STRATEGIC RESPONSES TO ENVIRONMENTAL CHALLENGES AND COMPETITIVE ADVANTAGE OF FINTECH FIRMS IN KENYA

ANNASTACIA NZIOKA

SUPERVISOR: DR. J.N. KAGWE

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER, 2017

DECLARATION

This research project is my original work and has not been presented to any other university for the award of a Master's degree.

Signed________________________________ Date _______________________________

ANNASTACIA NZIOKA

REG. NO: D61/64035/2013

This research project has been submitted for examination with my approval as the University supervisor.

Signed________________________________ Date __________________________________

SUPERVISOR: DR. J.N. KAGWE

LECTURER

UNIVERSITY OF NAIROBI

DEDICATION

This research project is dedicated to my family for to their continued sacrifice and support all through this research project. Their immense support and encouragement meant a lot. To my daughter Makena, may you soar to greater heights.

ACKNOWLEDGEMENT

I am grateful to my supervisor Dr. J.N. Kagwe for the great support and guidance extended to me to ensure that I successfully completed this research project.

I also take this opportunity to appreciate my fellow students and my lecturers from the University of Nairobi for their contribution in the completion of this project and my Master’s degree in Business Administration. May God bless you abundantly.

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

GDP	Gross Domestic Product
ICT	Information and Communications Technologies
OST	Open System Theory
P2P	Peer to Peer
RBVT	Resource Based View Theory
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences

ABSTRACT

Fintech companies major in the solving of financial problems by use of technology and hence they majorly invest in new ways of lending money to consumers and news ways of making or receiving payments. Rapid change in technology in the payments sector has changed the trend in the usage of the traditional banking models, by increasing financial inclusion as well as efficiency and effectiveness in financial services delivery. The objectives of the study were to identify the environmental challenges faced by Fintech companies in Kenya; to determine the response strategies adopted by Fintech companies in Kenya to the environmental challenges in the payment industry; and to examine if these response strategies adopted by the Fintech firms affect their competitive advantage. This study adopted a descriptive research design and the target population was the 114 departmental heads in the marketing, finance and product development departments in the thirty eight (38) Fintech companies in Kenya. A census was conducted. The study used primary data that was collected by use of a questionnaire. Thematic content analysis was used in the analysis of qualitative data. In addition, inferential statistics and descriptive statistics were utilized in the analysis of quantitative data. Quantitative data analysis was done with the help of SPSS) version 21. Descriptive statistics comprises of standard deviation, mean, frequencies and percentages. The study found that political factors, economic factors, technological factors and regulatory factors were affecting Fintech companies. However, business environment factors and social factors were not significantly affecting Fintech companies. The study also established that Fintech companies were using strategic responses such as cost leadership strategy, differentiation strategy and strategic alliances. Differentiation, cost leadership and merger and acquisitions strategies had a positive and a significant effect on the competitive advantage of Fintech companies in Kenya. However, focus and strategic alliance strategies had no significant effect on the competitive advantage of Fintech companies in Kenya. The study recommends that the government of Kenya should come up with strong monetary policies to reduce inflation and interest rates and at the same time reduce the foreign exchange rates. The study also recommends that the government of Kenya should ensure that the security and political environment calmness so as to create an appropriate business environment Fintech companies as well as other companies in Kenya.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Organizations, globally, are facing various dynamic environmental challenges in the current 21st century. Consequently, firms both locally and globally find themselves operating in a highly dynamic environment coupled with different levels of competitive actions and reactions. The external business environment encompasses forces outside organizational boundaries that help to shape the organization and may include economic, political, technological, social-cultural, legal and ecological factors (Mutua, 2013). An environment where changes are constant and difficult to predict is known as a turbulent environment. In this environment, the market stability is threatened by new technologies, new competitors and new products (Nderitu, 2009). In order to survive and remain competitive in the market, organizations must come up with response strategies to counter challenges resulting from the changing business environment. Response strategies demand that for an organization to match its environment, it should continuously change its actions. The industry in which a firm operates determines the degree to which the specific responses strategies will vary and these actions will in turn determine a firms' competitiveness and performance.

This research study was founded on the Open Systems Theory and the Resource Based View Theory. Open systems theory emphasizes that organizations interact regularly with external forces such as government agencies, macroeconomic factors, customers and suppliers (Wiersema & Bowen, 2008). The environment strongly influences organizations, while providing valuable resources that enhance the survival of the organization by inhibiting constraints in its environment. This is achieved by adjusting internal systems accordingly and often transmitting feedback to the environment. The resource based view theory specifies that the firm's competitive advantage and performance are mainly linked to the attributes of its capabilities and valuable resources that are costly to imitate.

Fintech companies refer to financial technology firms that define and develop financial services in digital platforms. These firms make use of new technology and innovation to compete in the market of traditional financial institutions and act as intermediations in financial services delivery. In Kenya, there are 38 Fintech companies. Fintech firms in Kenya have been facing diverse challenges including new entrants into the industry, increased consumers demands and increasing demand for payment services. How responsive an organization is to the environment determines its success. Since changes in the external environment have a direct or indirect influence on the organization, Fintech companies in Kenya have adopted different strategic responses to maintain their positions. The research study will therefore seek to identify the strategic responses embraced by Fintech Companies in Kenya in response to environmental challenges, and the influence of the responses adopted on their competitive advantage.

1.1.1 Environmental Challenges

External environment of an organization includes those factors outside the firm that affect its ability to operate. To maintain the competitiveness of an organization, the organization must strive to be unique. The external environment is sub-divided into two types: the macro environment and the micro environment. An environment where the factors affect the company's operations directly is the micro environment (Kampanje, 2014). Macro environment on the other hand, consists of general dynamics that a business has no control over. Micro environment is affected by the following five aspects; customers, suppliers, public perceptions, financiers, and marketing intermediaries. Factors that affect the macro environment include political, socio-cultural, economic, legal and technological environmental considerations (Karanja, 2009).

The business environment in the payments industry, just like in any other industry, is unstable and always changing. Complexity and turbulence are the major dimensions towards which the environment is changing rapidly more than before. The Fintech landscape has been dotted with technological advances causing a disruption of the traditional models of payments. With the quest for simple and innovative customer solutions and increasing need for financial inclusion, Fintech companies have to be aware of what is happening in the environment through regular scanning and analysis in order to know how to respond to such changes either proactively or reactively. Nderitu (2009) points out that organizations responsiveness and strategic aggressiveness determines the achievement of any organization relative to the environmental turbulence. Meanwhile, the environmental turbulence has different characteristics and therefore different resources and capabilities are required. There should always be a strategic fit between the levels of organizational adaptability and what the environment dictates

1.1.2 Strategic Responses

A strategy can be defined as an organization's overall plan or design chosen in order to react towards objectives set by the organization and it uses its resources to do so. According to Wiersema and Bowen (2008), strategy is the long term scope and direction taken by an organization and it gets advantage in an environment that is changing by configuring its resources thus fulfilling stakeholder's expectations. Mutua (2013) indicates that for organization to achieve its organizational objectives; strategies should be stipulated in an overall program for placement of resources and action. Coordination between objectives and strategies characterize an organization's efficiency and operational effectiveness. These parts should be integrated into a complete structure. Strategy is important to an organization as it helps it counter the challenges with due diligence. Where a strategy lacks, the organization is likely to encounter more business failure since it is like a ship without a radar.

According to Mintzberg (1999), response strategy is a tactical action taken by a firm in order to counter the influence of competitive advantage. For a strategy to form a dependable position in the firm, it is designed as either a defensive position or an offensive position. Strategic response is multi-dimensional in its approach and includes: economic efficiency, cost effectiveness, and responses associating to environmental change. The response may affect an organizations direction in terms of the economic, environmental, and technological aspects. These aspects are suitable growth prospects of the firm and the overall prospects of an investor. Firms competing in an industry have either explicit or implicit competitive strategy. A carefully structured process develops the explicit strategy while the implicit strategy is developed from the functions of the firm. A strategic response is of essence in coping with competition (Mintzberg, 1999).

Response strategies enable an organization to survive in a turbulent environment with certainty (Kampanje, 2014). Porter (2005) affirmed that firms need to examine their environments, both external and internal and adapt as required in order to retain competitive advantage. Scanning the environment continually goes hand in hand with formulating appropriate strategic responses such as differentiation, cost leadership and focus strategy. Mutua (2013) carried out a study on competitive strategies implemented by National Bank of Kenya to manage changes in the environment and found that the bank had adopted strategies such as adoption of emerging technologies, market segmentation and product diversification. Others included convergence with partners and an organizational culture that promotes innovation and focuses on customer's needs.

1.1.3 Competitive Advantage

Porter (1980) argued that when a company has an advantage over its competitors in protecting against competitive forces and securing customers then it has a competitive advantage. Competitive advantage sources include providing customer service which is superior, making the highest-quality product, providing customers more value for money, having a more convenient geographic location, and achieving lower costs than rivals. According to Polasik and Piotrowski (2016), competitive advantage can be described as an organization's set of features that are unique and the organization's products are perceived as superior in the target market and significant to its competitors. The development and globalization of new technologies has increased competition through the transformation of the market place thus, firms should differentiate themselves from their competitors and their rivals for them to survive. This can be done through forming and maintaining a competitive advantage.

A firm which has achieved a market share and profitability is said to have survived in the market and is therefore a competitive firm and its accomplishment is measured using the objective criteria which include; sales revenue, profit, market share, return on investment, and subjective criteria such as improve quality of delivered services and enhanced reputation with customer, suppliers, and competitors (Mutua, 2013). Competitive advantage is founded on the advantages that the competitors cannot imitate the firm easily and that the organizations should embed deeply the competitive advantage in terms of skills, resources, investment over time and culture.

