respect to the responses from the participating firms.

4.4.2 Improvement of Existing Product

Table 4. 7: Improvement of Existing Product

| Statements | N | Mean | Std. Deviation |
|--|-----------|-------------|-----------------------|
| Reliability of our services | 32 | 4.19 | .931 |
| Improved productivity | 32 | 3.72 | .813 |
| The delivery speed of our services | 32 | 3.69 | .821 |
| Employee skills and involvement | 32 | 3.66 | .902 |
| Qualification of suppliers | 32 | 3.62 | .871 |
| Cost of service offering | 32 | 3.47 | .950 |
| Delivery reliability | 32 | 3.41 | .979 |
| The organization has endeavored to improve the quality of our services | 32 | 3.28 | 1.085 |
| Overall mean | 32 | 3.63 | |

Source: Research Data (2020)

From Table 4.7 implementation of innovation strategy can be manifested in form of the organization being able to change the products of an existing product in terms of quality or even the shape of the product. The results in Table 4.7 reveals that the improvement of existing product is experienced in terms of an improvement of the product reliability (M=4.19), improved productivity (M=3.72), high service delivery speed (M=3.69), employee skills and development (M=3.66) among other improvement of existing product strategies. To a moderate extent, the

results suggest that the change in delivery reliability was exercised (M=3.41) and the quest to change the quality of services (M= 3.28).

4.4.3 Improvement of Competitor Ideas

The innovation strategy of a firm can also take the form of a firm identifying a potential product and making improvement on the same. In this regard, the results on how the fintech firms improve on competitor product are shown in Table 4.8.

Table 4. 8: Improvement of Competitor Product

| Statement | N | Mean | Std. Deviation |
|---|-----------|-------------|-----------------------|
| Our top managers discuss about our competitors | 32 | 3.81 | .931 |
| We respond rapidly to competitor service offerings | 32 | 3.75 | .950 |
| Our employees are always instructed to collect and monitor competitor service offerings | 32 | 3.75 | .803 |
| We frequently collect data about our competitor products | 32 | 3.66 | 1.004 |
| We collaborate with competitors in new product R & D | 32 | 3.09 | 1.027 |
| We share with our competitors the cost of running a technical product that we co-own | 32 | 2.94 | .948 |
| Overall mean | 32 | 3.43 | |

Source: Research Data (2020)

From Table 4.8 improvement of competitor ideas, as an innovative strategy to influence firm competitiveness among the Fintech companies shows that, to a large extent, the top management of the firms discuss about competitors (M=3.81) and also respond rapidly to competitor service offering strategies that are introduced (M=3.75). Further, employees in the Fintech companies are always instructed to collect and monitor competitor service offerings (M=3.75) by frequently collecting data about competitor’s products (M=3.66). However, to a small extent, the Fintech

firms share with competitors the cost of running a technical product (M=2.94) nor collaborate with competitors in R & D during the new product development (M =2.94).

4.4.4 Process Innovation

Table 4. 9: Process Innovation

| Statement | N | Mean | Std. Deviation |
|--|-----------|-------------|-----------------------|
| The firm has introduced changes in the operational process currently as compared to the earlier period | 32 | 4.22 | .792 |
| The firm keeps records during material delivery to the generation of the final product | 32 | 4.12 | .942 |
| The firm adopts computer-aided operations in its process | 32 | 4.03 | .897 |
| The firm continuously implements value engineering in its process to eliminate the non-value ones | 32 | 3.47 | .842 |
| The speed of manufacturing has improved over the period without comprising on the product quality | 32 | 3.16 | 1.081 |
| Overall mean | 32 | 3.79 | |

The study findings with reference to process innovation indicates that the Fintech firms have introduced changes in the operational process currently as compared to the earlier period (M=4.22) and also keep records during material delivery to the generation of the final product (M=4.12). The firms continuously implement value engineering in their process to eliminate the non-value ones (M=3.47) and as a result, the speed of manufacturing has improved over the period without compromising on the product quality (M=3.16). This imply therefore that Fintech companies have implemented effectively process innovation thus enhancing quality service delivery that meets customer specifications. With the low standard deviations, it can be deduced that the responses inclined towards the mean.

4.4.5 Marketing Innovation

The findings in regard to the marketing innovation undertaken by the fintech firms are shown in Table 4.10.