1.1.4 The ICT Industry in Kenya

Information and Communications Technologies (ICT) is defined by the merging of the telecommunication industry and the computing and broadcasting industries. Therefore, ICT sector refers to the services and equipment that are related to the telecommunication, computing and broadcasting and all of which capture and display information electronically (Kwang, 2015). In the near future ICT will be of great significance since it will support accountability and transparency through reduced paper work, improving municipal services and information management, identification of resources and drawing patterns for improved decision making, and engaging youth and children in the growth process. In addition, ICT will impact the entire economy by increasing the overall capital deepening and consequently help raise labor productivity and help companies enhance their overall efficiency (Nderitu, 2009).

According to the Kenya Bureau of Statistics, Kenya has experienced substantial growth over the last period in ICT, whereby between 2013 and 2014 it saw positive growth of up to 8.4 per cent. An Economic Survey done in 2015 indicates that the Kenyan information and communication technology sector was worth approximately Sh138 billion by the year 2014. ICT sector contributed up to 8% of Kenya's GDP in 2016. In Kenya’s vision 2030, ICT will contribute to the economic growth of the country by ensuring accountability on the part of government officials, reducing the transaction cost, improving educational standards and increasing business efficiency. It will also raise the competitiveness of local businesses and increase productivity in the knowledge based economy. This will thus lead to increased GDP and the country will sustain a competitive advantage. In the recent past, the ICT sector in Kenya has experienced some significant changes in terms of infrastructure development, mobile penetration, utilization of mobile money, internet penetration, and online business opportunities like e-commerce.

1.1.5 Fintech Companies in Kenya

Fintech companies are financial technology firms that define and develop financial services in digital platforms. Therefore, Fintech companies comprise of companies that use innovation and new technology to compete in the market of traditional financial institutions and act as intermediations in financial services delivery. 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 still large, which provides an opportunity for the thirty eight Fintech companies to venture in. However, the increasing 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 the company to remain competitive in the Kenya market, it needs to adopt strategies that will counter the changing business environment.

1.2 Research Problem

The complexity and dynamism of the environment where firms operate implies that organizations will have to continually restructure their strategies for them to achieve and have a sustainable competitive advantage (Wiersema & Bowen, 2008). To respond to the environmental changes, a firm should continually scan the environment and come up with response strategies. Response strategies are focused at making changes in the status of a firm from current unwanted position to a more competitive and promising position in a way to ensure maximization of resources of a firm and delivery of goods socially and economically (Mutua, 2013). The most commonly used response strategies include technological, restructuring, human resource, culture change, diversification, market penetration, marketing and product development.

The Fintech industry comprises of companies that use innovation and new technology to compete in the market of traditional financial institutions and act as intermediations in financial services delivery. Fintech companies major in the solving of financial problems by use of technology. However, these companies have majorly invested in new ways of lending money to consumers and news ways of making or receiving payments (Polasik & Piotrowski, 2016). Rapid change in technology in the payments sector has changed the trend in the usage of the traditional banking models, by increasing financial inclusion as well as efficiency and effectiveness in financial services delivery (Mutua, 2013). Response strategies adopted by Fintech companies in Kenya include diversification, cost leadership, differentiation, focus, merger and acquisition and strategic alliance.

In Kenya, various studies on response strategies to the changing business environment have been limited to specific institutions and industries. Most of the studies have focused on the financial sector in Kenya, the telecommunication sector and the hotel industry. Different sectors in Kenya are regulated by different regulatory frameworks, have different organizational structures, different competition intensity and use different response strategies. For instance, Gacheri (2010) did a study on response strategies adopted by Tuskys supermarket to changing business environment in the retail chain industry and found that the most common strategic responses included differentiation, cost leadership and focus strategy. Langewa (2014) found that commercial banks were using Market Segmentation, Agency Banking Mobile Banking, Microfinance, cost reduction and technological advancements to respond to the changing business environment. In addition, Nderitu (2009) found that the Cooperative University College was using strategic responses like cost leadership and product improvement.

Although several studies have been done, none of them has focused on the Fintech companies in Kenya. This study therefore sought to answer the question: What strategic responses do Fintech companies in Kenya adopt to counter environmental challenges, and do these strategic responses adopted influence their competitive advantage?

1.3 Research Objectives

The objectives of this study were:

i. To identify the environmental challenges faced by Fintech companies in Kenya.

ii. To determine the response strategies adopted by Fintech companies in Kenya to the environmental challenges in the payment industry.

iii. To examine if these response strategies adopted by the Fintech firms affect their competitive advantage.

1.4 Value of the Study

The research findings of this research study made a contribution to theory and were of benefit to scholars and other researchers, policymakers and the Kenyan government and the management of both Fintech Companies in Kenya. This study adopted two theories: the open systems theory and the resource based view theory. The open system theory highlights the interaction of firms' internal environment and its external environment. Even though this theory has been used in the past in almost all types of organizations, it is not specific to the payment industry. This study therefore outlines the best way the open system theory can be used in describing the use of response strategies to the environment externally. The resource based view theory specifies that the firms' competitive advantage and superior performance fundamental sources and drivers are mostly related with their capabilities and resources which are costly to imitate and valuable. Although this theory has been used in almost all sectors, it is not specific to one sector and different organizations have different resources and capabilities, different legal framework and different organizational structures. This study indicates how the theory can be best utilized in the payment industry.

To scholars and other researchers, this study may be helpful in filling the existing research gap on response strategies of Fintech companies to challenges in the environment in the payment industry in Kenya. Consequently, the study highlighted the different environmental challenges in the industry and the consistent strategic responses hence contributing significantly to the already existing body of knowledge and theory building. It thus acted as a point of reference for future studies in the strategic management field especially on the concept of strategic responses.

Fintech Companies in Kenya have a major role in the state's economy hence their level of performance is very crucial to the government. Therefore, the research study ensures seamless operations in the industry by informing the formulation of policies by concerned shareholders. Furthermore, through the Communication Authority of Kenya and the Central Bank of Kenya the government were better placed to devise and introduce policy guidelines that will be appropriate and helpful to the industry players within the industry. To the management of Fintech Companies, the study provides information on the effectiveness of the response strategies assumed by the company to deal with the environmental challenges in the payment industry.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter evaluates the literature by different writers who have endeavored to analyze the strategic responses and competitive advantage on firms in the payments industry. The chapter is divided into several segments: theoretical framework, concept of response strategies, external business environment, competitive advantage, response strategies and completive advantage, conceptual framework and knowledge gap.

2.2 Theoretical Review

There are several studies done by various scholars on strategic responses and competitive advantage on firms in the payment industry. This study will however focus on two theories; open systems theory and the resource based view theory.

2.2.1 Open Systems Theory

Open System Theory (OST) was originally founded by Hungarian biologist Ludwig Von Bertalanffy in 1952. It defines the concept of a system as one characterized by an assemblage or combination of parts which are interdependent. From a biological perspective, the theory considers an organism as a combined system of interdependent structures and functions. A biological organism consists of cells and a cell comprises of molecules which should work in harmony for the organism for function.

From the sociological perspective, system theory is an organization transdisciplinary approach. A sociological system comprises of four things, namely; attributes, environment, internal relationships among objects and objects (Bastedo, 2014). According to Bernard, Redding & Schott (2004), objects are considered to be elements, parts, or variables within the system. Attributes are its objects, characteristics of qualities of a system and the properties. Every system has internal relationships that exist amongst its objects. In addition, a system exists in an environment (Bernard et al., 2004). A system, therefore, can be interpreted as a set of things that influence one another in an environment and forming a better pattern that is different from any of the parts. An important principle of general systems theory is that it focuses on interactions and relationships between objects. Another key principle is the distinction between isolated, closed and open systems (Bastedo, 2014). The exchange of information and matter with an external environment characterizes the open systems. On the contrary, in a closed system there is no exchange of information and matter between the internal environment of an organization and the external environment. Further, the isolated system has no exchange of elements (Bernard et al., 2004).

This theory is used to explain the influence of external environment challenges on Fintech companies and the response strategies used. Fintech companies operate like open systems and hence are significantly influence by environmental factors like competition, regulations, new entrants, technological changes among others. Open systems theory is linked with the resource dependency theory since it brings out the perspective that for an organization to survive, it is dependent on its association with the environment. Since the environment is the primary beneficiary of the organization outputs, the dynamic nature of the environment provides a feedback to the organization regarding its throughput and output. This theory confirms the interdependence relationship between the environment and the organization where they both need one another for success, growth and survival. The study will therefore use the theory to explain the relation between strategic responses and competitive advantage.

2.2.2 Resource Based View Theory

This theory was developed by Birger Wernerfelt in 1984. According to Wernerfelt (1984), the theory mainly lies on the package of intangible resources or valuable tangible which are at a firm's disposal. The theory's guiding principle strategy of a firm is a function of the resources that the firm owns. These resources determine the performance of the company in regard to its activities and how it betters its competitors. A company is considered successful if it has the best as well as most unique resources which are applicable for its business and strategy. To have a favorable position that is sustainable from a short-run competitive advantage, the organization needs resources that are diverse in nature and they should not be perfectly mobile. This will successfully lead into valuable which is neither substitutable without a great effort nor imitable. The firm will as a result have sustained its returns where the conditions are held constant (Wernerfelt, 1984). According to Khan and Khalique (2014), a capability is a resource which is special and is specifically organizationally fixed, it is not transferable, and should purpose to ensure that the resources that a firm possess are improved. Resources, on the other hand, is a stock of available factors controlled or and owned by the organization. Capabilities are therefore an organization's ability to organize the resources available in the organization. These resources are readily available and thus they can give little advantage since the competitors can buy them. Intangible resources on the other hand are the resources owned by the organization but cannot be touched. Examples of intangible resources are reputation, brand, trademarks and copyrights. The intangible resources are only developed over time and thus not easily imitated by the competitors and this leads to a competitive advantage (Khan & Khalique, 2014).

The implementation of various response strategies requires the utilization of resources such as equipment, human resource and finances. Therefore, the payment industry has to review its internal resources and identify which of these resources hold the qualities and can be used to derive competitive advantage. The payments industry is prone to competition and therefore for them to remain competitive they must identify and appropriately allocate their resources and capabilities. The resource based view theory indicates that resources are a vital determinant in a firm's performance. These resources encompass organizational processes, knowledge and information, attributes, information and knowledge and assets that help affirm in acquiring and developing strategies aimed at improving efficiency, effectiveness, awareness, image and quality of products and services, enable the organization acquire and develop strategies so as to improve its efficiency, awareness, effectiveness, quality, and image of services or products.

2.2.3 Criticism of the Theories

The Open System Theory has been criticized. Jayeoba (2013) indicated that there are more factors in the workplace other than those mentioned in the theory, and that there are no set absolute boundaries on the variables. Further, the contextual actors have considerably evolved since the proposition of the theory. Resource Based Theory, on the other hand, has also been criticized based on several factors. The theory has been considered as inapplicable in an environment that is dynamic. This is because it lacks a clear explanation on why some of the firms achieve better performance than others in the business organization that is ever changing (Barney, 2001). In addition, Eisenhardt and Martin (2000) indicated that it is not important to mention attributes of value, non-sustainability and inimitability in the Value, Rareness, Inimitability and Non-Substitutability (VRIN) analysis as they are only found in rare resources.

2.3 Response Strategies to Environmental Challenges

Tactical action taken by a firm to dispute the effect of competitor's competitive action is known as a response strategy (Mintzberg, 1999). To create a competitive position for a firm, strategic responses are designed and they take either a defensive or offensive position. The responses therefore may relate to changes in the environment, cost effectiveness and economic dependency. The business environment is changing and this brings about uncertainty that demand for adoption of emergent strategies in order to align the organization's operations to the changes. Porter (1985) argues that for firms to be aligned in an environment, they should change their methodology and to update their inner capacity to the methodology adopted.

Several studies have been done by various scholars to navigate on the various strategies that can be used to make their payment industries remain competitive. This study will discuss several studies done in various firms that are in the payments industry. In Kenya for example, according to Muthaura (2011) strategic responses applied to counter environmental threats, findings indicate technological adoption, and improving customer service and aligning with the demands of the regulators were the major responses. Lameck (2012) found that since companies are different they adopt strategies that are different namely reduction of prices, popularity of the product name, outsourcing on non-core functions investing in advertisement, offering unmatched customer care, targeting corporate customers, increased budget on research and developing solutions that are customized at different segments in the market.

In the state corporation, Were (2007) assessed that factors that were rated as being very significant in affecting response strategies by state corporations to environmental changes are organizational structure and control processes, and availability of resources. Mutwa

(2016) found that multinational corporations in Kenya adopted the use of instrument of information, participation of stakeholder strategy, disaster management and preparedness and insurance use in order to cope up with the investment shocks that have been identified.

In the Saccos, Kinyanjui (2012) reported that the Sacco industry has adopted restructuring strategies such as retrenchment, products and management and diversification strategies with the aim of increasing profitability which is done through increase in sales of the products, differentiation strategies on the market and monitoring and evaluation strategic responses.

The wildlife service has also adopted response strategies so as have sustainable competition in the challenging market. The following are the various strategies used. Market development done through the use of aggressive marketing strategy, introduction of new products such as park night dinners, bird watching and horse riding, tourism products have also been diversified to include rock climbing, commercial airing service and cycling within the park (Juma, 2011).

The banking industry has also remained competitive despite the changes in the environment. This is because of the various strategic responses put in place which include formation of stable organizational tires, mergers and acquisition, improved distribution channels geographical diversification, diversification of banking products, consolidation, diversification of customer base, on non-interest income increase and changes in business orientation (Ohanga, 2004).

With each industry formulating strategic responses, the environment in which they operate turns into an opportunity since the industry can cope with the threats appropriately. The strategic responses are therefore important in reducing the gap and acting as a bridge to the industry and the environment in which they operate. This therefore enables the industries achieve a competitive edge and are also in a position to remain competitively sustainable.

2.4 Environmental Challenges, Strategic Responses and Competitive Advantage

Everything outside an organization and that which affects the organizations operations is referred to as the external environment. The external environment consists of the political-legal, economic, technological, and socio-cultural dimensions (Ansoff, 1996). Organizations have to act and respond to what happens outside their premises if they are to remain competitive and survive the challenges posted by the operating environment. According to Porter (1998), the environment is not static but is prone to changes that affect the operations of the organization. The organization should therefore come up with strategies to help fit with its surrounding to deal with dynamic and uncertain environment. This can be done by understanding how the competitive advantage is changing. The organization can also look for opportunities to exploit the abilities which are strategic, adapt and seek to improve some areas in business, build awareness and understand current strategies and success. For an organization to survive, remain relevant and succeed, it should continuously match the environment, strategy and their internal capabilities (Ansoff & Mc Donnell, 1990). For an organization to remain competitive, the first step should be to execute a strategic diagnosis, which is to identify the type of organizational responsiveness and strategic aggressiveness of a given firm in order to meet the future challenges of its environment. The step helps an organization to change the strategic behavior thus an assurance of future success in the environment (Porter, 1985).

Ngari (2011) describes strategic responses as a group of actions and decisions leading to the formation and the application of a designed plan for the achievement of the objectives. The firm’s ability to command a competitive advantage in an industry is dependent on how practical strategic responses are. A strategy is therefore a bridge between the firm’s resources, opportunities and risks within the environment. For a firm to acquire sustainable competitive edge well-established and targeted response is a challenging weapon. This responses are obtained after an environmental analysis is done and the firm formulates strategies that will help respond to the threats in the business environment.

Different companies and institutions respond differently to the various environmental challenges that affect their organizations. They therefore formulate strategies to be used to cope with these challenges. In the United Kingdom Bernard, Redding and Schott (2004) conducted a research on comparative advantage and heterogeneous firms. The study found that a decrease in trade costs would influence firms to be more likely to be involved in exportation of products. The size of a firm and the number of firms increase more in an industry with a competitive advantage and job income that is greater in comparative advantage firms as compared to comparative disadvantage firms. In Palestine, Shehada and Farmbry (2010) conducted a study on strategic organizational responses to environmental pressures and found that the strategic responses included utilization of organizational resources, strategic leadership and adoption of information technology. This led to a competitive advantage in the organization. In Italy, Pogutz, Filippetti and Tyteca (2012) found that strategic responses included process innovation, product innovation and system innovation. The strategies therefore assisted the organization in having a sustainable competitive advantage.

In Tanzania, Hansen et al. (2015) conducted a study on strategic responses adopted in Tanzanian Food Industry and found that the responses included differentiation, cost leadership and value chain integration. These strategies assisted the food industry in being competitive. In Ghana, Awuah (2011) conducted a research on an evaluation of strategic responses in the achievement of competitive advantage in the Commercial Bank Limited of Ghana and the study used both qualitative and quantitative data. Qualitative data was collected through use of interviews and questionnaires. Quantitative data was obtained from the annual reports of Ghana commercial banks. The study concluded that since 1990 the bank had drawn up various strategic responses. It further stated that the bank enjoyed competitive advantage in the industry and the factor that contributed highly to the competitive advantage was the banks extensive branch network.

In Kenya, Muchoki (2016) carried out a research on the relationship between strategic response and fast food restaurants' competitive advantage in Nairobi. A descriptive research design was utilized. The research finding was that comparative advantage was achieved through the diversification, differentiation and cost advantage strategies.

Khadijah (2011) conducted a research study on competitive strategies utilized by Mumias Sugar Company in an effort to achievement of a competitive advantage. A case study was used in the research in order to assist the researcher explore the topic in depth. The use of primary and secondary data was employed and the primary data was collected by use of the interview guide method while secondary data was obtained from the organization's internal documents. From the qualitative data, key themes, concepts and arguments were collected through content. From the research, innovative strategies were used by Mumias Sugar Company with an aim of sustaining sales and market penetration. The Mumias Sugar Company has used these strategies to have a competitive advantage over other sugar companies which are its competitors.