Table 4. 10: Marketing Innovation

| Statement | N | Mean | Std. Deviation |
|---|-----------|-------------|-----------------------|
| My firm changes its product packaging design to increase sales | 32 | 3.75 | .842 |
| The current marketing strategy is different to that that was adopted two years ago | 32 | 3.72 | .888 |
| The last customer survey carried out by the company shows a high level of customer satisfaction of our products | 32 | 3.69 | .931 |
| The firm websites contains our products that explains their products and attributes | 32 | 3.69 | .998 |
| The firm has adopted new product promotion techniques | 32 | 3.47 | .983 |
| Our market share of the product segment has been increasing as compared to two years ago | 32 | 3.41 | 1.073 |
| Overall mean | 32 | 3.62 | |

Source: Research Data (2020)

From Table 4.10 marketing innovation as a dimension of innovative strategy, the study established that Fintech firms changes its product packaging design to increase sales (M=3.75) and as an evident of marketing strategy improvement, it is established that the current marketing strategy is different to that that was adopted two years ago (M=3.72). Furthermore, the study found that the last customer survey carried out by the company shows their customers are satisfied with the products offered to the market (M=3.69) and that the market share of the product segment has been increasing as compared to two years ago (M=3.41). This therefore implies that Fintech firms have enhanced its marketing innovation thus reaching out to more customers while keeping high quality products thus improving customer loyalty.

4.5 Organization Competitiveness

The competitiveness of a firm can be measured by different attributes and equally that no single factor its performance. As a result, the respondents were asked to indicate the extent at which the companies' competitiveness has been influenced by innovative strategies using the statements in Table 4.11. The results are follows.

Table 4. 11: Firm Competitiveness

| Statements | N | Mean | Std. Deviation |
|---|-----------|-------------|----------------|
| Our products are difficult to be copied by competitors in the fintech sector | 32 | 4.31 | .931 |
| We track changes in customer needs and wants | 32 | 3.91 | .963 |
| Our products have significant advantage over those of competitors | 32 | 3.88 | 1.008 |
| Our product changes are unique | 32 | 3.81 | .780 |
| We respond well to changes in the market | 32 | 3.53 | 1.016 |
| Our ability to collect strategic information from competitors for use in strategic planning is good | 32 | 3.06 | 1.076 |
| Our speed of sharing competitor moves in the organization is good | 32 | 2.97 | .999 |
| We respond quickly to customer complains | 32 | 2.91 | .928 |
| Overall mean | 32 | 3.55 | |

Source: Research Data (2020)

The results in Table 4.11 suggests that the popular source of competitiveness to the firm is the inability of competitors to copy the firms products (M=4.31) and that similarly their ability to track changes in customer needs (M=3.91). In the same way, the other source of competitiveness to the company is their ability to respond well to changes in the market (M=3.53) as well as the customer complaints (M=2.91). On the other hand, to a small extent, the source of the fintech

firms competitiveness was associated to their ability to respond to customer complains (M=2.91) and that capability to share competitor moves in the organization (M=2.97).

4.6 Diagnosis Test

This is carried out to make sure that the data gives suitable regression outcomes without errors that relates to correlation of independent variables. This test involves normality, multicollinearity and serial correlation (autocorrelation)

4.6.1 Normality

Normality tests provides an assurance that the data collected and analysed are normally distributed and thus provides views that takes care of all the respondents perspectives expected under normal circumstances. This test is done to measure peakedness and skewness of the data is tested and therefore checking if the data is coming from a normally distributed population.

Shapiro-Wilk test was applied to establish the normality of the data. When interpreting the results, a level of significance greater than 0.05 indicates the data value deviates slowly from the normal distribution while a level of significance less than or equal to 0.05 means it is normally distributed.

Table 4. 12: Tests for Normality

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|----------------------|---------------------------------|----|------|--------------|----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Competitiveness | .304 | 32 | .000 | .847 | 32 | .000 |
| Product development | .215 | 32 | .001 | .904 | 32 | .008 |
| Product improvement | .242 | 32 | .000 | .869 | 32 | .001 |
| Competitor ideas | .323 | 32 | .000 | .832 | 32 | .000 |
| Process innovation | .260 | 32 | .000 | .853 | 32 | .000 |
| Marketing innovation | .223 | 32 | .000 | .881 | 32 | .002 |

a. Lilliefors Significance Correction

The results imply that the data points relating to all the variables considered in the study are normally distributed since their significance values are less than 5%. This therefore implies that the data comes from a normally distributed population.

4.6.2 Multicollinearity

Multicollinearity relates to a situation where the predictor variables in a model influence one another such that the lagging results influences subsequent correlate with each other. The present employed variance inflation factor (VIF) measure to establish the degree of multicollinearity among the explanatory variables. Table 4.13 shows the results of the test. If VIF lies between 1 and 10, then there is no multicollinearity.

Table 4. 13: Test for Multicollinearity

| Model | Collinearity Statistics | |
|----------------------|-------------------------|-------|
| | Tolerance | VIF |
| 1 (Constant) | | |
| Product development | .727 | 1.375 |
| Product improvement | .537 | 1.862 |
| Competitor ideas | .463 | 2.158 |
| Process innovation | .742 | 1.348 |
| Marketing innovation | .533 | 1.875 |

Source: Research Data (2020)

From Table 4.13, the variance inflation factor (VIF) of the variables lies between 1 and 10. These therefore imply that there is no multicollinearity and therefore the predictor variables in the multiple regression model are not linearly related.

4.6.3 Serial Correlation

Serial correlation refers to a situation where the study variables are influenced by one another with the lagged versions of the same variable over various time intervals. The Durbin Watson test was carried out and the findings are as presented. The DW statistic will always have a value between 0 and 4 in situations where there is no values less than 2 indicating a positive autocorrelation, while values > 2 suggest existence of a negative autocorrelation. However, DW values with coefficient equal to 2 shows that there is no serial correlation.

Table 4. 14: Serial Correlation

| Test | Statistic |
|---------------|-----------|
| Durbin Watson | 2.232 |

Source: Research Data (2020)

Table 4.14 indicate that the DW statistic is 2.232 which is equivalent to 2. This therefore implies that there is no serial correlation. This means that there is no affect and that the unbiased or consistency of OLS estimators, only the efficiency but insignificantly.

4.7 Regression Analysis

To establish innovation strategy and competitiveness of Fintech companies in Kenya, simple linear regression analysis was computed. (SPSS V 21.0) to input and run the study measurements. Coefficient of determination determines the degree to which independent variables explain changes in the outcome determinant that is explained by all the factors. The relationship between each dimension of innovation strategy and competitiveness follows and finally a composite regression model incorporating all the five dimensions of innovation strategy is provided.

4.7.1 Product development and Competitiveness

The inferential statistics computed demonstrated the findings as presented.

Table 4. 15 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .117 ^a | .014 | -.019 | 1.37948 |

a. Predictors: (Constant), Product development

From the model summary, the study found R coefficient (the coefficient of correlation) of 0.117 and R square (the coefficient of determination) of 0.014. The findings thus shows that product development has a weak but positive correlation with competitiveness of Fintech firms in Kenya. In addition, from the entire pie of competitiveness of fintech firms, product development contributes 1.4%. The findings imply that fintech firms cannot achieve competitiveness using product development alone, instead, other innovation strategies should be implemented for effective and sustainable competitiveness.

Table 4. 16: Product development Coefficient

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|-------|---------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | t | |
| 1 | (Constant) | 2.200 | 1.174 | | 1.874 | .071 |
| | Product development | .172 | .268 | .117 | .643 | .525 |

a. Dependent Variable: Competitiveness

From the regression coefficient Table 4.16, it is evident that there is a positive linear relationship between product development and competitiveness. Using the coefficient obtained, a linear regression model can be presented as;

$$\text{Competitiveness} = 2.2 + 0.172(\text{product development})$$

Drawing from the regression model, the findings imply that without product development, competitiveness of fintech firms as a result of innovation strategies, not factoring in product development, will be 2.2 units. However, advancement in product development by a unit of measure enhances competitiveness by a factor of 0.172.

4.7.2 Product Improvement and Competitiveness

Table 4. 17 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .691 ^a | .478 | .461 | 1.00350 |

a. Predictors: (Constant), Product improvement

The finding from the model summary in Table 4.17 in relation to product improvement and competitiveness of fintech firms in Kenya shows that there is a moderately strong correlation (R=0.691) between product development and competitiveness of fintech firms. In addition, the study established that product development explains 47.8% (R square =0.478) of the overall competitiveness. The findings show that product development is an integral part in the process of attaining organizational competitiveness.