2.5 Knowledge Gap

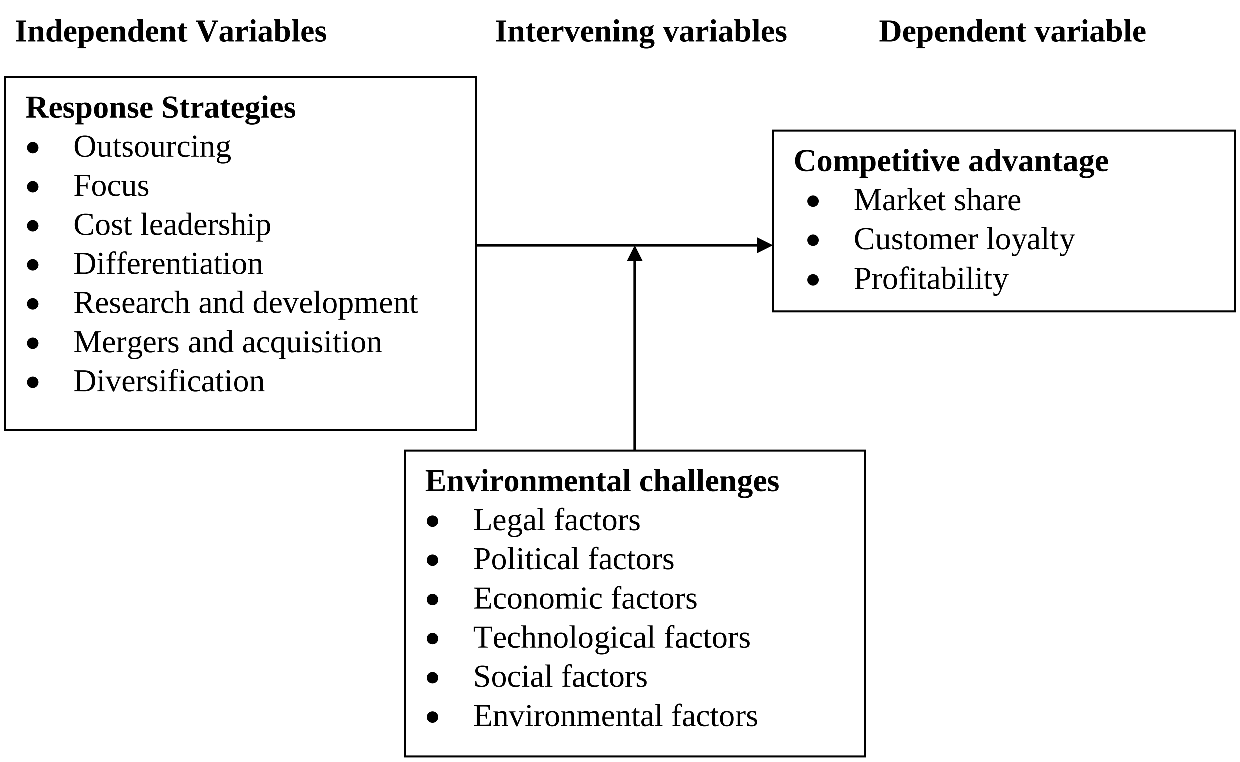
Although there have been various studies conducted in relation to strategic responses and competitive advantage in globally and in Kenya, these studies have been limited to specific organizations, industries and sectors, thus preventing the findings' generalization. In addition, studies conducted in this area have used different research designs. In the United States, Lee and Grewal (2004) conducted a study on new technologies' strategic responses and their influence on competitive advantage. Using a descriptive research design, the study found that the adoption of technology, improvement of communication channels and strategic alliances had an influence on competitive advantage. United States is a developed country while Kenya is a developing country and hence the findings of this study cannot be generalized to Kenya.

In Kenya, Muchoki (2016) carried out a study to investigate the influence of strategic responses on the competitive advantage of fast food restaurants in Nairobi. The study used a descriptive research design and found that differentiation, cost leadership and focus strategies had an influence on competitive advantage. In addition, Kuria and Waiganjo (2016) carried out a study on the relationship between strategic responses and competitive advantage in public universities in Kenya. By using a case study of the University of Nairobi, the study found that the adopted strategies including market penetration strategy had a significant influence on competitive advantage. These studies were limited to specific institutions and sectors and their findings can therefore not be generalized to the payment industry and more specifically Fintech Companies. This study therefore sought to fill the knowledge gap by doing a specific research on the payments industry in Kenya and the response strategies adopted by Fintech Companies.

2.6 Conceptual Framework

A conceptual framework refers to a diagrammatic structure comprising of abstract blocks that represent the experimental, analytical and observational aspects of a system or process being conceived. Conceptual framework also refers to a group of broad principles and ideas taken from pertinent enquiry fields and used to structure as subsequent presentation. The independent variables in this study are response strategies, while the dependent variable is competitive advantage.

Figure 2.1: Conceptual Framework



Source: Author

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter represents a detailed account of the methodology that was used in the research study. It comprises of the research design, population of the study, sample size, data collection method and data analysis method.

3.2 Research Design

As indicated by Kothari (2004) a research design refers to the procedures and plans used to collection and analyze raw data in a way whose aim is to combine relevance in the research study. This study employed a descriptive research design. Byrman (2003) defines descriptive research design as a design to obtain relevant and exact information in regard to the phenomenon, and where possible, obtain persuasive and suitable conclusions from the discovered facts. This study sought to explore the strategic responses to environmental challenges and competitive advantage of Fintech firms in Kenya, thus the research design was appropriate in describing the phenomenon.

3.3 Target Population

According to Greener (2008), population is a set of households, services, people, elements, and group of events or things under investigation. Mugenda and Mugenda (2003) established that target population is a part of the population that is drawn from the entire universe. The research study's target population was the departmental heads in the marketing, finance and product development in the thirty eight (38) Fintech companies in Kenya. A census was conducted.

3.4 Data Collection

The research used primary data that was gathered by use of a questionnaire. The questionnaire is a fast way of collecting data. Questionnaires also gave the researcher an inclusive data on a wide range of factors. The questionnaires comprised of both the structured and unstructured questions. Questions that are easy to analyze due to their immediate usage form are the structured questions while the unstructured questions are useful since they always encourage a respondent to give felt responses and in-depth responses without holding back any information (Greener, 2008). The researcher also obtained a letter from the University of Nairobi and the letter was used for data collection. The researcher gathered responses from three departments from each of the 38 Fintech firms.

3.5 Data Analysis

According to Kothari (2004), application of statistical techniques, developing summaries and reducing accumulated data into a managable size is known as data analysis The questionnaire that was used in this study generated both qualitative and quantitative data. Thematic content analysis was used to analyse qualitative data and was presented in a prose form. Descriptive and inferential statistics were used in the analysis of quantitative data and this was through the use of Statistical Package for Social Sciences (SPSS) version 21. Descriptive statistics included frequencies, measures of central tendencies (mean), percentages and measures of dispersion (standard deviation). Data acquired was then presented in graphs and tables.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis, interpretation of the results based on the study objectives, and discussion of the findings. The chapter begins with the respondents' background information followed by environmental challenges faced by Fintech companies, response strategies adopted to the external environmental challenges, competitive advantage, correlation analysis and the discussion of the findings.

A census was carried out. The respondents were 114 departmental heads of Fintech companies, out of which 64 responses were generated and this gave a response rate of 56.14%. 100% response rate was not achieved. This was because not all the questionnaires were fully filled by the respondents. Conversely, according to Kothari (2004) adequate analysis is above 50% and therefore 56.14% response rate was good for the study.

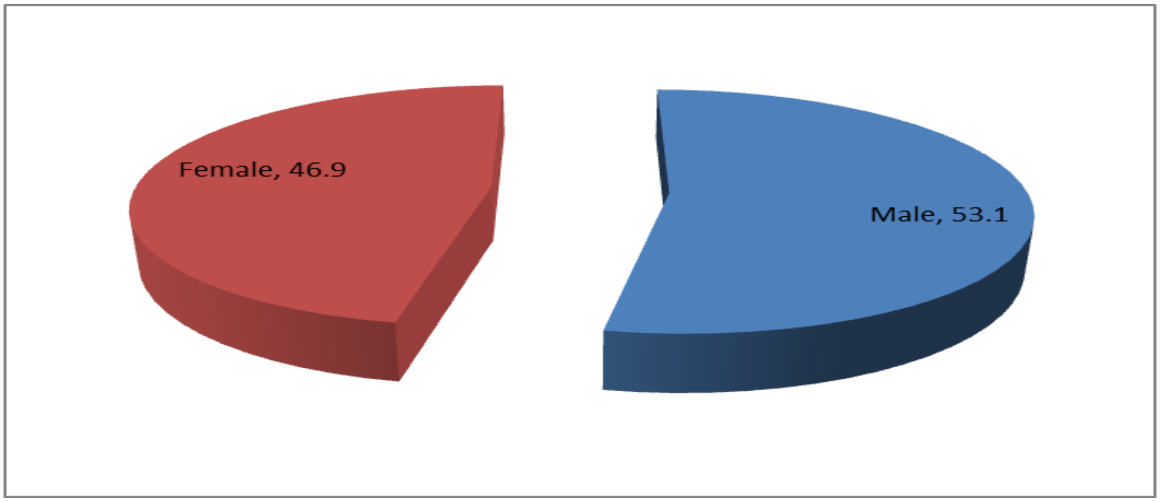
4.2 Demographic Information

The demographic information presented is on the gender, age bracket, highest level of education, the duration which the company has had its operations in Kenya and the department which the respondents works in.

4.2.1 Gender of the Respondents

The first demographic characteristic of departmental heads was gender. The results were shown in figure 4.1.