Table 4. 18 Product improvement Coefficient

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|-------|---------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | t | |
| 1 | (Constant) | .553 | .488 | | 1.132 | .267 |
| | Product improvement | .763 | .146 | .691 | 5.241 | .000 |

a. Dependent Variable: Competitiveness

From the regression coefficient table, the study established that without product development, competitiveness will stand at 0.553 units. However, incorporating product improvement, there will be an increase in organizational competitiveness by a factor of 0.763 per unit. Furthermore, the study established that the effect of product improvement on competitiveness was significant

(0.000) which is less than 0.005. As a result, a linear regression model showing the linkage between product improvement and competitiveness is presented as;

$$\text{Competitiveness} = 0.553 + 0.763(\text{product improvement})$$

4.7.3 Competitor Ideas and Competitiveness

Table 4. 19 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .502 ^a | .252 | .227 | 1.20106 |

a. Predictors: (Constant), Competitor ideas

Based on the effect of competitor ideas on competitiveness of fintech firms, the study established that there is moderate (R=0.502) correlation between the variables. In addition, the study found that borrowing and implementing competitor ideas explains 25.2% (R square=0.252) of the overall competitiveness. The findings imply that although competitor ideas are good for competitiveness, it should be implemented with caution since not all ideas suits operationalization of activities in a different organization. Some ideas may lead to total loss hence jeopardizing performance.

Table 4. 20 Computer Ideas Coefficient

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|-------|------------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | t | |
| 1 | (Constant) | 5.735 | .905 | | 6.339 | .000 |
| | Competitor ideas | -.673 | .212 | -.502 | -3.181 | .003 |

a. Dependent Variable: Competitiveness

The study findings from the regression coefficient Table 4.20 shows that keeping competitor ideas constant, competitiveness of fintech firms will be 5.735 units. However, introductions of competitor ideas will lead to a reduction in organizational competitiveness capacity by a factor of -0.673 which the study findings established to be a significant (0.003) negative effect. The findings thus imply that competitor ideas have a negative relationship with competitiveness of fintech firms. This relationship can also be presented as;

$$\text{Competitiveness} = 5.735 - 0.673(\text{Competitor ideas})$$

4.7.4 Process Innovation and Competitiveness

Table 4. 21 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .160 ^a | .026 | -.007 | 1.37111 |

a. Predictors: (Constant), Process innovation

The results in Table 4.22 suggest existence of a weak correlation (R=0.160) between the predictor and explanatory variables under consideration. In addition, the coefficient of determination (R square=0.026) shows that 2.6% of competitiveness is explained by process innovation. This implies that although the contribution of process innovation on competitiveness is small, continuous advancement of process innovation may lead to sustainable organizational competitiveness.

Table 4. 22 Process Innovation Coefficient

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|-------|--------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | t | |
| 1 | (Constant) | 2.299 | .761 | | 3.022 | .005 |
| | Process innovation | .198 | .224 | .160 | .886 | .383 |

a. Dependent Variable: Competitiveness

Using the regression coefficient Table 4.22, a regression model showing the relationship between process innovation and competitiveness of fintech firms is presented as;

$$Competitiveness = 2.299 + 0.198(process\ innovation)$$

From the regression model, it can be said that without process innovation, competitiveness of fintech firms will stand at 2.299 units. With introduction of innovative strategy through process innovation, there will be an increase in competitiveness by a factor of 0.198. The findings imply that process innovation has a positive but insignificant ($\alpha=0.383$) effect on competitiveness of fintech firms.

4.7.5 Marketing Innovation and Competitiveness

Table 4. 23 Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .403 ^a | .163 | .135 | 1.27095 |

a. Predictors: (Constant), Marketing innovation

The model summary in Table 4.23, showing the relation between marketing innovation and competitiveness of fintech firms suggests R coefficient (the coefficient of correlation) of 0.403

and R square (= 0.163). This implies that there is a weak correlation between marketing innovation and competitiveness and that marketing innovation explains 16.3% of the overall organizational competitiveness.

Table 4. 24 Marketing Innovation Coefficient

| Model | | Unstandardized Coefficients | | Standardized | t | Sig. |
|-------|----------------------|-----------------------------|------------|--------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.587 | .603 | | 2.632 | .013 |
| | Marketing innovation | .420 | .174 | .403 | 2.414 | .022 |

a. Dependent Variable: Competitiveness

Drawing from the regression coefficient Table 4.24, a regression model showing the linkage between marketing innovation and competitiveness can be presented as;

$$\text{Competitiveness} = 1.587 + 0.420(\text{marketing innovation})$$

The model implies that keeping marketing innovation at a constant zero, competitiveness will stand at 1.587 units. However, implementation of marketing innovation to gain competitiveness brings a positive effect by a factor of 0.420 units. In addition, the research found that marketing innovation has a useful and remarkable ($\alpha=0.022$) impact on competitiveness of fintech firms.

4.8 Composite Regression Analysis

4.8.1 Summary Model

Table 4.25 demonstrates the model summary.

Table 4. 25 : Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .820 ^a | .672 | .593 | .537 |

a. Predictors: (Constant), Marketing innovation, Process innovation, Product development, Competitor ideas, Product improvement, Product innovation

From the model summary of regressed study variables, the correlation coefficient (R=0.82) value represents a strong positive correlation between innovation strategies and competitiveness of the

fintech firms. The coefficient of determination (R^2) indicates the extent to which the independent variables influence firm competitiveness. The R square value of 0.672 suggest that 67.2% of the competitiveness of fintech firms, researched on, is explained by their innovation strategies that are adopted.

4.8.2 ANOVA

Analysis of variance (ANOVA) indicates the significance to which the model can be relied upon.

Table 4. 26: Anova

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 14.788 | 6 | 2.465 | 8.543 | .000 ^a |
| | Residual | 7.212 | 25 | .288 | | |
| | Total | 22.000 | 31 | | | |

a. Predictors: (Constant), new product development, improvement of existing product, Competitor ideas, product development, process innovation, marketing innovation

b. Dependent Variable: Competitiveness

From Table 4.26, the significance value of the model is 0.000 (expressed in three decimal places) which is less than 0.05. This therefore suggests that the model is significant and that competitiveness of Fintech companies is statistically predicted by innovative strategies.

4.8.3 Regression Coefficients

Regression coefficients show the effect of each individual independent variable on the dependent variable. It gives the linear association between the results and predictor factors.

Table 4. 27: Coefficients

| | Unstandardized Coefficients | | Standardized Coefficients | | Sig. |
|----------------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | t | |
| (Constant) | -.012 | .889 | | -.014 | .989 |
| Product development | .268 | .104 | .345 | 2.566 | .017 |
| Product improvement | .518 | .160 | .505 | 3.231 | .003 |
| Competitor ideas | .158 | .174 | .152 | .905 | .374 |
| Process innovation | .064 | .129 | .067 | .501 | .621 |
| Marketing innovation | .013 | .135 | .015 | .095 | .925 |

a. Dependent Variable: Competitiveness

The results in Table 4.27 depicting the composite coefficient shows that without innovative strategies in place, competitiveness of Fintech companies will reduce by -0.012 units. A unit change on the product innovation results in 0.268 units (p=0.17) while a unit increase in process innovation causes an increase of 0.518 in the firm competitiveness (p=0.03). Since the significance level of the analysis was 0.05, the other independent variables were established not to be remarkable in influencing the competitive advantage of fintech firms. However, the other innovation strategies variables, competitor analysis, product innovation, process, and marketing were found not to be significant in predicting firm competitors since the $P > 0.05$. Hence the resultant regression equation is;

$$Y = -0.012 + 0.268X_1 - 0.518X_2 + 0.158X_3 + 0.064X_4 + 0.013X_5$$

4.8 Discussion of the Findings

From the study findings, the innovation strategies adopted by the fintech companies affect the competitiveness position of the fintech companies. The study has established that the six dimensions of competitiveness; new product development, improvement of existing products, improvement of competitor ideas, product innovation, process innovation and marketing innovation improves competitiveness of Fintech companies. Based on the findings with regard to new product development, the research established a positive linkage with competitiveness of the firms. The study found that as an evident of new product development, the Fintech companies produces original products in which the firms have patented more than one product.