Figure 4.1: Gender of the Respondents



Source: Research data

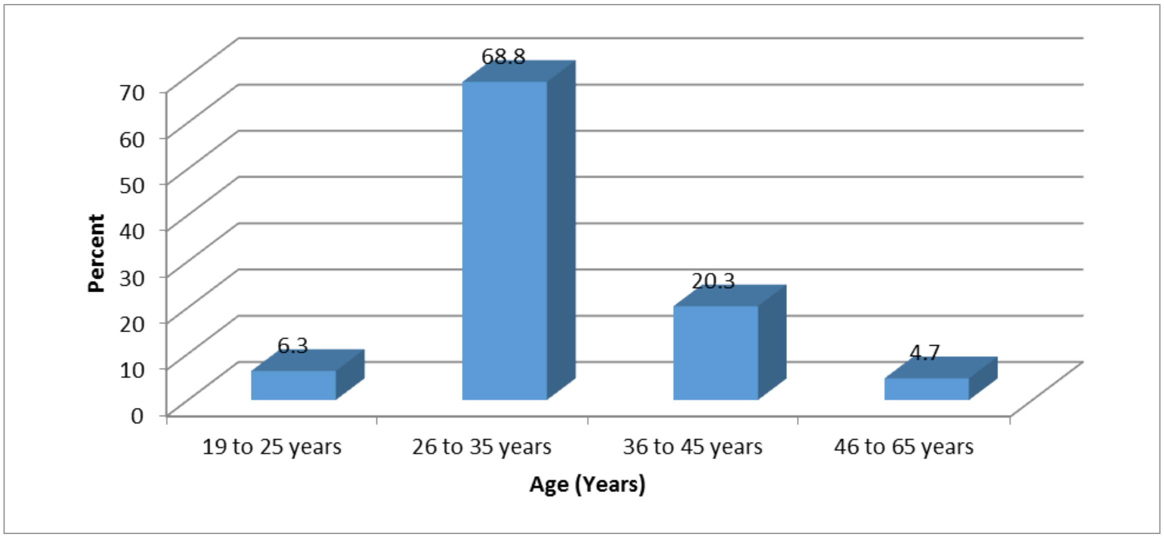
From the findings, 53.1% of the departmental heads responded that they were male while 46.9% indicated that they were female. This stipulates that majority of the departmental heads in Fintech companies in Kenya were male.

4.2.2 Respondents' Age Bracket

The second demographic characteristic of the departmental heads was age bracket. The findings are as indicated in figure 4.2

From the findings, 68.8% of the departmental heads indicated that they were aged between 26 and 35 years, 20.3% indicated between 36 and 45 years, 6.3% indicated 19 to 25 years while 4.7% indicated between 46 to 65 years. From the findings, most of the departmental heads in Fintech companies in Kenya were aged between 25 and 35 years.

Figure 4.2: Respondents' Age Bracket



Source: Research data

4.2.3 Highest Level of Education of the Respondents

The departmental heads were asked to specify their highest level of education. The results were as presented in table 4.1.

Table 4.1: Highest Level of Education the Respondents

	Frequency	Valid Percent
Secondary	5	7.8
College diploma	7	10.9
Undergraduate Degree	38	59.4
Master's Degree	13	20.3
PhD	1	1.6
Total	**64**	**100.0**

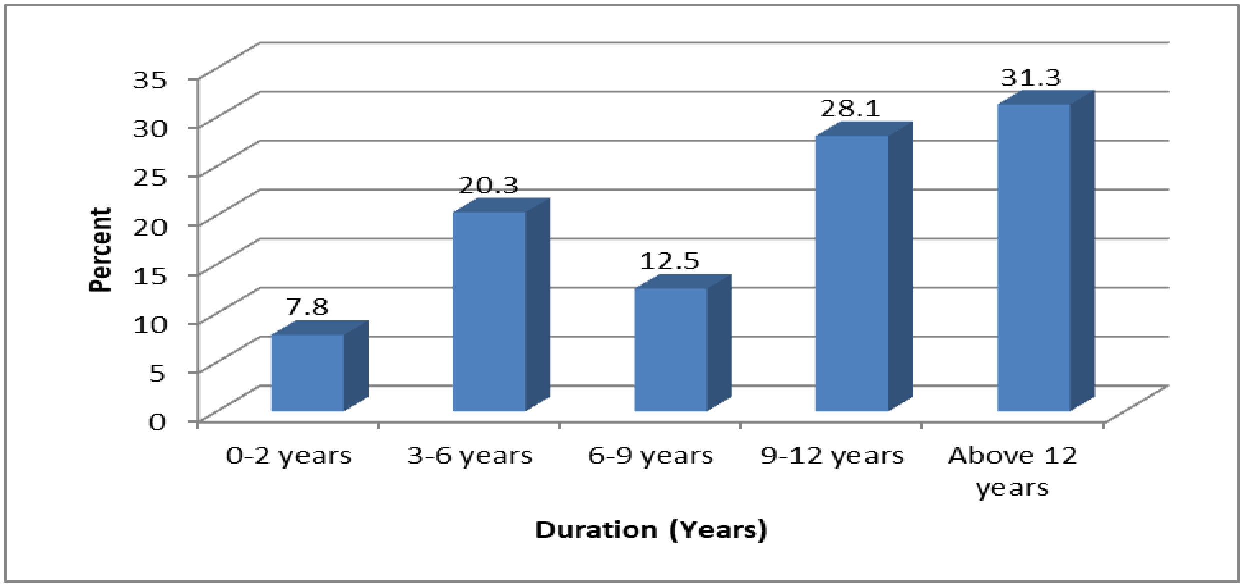
Source: Research data

From the findings, 59.4% of the departmental heads were had undergraduate degrees, 20.3% indicated that they had master's degrees, 10.9% indicated that they had college diplomas, 7.8% indicated that they had secondary education and 1.6% indicate that they had PhDs. The findings show that most of the departmental heads in the Fintech companies had undergraduate degrees.

4.2.4 Duration the Organization has had its Operations in Kenya

The departmental heads were further asked to indicate how long their companies had been in operation in Kenya. The results are as presented in figure 4.3.

Figure 4.3: Duration which the organization has had its operations in Kenya



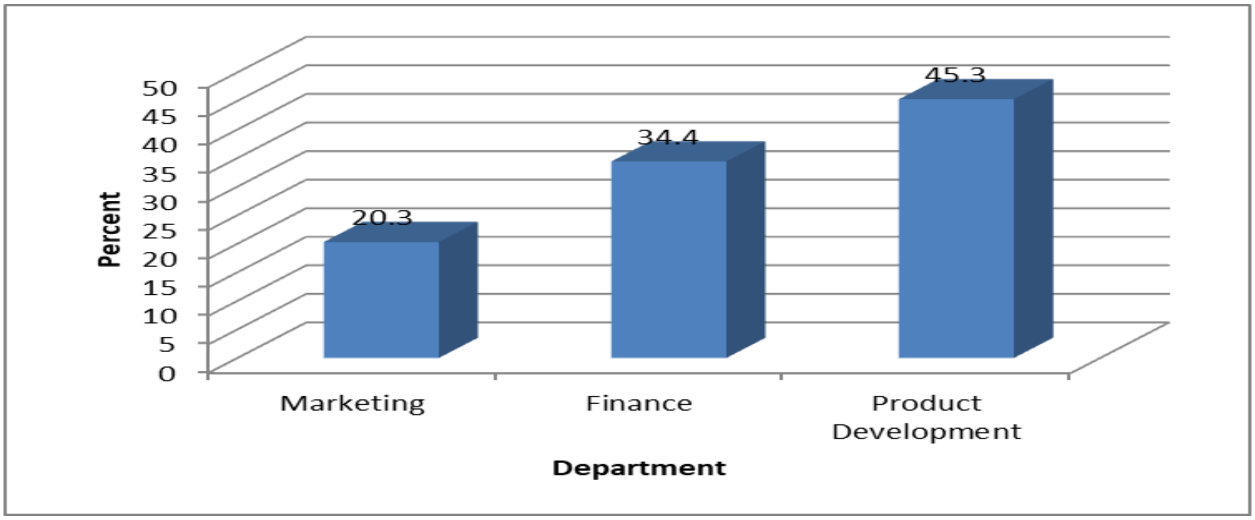
Source: Research data

From the findings, 31.3% of the departmental heads indicated that their organizations had been in operation in Kenya for more than 12 years, 28.1% indicated for between 9 and 12 years, 20.3% indicated for between 3 and 6 years, 12.5% indicated for 6 and 9 years while 7.8% indicated for 2 years and below. The results imply that most of the Fintech companies had been in operation in Kenya for more than 12 years.

4.2.5 Department Which the Respondents Work

The respondents were also asked to indicate their department in their organization. The results are as presented in figure 4.4.

Figure 4.4: Department Which the Respondents Work



Source: Research data

From the findings, 45.3% indicated that they were working in the Product Development department, 34.4% indicated that they were working in the Finance department while 20.3% indicated that they were working in the Marketing department. From the findings, most of the departmental heads in this study were from the Product Development department.

4.3 Environmental Challenges Faced by Fintech Companies in Kenya

The study was to determine the environmental challenges faced by Fintech companies in Kenya. Political, economic, social, technological, legal and business environment factors are the environmental factors considered in this study. The departmental heads were requested to stipulate the extent to which their organizations faced different environmental challenges. They were to use 1 to represent no extent at all, 2 to represent low extent, 3 to represent moderate extent, 4 to represent great extent and 5 to represent very great extent. The findings are as presented in table 4.2.

Table 4.2: Environmental Challenges Faced by Fintech Companies in Kenya

	Mean	Std. Deviation
Political factors		
Volatile political environment	3.546	.974
Security in the country	3.625	1.046
Economic factors		
High inflation rate	3.656	1.011
High interest rates	3.578	1.165
Fluctuation of foreign exchange rates	3.484	1.140
Social factors		
Diverse culture	2.390	1.092
Language barrier	2.046	.966
Population segmentation	2.140	.940
Technological factors		
Technological developments in the market	4.000	1.154
Rapid change of technology	4.078	1.058
Legal Factors		
Regulatory factors in the economy	3.546	1.167
Policies on entry to the industry	3.421	1.192
Regulations governing labor markets	3.125	1.119
Business environment factors		
Threat of new entrants in the industry	3.375	1.031
Relative bargaining power of firm's suppliers	3.046	.998
Relative bargaining power of the firm's customers	3.341	.995
Threat of substitute products and services	3.484	1.098
Nature of the relations with labor markets	3.171	1.189

Source: Research data

In relation to political factors the departmental heads indicated that security in the country affected Fintech firms to a great extent as shown by the mean of 3.625. They also indicated that volatile political environment affected Fintech companies to a great extent as indicated by the mea of 3.546.