The study findings further established that improvement of existing product has a positive relationship with competitiveness. As a result of positive coefficient in the linear equation, improvement of existing product is thus a necessary innovative construct that enhances competitiveness of Fintech companies. The study findings established that for continuous competitiveness, the companies have endeavored to improve quality of services and value addition. These findings supports earlier study by Nylén and Holmström (2015) who developed a diagnosis and improvement highlight that the digital improvements on existing product changes user experience since it improves the value proposition.

Improvement of competitor ideas as a construct of innovative strategy has been found to positively relate competitiveness of Fintech companies, the study has discovered that employees are always instructed to collect and monitor competitor services and as a result, they are able to learn from the competitor the technical know-how with regard to the development of new products. As a result, it will be less expensive when a firm improves its innovative capability from competitor's ideas rather than starting from research and development. This is in line with

Palmberg and Martikainen (2016) findings that high technology firms face unique challenges and opportunities at the same time that might be expensive if they pursue innovation individually as opposed to borrowing what their competitors have already developed

Additionally, a positive nexus between product innovation and competitiveness was established. The results suggest that Fintech firms do value addition to their products while producing new products that are novel in the market. As stated earlier by Polder et al. (2010) that the main goal of product innovation should aim at introducing efficiency in the business which is expected to result in improved performance of the firm and meet customer's needs.

The Fintech firms have introduced changes in the operational process currently compared to the earlier period due to the process innovation. The research found that that process innovation positively influences competitiveness of Fintech companies. Further, it was discovered that the firms continuously implement value engineering in its process to eliminate the non-value ones. The earlier findings by Reichstein and Salter (2006) that companies cause novelties in the techniques of production as well as delivery so as to bring effectiveness by simultaneously introducing organizational operation process and technological changes.

Marketing innovation was considered as one of the independent factors in the current research where, the findings have demonstrated that there is a useful link between market marketing innovation and firm competitiveness. As a result of marketing innovation, the firms have adopted new product promotion strategies that popularizes the products offered to vast customer base. Consequently, the market share of the product segment has been increasing as compared to two years ago. This finding is consistent with Alsamydai, Alnawas and Yousif (2010) who while investigating the effect of marketing innovation on performance of commercial banks in Jordan

highlight that marketing innovation positively affect the long-term competitive advantage of the fintech firms.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The outcomes are highlighted in this section. This section highlights the summary according to the determinants. Conclusions, suggestion is given and research limitations is covered.

5.2 Summary

The objective this was to investigate the effect of innovation strategies on competitive advantage of fintech companies in Kenya. The independent variables were proxied by five variables, namely; new product development, product improvement, improvement on competitor ideas, process and marketing innovation. The response rate of the research was 84.2% with the middle and senior management constituting 80% of the respondents and thus giving an indication that the respondents were well versed with the research subject matter, more so considering that most of the them had worked with the company for more than 5 years .

The new product development innovation strategy among the fintech firms involved being able to offer products that unique and that have been innovated and produced internally within the organization and more so are tailored to be user friendly. Similarly, to increase the competitiveness of their firms, the popular activities undertaken within the quest to introduce new products involved increasing their product delivery speed, reliability and employees competence through training. Similarly, the innovation strategy through improving of competitor ideas involved the management continuously evaluating competitor products and being able to respond quickly to the competitor introducing new products that pose a challenge to the existing product in the firm. In terms of improvement on the processes, the organizations adapt their

operation processes to the market changes. Similar adaptation was made in the marketing strategies employed by the fintech firms.

The relationship between innovation strategies and competitiveness was assessed using the regression equation. The data was found to be normally distributed as evidenced by the Shapiro-wilk significance valued being < 0.05 and the variance inflation factor being falling between 1 and 10 ($1 \leq VIF \leq 10$). A positive correlation was also found between the variables and the innovation strategies explained 67.2% of the fintech firm's competitiveness. Further, the findings reveal that two of the variables were significant in influencing the competitiveness of the firms because their p-values were less than 0.05. The significant variables were product development and product improvement. Otherwise, the improvement of competitor ideas, process innovation and marketing innovation was found not to be significant factor on the fintech firms competitiveness.