In relation to the economic factors, the departmental heads pointed out with a mean of 3.656 that high inflation rate affected Fintech companies to a great extent. They also indicated with a mean of 3.578 that high interest rates affected Fintech companies. However, they indicated with a mean of 3.484 that fluctuation of foreign exchange rates affected Fintech companies to a great extent.

Regarding social factors, the respondents indicated that diverse cultures affected Fintech companies to a low extent as shown by a mean of 2.390. They also indicated with a mean of 2.140 population segmentation affected Fintech companies to a low extent. Further, with a mean of 2.046 the departmental heads indicated that language barrier affected Fintech companies to a low extent.

Regarding to the technological factors, the departmental heads indicated that rapid change of technology affected Fintech firms to a great extent as shown by a mean of 4.078. In addition, they indicated with a mean of 4.000 that technological developments in the market affected Fintech companies to a great extent.

In regard to the legal factors, the departmental heads indicated that regulatory factors in the economy affected Fintech companies to a great extent as shown by a mean of 3.546. However, they indicated that policies on entry to the industry and regulations governing labor markets affected Fintech companies to a moderate extent as shown by means of 3.421 and 3.125, respectively.

In relation to the business environment factors, the departmental heads indicated that threat of substitute products and services affected Fintech companies to a moderate extent as shown by a mean of 3.484. In addition, they indicated that threat of new entrants in the industry and relative bargaining power of the firm’s customers affected Fintech companies to a moderate extent as shown by means of 3.375 and 3.341, respectively.

They also indicated with means of 3.171 and 3.046 that nature of the relations with labor markets and relative bargaining power of firm’s suppliers, respectively, affected Fintech companies to a moderate extent.

4.4 Response Strategies Adopted to the External Environmental Challenges

The study was to determine the response strategies adopted to the external environmental challenges. The departmental heads were asked to mark the extent to which they agreed with various statements on strategies adopted by their companies. They were to use 1 to represent strongly disagree, 2 to represent disagree, 3 to represent neutral, 4 to represent agree and 5 to represent strongly agree. The findings are as presented below:

Table 4.3: Response Strategies Adopted to the External Environmental Challenges

	Mean	**Std. Deviation**
Cost leadership		
Our organization maximizes on profitability through cost reduction strategies	3.609	1.242
Our organization charges lower prices than our competitors	3.140	.870
Our organization improves on service delivery process to cut on waste and duplication	3.906	1.034
Our organization minimizes cost through innovation	3.796	1.170
Differentiation		
Our organization offers products/services with unique characteristics	3.890	1.070
Our organization creates and maintains products/services with appealing features	3.718	1.105
Our organization has a dedicated new product development function	3.515	1.259
Our organization is always the first to introduce new products before our competitors	3.156	1.129
Our organization always strives to lead in product/service delivery in our sector	3.734	.9798
Focus		
Our organization offers tailor made products/services to our clients	3.796	1.086
Our organization specializes in a specific geographical market within Kenya	2.859	1.15287
Our organization constantly targets a specific market segment over other segments	3.265	1.042
Our organization always strives to remain in its target market	3.609	1.316

Merger and Acquisition		
Our organization has used acquisition strategy	3.468	1.321
Our firm is planning to use acquisition strategy	3.218	1.278
Strategic Alliance		
Organization has formed alliances with other firms in Kenya	3.609	1.292
Our organization has formed alliances with other firms outside Kenya	3.546	1.35611

Source: Research data

In relation to cost leadership strategy, the departmental heads agreed that their organization improve on service delivery process to cut on waste and duplication as indicated by the mean of 3.906. They also agreed with a mean of 3.796 that their organizations minimize cost through innovation. With a mean of 3.609 the departmental heads agreed that their organizations maximize on profitability through cost reduction strategies. However, they were neutral on the statement indicating that their organizations charge lower prices than their competitors as indicated by the mean of 3.140.

In relation to the differentiation strategy, the respondents agreed that their organizations offer products/services with unique characteristics as shown by a mean of 3.890. They also agreed that their organizations always strive to lead in product/service delivery in their sector as shown by a mean of 3.734. In addition, they agreed that their organizations create and maintain products/services with appealing features indicated by a mean of 3.718. The departmental heads also agreed with a mean of 3.515 that their organizations had a dedicated new product development function. However, they were neutral on the statement indicating that they were always the first to introduce new products before their competitors, as shown by a mean of 3.156.

In relation to the focus strategy, the respondents agreed that their organizations offer tailor made products/services to their clients as shown by a mean of 3.796. They also agreed that their organizations always strive to remain in their target market as shown by the mean of 3.609. The departmental heads were neutral on the statement indicating that their organizations constantly target a specific market segment over other segments as shown by a mead of 3.265. They were also neutral on the statement indicating that their organizations specialize in a specific geographical market within Kenya as shown by a mean of 2.859.

In relation to mergers and acquisition strategy, the departmental heads were neutral on the statement indicating that their organizations had used acquisition strategy as shown by a mean of 3.468. With a mean of 3.218, the departmental heads were also neutral on the statement indicating that their firms were planning to use acquisition strategy.

In relation to strategic alliance strategy, the departmental heads agreed that their organizations had formed alliances with other firms in Kenya and as shown by a mean of 3.609. They also agreed that their organization had formed alliances with other firms outside Kenya as indicated by a mean of 3.546.

4.5 Correlation Analysis

The study used the Pearson product-moment correlation analysis in examining if the response strategies adopted by the Fintech firms were affecting their competitive advantage. In Pearson correlation analysis, a correlation coefficient of negative one (-1) shows an inverse association, a correlation coefficient of positive one (+1) shows a direct association and zero (0) shows that there is no association at all. The results are presented in table 4.4.

The findings indicated that cost leadership strategy had a positive and significant effect on the competitive advantage of Fintech companies in Kenya (r= 258, p=0.040).

In addition, the results show that differentiation strategy had a positive and a significant effect on the competitive advantage of Fintech companies in Kenya (r=0.451, p=0.000).

The findings also indicated that merger and acquisitions strategy had a positive and significant effect on the competitive advantage of Fintech companies in Kenya (r=0.282, p=0.024).

However, strategic alliance strategy had no significant effect on the competitive advantage of Fintech companies in Kenya (r=0.134, p=0.290).

Focus strategy had no significant effect on the competitive advantage of Fintech companies in Kenya (r=0.052, p=0.862).

Table 4.4: Correlation Coefficients

		Competitive advantage	**Cost leadership**	**Differentiation**	**Focus**	**Mergers and acquisitions**	**Strategic Alliance**
Competitive advantage	Pearson Correlation	1	.258*	.451**	.052	.282*	.134
	Sig. (2-tailed)		.040	.000	.682	.024	.290
	N	64	64	64	64	64	64
Cost leadership	Pearson Correlation	.258*	1	.586**	.217	.121	.176
	Sig. (2-tailed)	.040		.000	.085	.340	.163
	N	64	64	64	64	64	64
Differentiation	Pearson Correlation	.451**	.586**	1	.360**	.237	.344**
	Sig. (2-tailed)	.000	.000		.003	.059	.005
	N	64	64	64	64	64	64
Focus	Pearson Correlation	.052	.217	.360**	1	.186	.147
	Sig. (2-tailed)	.682	.085	.003		.141	.247
	N	64	64	64	64	64	64
Mergers and acquisitions	Pearson Correlation	.282*	.121	.237	.186	1	.397**
	Sig. (2-tailed)	.024	.340	.059	.141		.001
	N	64	64	64	64	64	64
Strategic Alliance	Pearson Correlation	.134	.176	.344**	.147	.397**	1
	Sig. (2-tailed)	.290	.163	.005	.247	.001	
	N	64	64	64	64	64	64

Source: Research data

4.6 Discussion of the Findings

The study found that political factors such as security in the country and volatile political environment affected Fintech companies to a great extent. The findings agree with Kampanje (2014) findings that political factors affect the performance of companies. The study found economic factors such as high inflation rate, high interest rates and fluctuation of foreign exchange rates affected Fintech companies to a great extent. These findings match with Muthaura (2011) argument that the economic performance of a country affects the performance of the companies operating in different sectors. The established technological factors like rapid change of technology and technological developments in the market affected Fintech companies to a great extent. These findings are in line with Lameck (2012) argument that the rapid technological changes among Fintech companies was a challenge to the permanence of different organizations.

In regard to legal factors, regulatory factors in the economy affected Fintech companies to a great extent while policies on entry to the industry and regulations governing labor markets moderately affected Fintech companies. According to Kinyanjui (2012) regulatory factors in the economy can negatively or positively affect the performance of organizations. The study found that business environment factors such as threat of substitute products and services, threat of new entrants in the industry, relative bargaining power of the firm’s customers, nature of the relations with labor markets and relative bargaining power of firm’s suppliers moderately affected Fintech companies.

Regarding social factors, the study found that diverse culture, population segmentation and language barrier had a low effect on Fintech companies. These findings are contrary to Shehada and Farmbry (2010) findings that social factors significantly influence the performance of organizations.

The study established that cost leadership strategy was being used in Fintech companies. In addition, Fintech companies were improving their on service delivery processes to cut on waste and duplication. In addition, the companies were minimizing cost through innovation and maximizing profitability through cost reduction strategies. These findings agree with Ngari (2011) findings that companies were using costly leadership as a strategy to dealing with the environmental challenges in the market. In relation to the differentiation strategy, the study found that Fintech companies were using differentiation. The study established that the companies were offering products/services with unique characteristics. In addition, they were creating and maintaining products/services with appealing features and had a dedicated new product development function. Also, Fintech companies were striving to lead in product/service delivery in the market. The findings tally with Redding and Schott (2004) conclusions that in the United Kingdom different companies were using differentiation strategy in response of environmental challenges in the market.

The study found that Fintech companies were offering tailor made products/services to their clients and were striving to remain in its target market. In addition, the companies were moderately targeting a specific market segments over other segments and were moderately specializing in specific geographical markets within Kenya. These findings are contrary to Shehada and Farmbry (2010) findings technological companies in Palestine were using focus strategy to deal with environmental challenges. The study found that Fintech companies were moderately using, and planning to use, acquisition strategy. These findings are contrary to Pogutz, Filippetti and Tyteca (2012) findings that mergers and acquisition was one of the most commonly used strategies in dealing with competition. The study further revealed that Fintech companies had formed alliances with other firms in Kenya and outside Kenya. These strategies were essential in ensuring that a firm remains competitive.

The study found that differentiation strategy and cost leadership strategy had a positive and a significant effect on the competitive advantage of Fintech companies in Kenya. However, focus strategy had no significant effect on the competitive advantage of Fintech companies in Kenya. The study also found that merger and acquisitions strategy had a positive and significant effect on the competitive advantage of Fintech companies in Kenya. Strategic alliance as a strategy had no significant effect on the competitive advantage of Fintech companies in Kenya.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusions, recommendations, limitations and suggestions for further study. The main objective of the study is to determine strategic responses to environmental challenges and competitive advantage of Fintech firms in Kenya.

5.2 Summary of Findings

The study found that political factors such as security in the country and volatile political environment affected Fintech companies to a great extent. The study also found economic factors such as high inflation rate, high interest rates and fluctuation of foreign exchange rates affected Fintech companies to a great extent. The established technological factors like rapid change of technology and technological developments in the market affected Fintech companies to a great extent. In addition, regulatory factors in the economy affected Fintech companies to a great extent while policies on entry to the industry and regulations governing labor markets moderately affected Fintech companies.

The study found that business environment factors such as threat of substitute products and services, threat of new entrants in the industry, relative bargaining power of the firm's customers, nature of the relations with labor markets and relative bargaining power of firm's suppliers moderately affected Fintech companies. Regarding social factors, the study revealed that diverse culture, population segmentation and language barrier had a low effect on Fintech companies.

The study established that cost leadership strategy was being used in Fintech companies. In addition, Fintech companies were improving their on service delivery processes to cut on waste and duplication. Further, the companies were minimizing cost through innovation and maximizing profitability through cost reduction strategies. In relation to the differentiation strategy, the study found that Fintech companies were using differentiation. The study established that the companies were offering products/services with unique characteristics. In addition, they were creating and maintaining products/services with appealing features and had a dedicated new product development function. Also, Fintech companies were striving to lead in product/service delivery in the market.

The study found that Fintech companies were offering tailor made products/services to their clients and were striving to remain in its target market. In addition, the companies were moderately targeting a specific market segments over other segments and were moderately specializing in specific geographical markets within Kenya. The study found that Fintech companies were moderately using, and planning to use, acquisition strategy. The study further revealed that Fintech companies had formed alliances with other firms in Kenya and outside Kenya. These strategies were essential in ensuring that a firm remains competitive.

In relation to competitive advantage, the study found that use of response strategies had led to increase in market share of organization, marketing activities, profitability, improvement in quality, investment and growth has increased, return on assets, return on investment, return on equity and high customer's loyalty thus competitive advantage. Specifically, the study found that differentiation strategy and cost leadership strategy had a positive and a significant effect on the competitive advantage of Fintech companies in Kenya. However, focus strategy had no significant effect on the competitive advantage of Fintech companies in Kenya. The study also found that merger and acquisitions strategy had a positive and significant effect on the competitive advantage of Fintech companies in Kenya. However, strategic alliance strategy had no significant effect on the competitive advantage of Fintech companies in Kenya.

5.3 Conclusion

The study concludes that political factors, economic factors, technological factors and regulatory factors were affecting Fintech companies to a great extent. However, business environment factors and social factors were affecting Fintech companies to a moderate extent. The study concludes that Fintech companies were using strategic responses such as cost leadership strategy, differentiation strategy and strategic alliances in responding to external business environmental challenges. However, the companies were moderately using focus strategy and merger and acquisition. The study concludes that differentiation strategy and cost leadership strategy and merger and acquisitions strategy had a positive and a significant effect on the competitive advantage of Fintech companies in Kenya. However, focus and strategic alliance as strategies had no significant effect on the competitive advantage in Kenyan Fintech firms.

5.4 Recommendations for Policy and Practice

The study found that economic factors such as high inflation rate, high interest rates and fluctuation of foreign exchange rates were environmental challenges facing Fintech companies in Kenya. The study recommends that the Kenyan government instigate strong monetary policies to reduce inflation and interest rates and at the same time reduce the foreign exchange rates.

The study found that political factors such as volatile political environment and security in the country were environmental challenges facing Fintech companies in Kenya. The study advocates that the government of Kenya should ensure that the security and political environment calmness so as to create an appropriate business environment Fintech companies as well as other companies in Kenya.

The study also found that most of the Fintech companies were not using mergers and acquisitions as a response strategy. The study proposes that these companies should consider using this strategic response in responding to the changing business environment in Kenya.

5.5 Limitations of the Study

One of the challenges that faced the study was that some departmental heads failed to fill the questionnaires as they were hesitant to do so due to the sensitivity of the requested information or were busy with their daily operations.

In other instances, the researcher did not get the departmental heads and had to request for help from the junior staff. Some of the departmental heads felt as if they were being investigated and hence were hesitant to fill the questionnaires. The researcher however worked at winning their confidence by ensuring participants confidentiality.

5.6 Recommendations for Further Research

This study was limited to Fintech companies in Kenya and hence its findings cannot be generalized to other sectors in Kenya. The study therefore suggests further studies on Kenya’s Commercial Banks’ responses to environmental challenges, as they are also increasingly adopting technology in delivery of their product and services. The study also suggests further research on the factors affecting implementation of response strategies to environmental challenges among Fintech companies in different geographical locations in Kenya.

REFERENCES

Awuah, L. (2011). *An evaluation of strategies for achieving competitive advantage in the banking industry: the case of Ghana commercial bank limited*. Retrieved from; http://ir.knust.edu.gh

Barney, J.B. (2001). Is the resource based view a useful perspective for strategic management research? Yes. *The Academy of Management Review, 26* (1)

Bastedo, M. N. (2014).*Open Systems Theory.* Retrieved from; http://citeseerx.ist.psu.edu

Beer, M. & Walton, E. (2005). Developing the Competitive Organization: Interventions and Strategies. *American Psychologist, 45*(2), 154-61.

Bernard, A. B., Redding, P. & Schott, P.K. (2004). *Comparative advantage and heterogeneous firms.* Retrieved from; https://www.ifs.org.uk

Bryman, A. & Cramer, D. (2012). *Quantitative Data Analysis with SPSS Release for Windows.* New York: Routledge

Bryman, A. (2003). Integrating quantitative and qualitative research: how is it done?' *Qualitative research*, 6(1), 97 – 113.

Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods.* New Delhi: Tata McGraw Hill.

Eisenhardt, K. M. & Martin J. A. (2000). Dynamic capabilities: what are they? *Strategic Management Journal, 21,* 1105–1121.

Elung'ata, E. (2014). *Response Strategies Adopted By Mobile Phone Companies in Kenya to Changes in the Telecommunication Industry.* Retrieved from http://erepository.uonbi.ac.ke/

Gacheri, A. (2010). *Strategic responses by Tuskys supermarket to changing competitive environment*. Retrieved from http://erepository.uonbi.ac.ke/handle/11295/5429

Greener, S.L. (2008). *Business Research Methods.* Copenhagen: Ventus Publishing ApS.

Hansen, M.W., Langevang, T., Rutashobya, L. & Urassa, G. (2015). *Strategic response under market and institutional uncertainty in the Tanzanian food processing industry.* Retrieved from http://openarchive.cbs.dk/

ICT Authority (2015). *Kenya ICT Board ICT Monitoring and Evaluation Indicators*. Retrieved from http://icta.go.ke/pdf/Julisha%20Final%20Report%201.pdf

Jayeoba, F. I. (2013). A Critique of the Systems Theory of J. T. Dunlop. *International Journal of Academic Research in Economics and Management Sciences 2*(2)

Juma, O. A. (2011*) strategic responses by Kenya wildlife service towards realization of Kenya vision 2030.* Retrieved from; http://erepository.uonbi.ac.ke

Kampanje, B. (2014). PESTEL analysis of Malawi's non-life insurance industry. *African Journal of Economic and Management Studies, 5*(1), 1-13.

Karanja, D. M. (2009). *Competitive strategies and performance of firms in the software industry in Kenya.* Retrieved from http://erepository.uonbi.ac.ke/handle/11295/13757

Khadijah, H. (2011). *Competitive strategies employed by Mumias Sugar Company to develop competitive advantage.* Retrieved from http://erepository.uonbi.ac.ke

Khan, M.S. & Khalique, M. (2014). Response Strategies and Reality of External Environment of Organizations in Contemporary Business Environments. *Business Management and Strategy, 5*(2), 34-48.

Kiioh, L. K. (2015). *Influence of project management leadership on performance of information technology projects: a case of fin-tech Kenya.* Retrieved from http://erepository.uonbi.ac.ke/handle/11295/92887

Kinyanjui, F. (2012). S*trategic responses to environmental challenges facing asil1 Sacco limited.* Retrieved from http://erepository.uonbi.ac.ke

Kothari, C. R. (2004). *Research methodology: Methods and techniques.* New Delhi: New Age International (P) Limited Publishers.