5.3 Conclusion

From the findings, it is appreciated that the fintech firms have an important role to play especially where conventional banks do not meet the needs present. The fintech firms combine IT and finance to develop financial service without the help of conventional banks, but the sector is so much fluid that requires that the firms undertake innovation on continuous basis. The positive correlation between innovation and competitiveness contribute to the existing literature of the internal resources as an essential antecedent of a firms competitive advantage.

The product development innovation and product improvement innovation were found to be the significant variables that affect the competitiveness of the firms. Therefore, the assertion that the ability of a firm to introduce new and imitable products or be able to introduce new and smaller changes on the existing product - like the mobile phone market, to sustain its competitiveness is

true. The insignificance of marketing innovation, process innovation and use of competitor innovation leads to the conclusion that the competitiveness of the firms is majorly based on internal strategies that can be implemented internally by the management and that they have control over the same, and not relying on the improving competitor ideas. Original internal ideas are the most potent in improving the competitiveness of the firms. Thus the interaction with the environment that is external affects the effect of the innovation process in and its influence on the organization competitiveness.

5.4 Recommendation for Policy

The findings and the conclusions thereon suggest that the competitiveness of a firm is majorly affected by the innovation dimensions that the management in have direct and initial control. This implies that the top management of the organizations should focus more on those innovations that they have direct control as opposed to directing more attention on externally influenced innovation dimensions.

The research shows the influence of the external environment in the innovation process and how it affects firm competitiveness. As a result, a firm should focus on adopting an open-mind culture to be in a position to know, source knowledge that is external and in the process to be able aware that turbulent environment affects firm internal strategies. Further, the fintech companies need to launch impactful marketing campaigns with a view to increasing public awareness of their products.

5.5 Limitation of the Study

The research is limited in terms of scope, context and methodological approaches that have been adopted. The research was limited to the fintech firms and thus results cannot be generalized to the other sectors in the economy as the commercial banks or other financial intermediaries. In

addition, the study restricted itself to the five innovation dimensions that were deemed applicable to the firms. There is need to expand the number of innovation variables so that the generalization of the findings can be enhanced. The research adopted the descriptive research design. Consequently, can the results cannot be generalized to apply to other countries or sectors in the country. Nonetheless, despite the inherent limitations to the study, it is forms an important source of reference and base for future studies in the field.

5.6 Recommendation for Further Research

The success of organization innovation strategies on the competitiveness of a firm was shown to be internally focused. Therefore, it is significant that a research be done to determine the influence of organization culture on the linkage between the two determinants. Furthermore, it is important the scope of the study be expanded such that more firms are considered and thus improve the generalization of the findings.

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APPENDICES

Appendix 1: Letter to the Respondents

29th September, 2020

Samuel Ngigi Mbugua
P. O. Box 5949 - 0200
Nairobi, Kenya.

I am a student at the University of Nairobi pursuing a Master Degree in Business Administration (MBA) of which study is part of the course requirement. My research topic is on **Innovation Strategy and Competitiveness of Fintech Companies in Nairobi, Kenya.** You have been identified as respondents to this study and I would therefore appreciate your participation by answering the questions provided.

All information gathered will not be shared and the respondents interest will not be compromised in any way. For more information about this study, do contact the Principal Investigator on Tel: 0720344688

I will appreciate for your cooperation

With kind regards,

.....

Samuel Ngigi Mbugua

Appendix II: Questionnaire

Section A: Background Information

1. Name of the company (Optional).....

2. What level of management are you?

- | | | | |
|----------------------|-----|---------------------|-----|
| a) Top Level | () | b) Middle level | () |
| c) Supervisory Level | () | d) Others (Specify) | () |

3. how many years have you worked with the company?

- | | | | |
|----------------------|-----|-----------------------|-----|
| a) Less than 5 years | () | b) 6 -10 years | () |
| c) 11 – 15 years | () | d) More than 15 years | () |

4. How many workers are there in your organization?

- | | | | |
|-----------------|-----|------------|-----|
| a) Less than 30 | () | b) 31 – 50 | () |
| c) 51 - 70 | () | d) Over 71 | () |

5. What is the age of the organization?

- | | | | |
|----------------------|-----|------------------|-----|
| a) Less than 10 year | () | b) 11 – 15 | () |
| c) 16 - 20 | () | d) Over 21 Years | () |

SECTION B: Innovation Strategies

6. Below is different innovation strategies adopted in your organization. Please indicate the extent to which you agree with the statement by ticking (√) in the box that it is the most appropriate according to your view. In reference to these, a five-point Likert-scale is used:

Key; 5) Strongly agree; 4) Agree; 3) Neutral; 2) Disagree; 1) Strongly disagree;

a. New product Development

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | The firm produces goods that comply technical specifications set by | | | | | |

| | | | | | | |
|---|---|--|--|--|--|--|
| | customers | | | | | |
| 2 | Our firm produces original products | | | | | |
| 3 | The firm has patented more than one product that it has developed | | | | | |
| 4 | We offer products that have been innovated and produced within the firm | | | | | |
| 5 | Our system support to customers is of high quality | | | | | |
| 6 | Our products are user friendly | | | | | |
| 7 | Our products have different features from the competitors | | | | | |
| 8 | Our firm produces products according to customer demands | | | | | |

What other new product development innovation practice is undertaken by your company.....
.....

b. Improvement of Existing Product

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 1 | The organization has endeavoured to improve the quality of our services | | | | | |
| 2 | The delivery speed of our services | | | | | |
| 3 | Improved productivity | | | | | |
| 4 | Cost of service offering | | | | | |
| 5 | Employee skills and involvement | | | | | |
| 6 | Delivery reliability | | | | | |
| 7 | Qualification of suppliers | | | | | |
| 8 | Reliability of our services | | | | | |

What other new product improvement innovation practice is undertaken by your company.....
.....

c. Improvement of Competitor Ideas

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|----------|----------|----------|----------|----------|
| 1 | We frequently collect data about our competitor products | | | | | |
| 2 | Our top managers discuss about our competitors | | | | | |
| 3 | Our employees are always instructed to collect and monitor competitor service offerings | | | | | |
| 4 | We respond rapidly to competitor service offerings | | | | | |
| 5 | We collaborate with competitors in new product R & D | | | | | |
| 6 | We have learned from our competitor technical know-how according to the development of commodities that are new. | | | | | |
| 7 | We share with our competitors the cost of running a technical product that we co-own | | | | | |

What other innovation from the improvement of a competitor idea does your organization undertake.....

d) Process Innovation

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|----------|----------|----------|----------|----------|
| 1 | The firm has introduced changes in the operational process currently as compared to the earlier period | | | | | |
| 2 | The firm adopts computer-aided operations in its process | | | | | |
| 3 | The firm keeps records during material delivery to the generation of the final product | | | | | |
| 4 | The firm continuously implements value engineering in its process to eliminate the non-value ones | | | | | |
| 5 | The firm operations utilizes interactive online process | | | | | |
| 6 | The speed of manufacturing has improved over the period without comprising on the product quality | | | | | |

What other process innovation have you put into practice in your company?

.....

e) Marketing Innovation

| Statement | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| My firm changes its product packaging design to increase sales | | | | | |
| The current marketing strategy is different to that that was adopted two years ago | | | | | |
| The firm has adopted new product promotion techniques | | | | | |
| The firm websites contains our products that explains their products and attributes | | | | | |
| Our market share of the product segment has been increasing as compared to two years ago | | | | | |
| The last customer survey carried out by the company shows a high level of customer satisfaction of our products | | | | | |

What other marketing innovation have you implemented in your firm?

.....

Section C: Organization Competitiveness

7. Below are organizational competitiveness indicators. Please indicate the extent to which these apply to your organization

Where, 5 = Greatly; 4 = Considerately; 3 = Moderately; 2 = Remotely; 1= Not at all

| | Statement | 5 | 4 | 3 | 2 | 1 |
|---|--|---|---|---|---|---|
| 1 | Our products are difficult to be copied by competitors in the pension sector | | | | | |
| 2 | We respond well to changes in the market | | | | | |

| | | | | | | |
|---|---|--|--|--|--|--|
| 3 | We keep changes in our consumers interests | | | | | |
| 4 | Our commodities changes are distinct | | | | | |
| 5 | Our commodities have remarkable benefit compared to those of our opponents | | | | | |
| 6 | Our speed of sharing competitor moves in the organization is good | | | | | |
| 7 | Our ability to collect strategic information from competitors for use in strategic planning is good | | | | | |
| 8 | We respond quickly to customer complains | | | | | |

THANK YOU SO MUCH FOR YOUR TIME.