Kuria, D.R. & Waiganjo, E.W. (2016). Response Strategies to Competitive Advantage by Public Universities in Kenya: A Case of the University of Nairobi. *International Journal of Scientific and Research Publications, 6*(5), 547-567.

Kuria, R. & Waiganjo, E.W. (2016). Strategic Responses to Competitive Advantage by Public Universities in Kenya: A Case of the University of Nairobi. *International Journal of Scientific and Research Publications, 6*(5), 547-554.

Kwang T. W. (2015) *the impact of ICT on the global economy*. Retrieved from https://www.enterpriseinnovation.net

Lameck K (2012) *strategic responses to competitive environment by mobile telephony firms in Kenya*. Retrieved from; http://erepository.uonbi.ac.ke

Lee, R.P. & Grewal,R. (2004). Strategic Responses to New Technologies and Their Impact on Firm Performance. *Journal of Marketing, 68*(4), 157-171.

Lengewa, J. S. (2014). *Strategic Responses by Commercial Banks to Competition in Provision of Retail Banking Services in Kenya.* Retrieved from http://erepository.uonbi.ac.ke

Kenya National Bureau of Statistics (2016). Enterprise ICT Survey Report 2016. Retrieved from https://wwwknbs.or.ke/ict-survey-reports-2016/

Macfarlane, M. A. (2014). Sustainable Competitive Advantage for Accountable Care Organizations. *Journal of Healthcare Management, 59*(4), 263-271.

McDowell, H. (2016). Kenya and Australia sign FinTech pact. *Journal of Taxation & Regulation of Financial Institutions, 30*(1), 5-10.

Mintzberg, H. (1999).*The rise and Pall of Strategic Planning.* New York: Free Press.

Muchoki, N. C.N. (2016). *Effects of strategic response on competitive advantage of fast food restaurants in Nairobi.* Retrieved from; http://erepo.usiu.ac.ke

Mugenda. A.G. & Mugenda. M. (2003). *Research methods; Qualitative and quantitative Approaches.* Nairobi: Kenya Acts Press.

Muthaura, F. (2011). S*trategic responses by stockbrokers in Kenya to external environment*. Retrieved from http://erepository.uonbi.ac.ke

Muthoka, D. R. (2013). *Strategies adopted by Sarova Hotels Group Ltd in Kenya to gain competitive advantage*. Retrieved from http://erepository.uonbi.ac.ke/handle/11295/62674

Mutua, B.W. (2013). *Competitive Strategies Adopted By National Bank of Kenya to Cope With Environmental Changes.* Retrieved from http://erepository.uonbi.ac.ke

Mutwa, A. M. (2016). *Strategic responses to investment shocks by selected multinational corporations (MNCs) in Kenya* Retrieved from; http://erepository.uonbi.ac.ke

Nderitu, M. W. (2009). *Strategic responses of the co-operative college of Kenya to the changing external environment.* Retrieved from http://erepository.uonbi.ac.ke/handle/11295/12882

Ngari, A. W. (2011). *Strategy implementation challenges at the Heritage Insurance Company Limited.* Retrieved from http://erepository.uonbi.ac.ke/handle/11295/95810.

Ohanga, C. O. (2004) *study of the strategic responses of commercial banks in Kenya to changes in their environment* Retrieved from; http://erepository.uonbi.ac.ke

Pearce, J. A., Robinson, R. B., & Subramanian, R. (2005). *Strategic management: Formulation, implementation, and control*. Chicago, Illinois: Irwin.

Pogutz, S., Filippetti, L. & Tyteca, D. (2012). *Business organizational response to environmental challenges: innovation.* Retrieved from https://cdn.uclouvain.be

Polasik, M., & Piotrowski, D. (2016). Payment Innovations in Poland: A New Approach of the Banking Sector to Introducing Payment Solutions. *Journal of Economics*, *15*(1), 103-131

Porter, M. E. (1985). *Competitive advantage: creating and sustaining superior performance*. New York: Free Press.

Porter, M.E. (1980). The five competitive forces that shape strategy. *Harvard Business Review*, 57(1), 57- 71.

Shehada, F. & Farmbry, K. (2010). *Strategic Organizational Responses to Environmental Pressures: The Case of Three Palestinian Non-Governmental Organizations*. Retrieved from https://rucore.libraries.rutgers.edu/rutgers-lib/27207/pdf/1/

Thompson, G. & Strickland, M. (2003). *Strategic management: concept & cases.* New York: Richland D. Irwin, Inc.

Von Bertalanffy, L. (1972). The History and Status of General Systems Theory. *Academy Of Management Journal*, *15*(4), 407-426.

Were J. (2007) *a survey of factors influencing strategic responses by state corporations to changes in the environment* Retrieved from; http://erepository.uonbi.ac.ke

Wernerfelt, B. (1984.) A resource-based view of the firm. *Strategic Management Journal*, (*5*), 171–180.

Wiersema, M. F., & Bowen, H. P. (2008). Corporate diversification: the impact of foreign competition, industry globalization, and product diversification. *Strategic Management Journal*, *29*(2), 115-132.

APPENDICES

Appendix I: List of Fintech Companies in Kenya

1. 3G Direct Pay Group
2. Abacus
3. Alternative Circle
4. Bamba Pos
5. BitPesa
6. Bitsoko
7. Branch
8. CA Payments
9. Caytree Partners
10. Cellulant
11. Chura Limited
12. Circle Group Savings and Investment
13. Direct Pay Online
14. Eastpesa
15. Eclectics International Limited
16. ESacco
17. FarmDrive.
18. Funtrench Limited
19. Impala Pay
20. iNuka Pap
21. inVenture
22. Kenya Commercial Bank Group
23. Kocela
24. Kopo Kopo
25. Kwanji
26. Lelapa Fund
27. Loniwa
28. M-Changa

29. M-Pesa
30. Musoni
31. Netguardians Africa
32. Packline Systems
33. PesaPal
34. Ranis Capital
35. Safepay Solutions Limited(LipaSpot)
36. Tala
37. TangazoLetu Limited
38. Umati Capital

Source (https://2017.fintech-africa.com/country/kenya)

Appendix II: Questionnaire

This study seeks to assess the role of response strategies adopted by Fintech companies in Kenya to the external environmental challenges in the payment industry on competitive advantage. Kindly answer all the questions truthfully and as precise as possible. All the information provided will be treated with anonymity and strict confidentiality. Kindly put a tick in the spaces provided depending on the type of question.

SECTION A: Background Information

1. Gender

   Male [ ] Female [ ]

2. State your age bracket.

   19-25 years [ ] 26-35 years [ ]
   36-45 years [ ] 46-65 years [ ]
   Above 65 years [ ]

3. What is your highest level of education?

   Secondary [ ] College diploma [ ]
   Undergraduate degree [ ] Master's Degree [ ]
   PhD [ ]

4. For how long has your organization been operating in Kenya?

   0-2 years [ ] 3-6 years [ ]
   6 -9 years [ ] 9-12 years [ ]
   Above 12 years [ ]

5. In which department do you work?

   Marketing [ ] Finance [ ]

   Product development [ ]

SECTION B: ENVIRONMENTAL CHALLENGES FACED BY FINTECH COMPANIES

6. To what extent does your organization face the following environmental challenges

Environmental Challenges	1	2	3	4	5
Political factors					
Volatile political environment					
Security in the country					
Economic factors					
High inflation rate					
High interest rates					
Fluctuation of foreign exchange rates					
Social factors					
Diverse culture					
Language barrier					
Population segmentation					
Technological factors					
Technological developments in the market					
Rapid change of technology					
Legal factors					
Regulatory factors in the economy					
Policies on entry to the industry					
Regulations governing labor markets					
Business environment factors					
Threat of new entrants in the industry					
Relative bargaining power of firm’s suppliers					
Relative bargaining power of the firm’s customers					
Threat of substitute products and services					
Nature of the relations with labor markets					

Which are other environmental challenges faced by Fintech companies in Kenya?……………………………………………………………………………………...
………………………………………………………………………………………………
………………………………………………………………………………………………

SECTION C: RESPONSE STRATEGIES ADOPTED TO THE EXTERNAL ENVIRONMENTAL CHALLENGES

7. To what extent do you agree with the following statements on response strategies adopted to the external environmental challenges?

Response Strategies	**1**	**2**	**3**	**4**	**5**
Cost leadership					
Our organization maximizes on profitability through cost reduction strategies					
Our organization charges lower prices than our competitors					
Our organization improves on service delivery process to cut on waste and duplication					
Our organization minimizes cost through innovation					
Differentiation					
Our organization offers products/services with unique characteristics					
Our organization creates and maintains products/services with appealing features					
Our organization has a dedicated new product development function					
Our organization is always the first to introduce new products before our competitors					
Our organization always strives to lead in product/service delivery in our sector					
Focus					
Our organization offers tailor made products/services to our clients					
Our organization specializes in a specific geographical market within Kenya					
Our organization constantly targets a specific market					

segment over other segments					
Our organization always strives to remain in its target market					
Merger and Acquisition					
Our organization has used acquisition strategy					
Our firm is planning to use acquisition strategy					
Strategic Alliance					
Organization has formed alliances with other firms in Kenya					
Our organization has formed alliances with other firms outside Kenya					

SECTION D: THE EXTEND TO WHICH THESE RESPONSES AFFECT COMPETITIVE ADVANTAGE

To what extent do you agree with the following statements on competitive advantage in your organization?

Measures of competitive advantage	**1**	**2**	**3**	**4**	**5**
The market share of organization has been increasing					
The firm's market share has improved due to increased marketing activities					
The firm has gained market share through quality improvements.					
The profitability of our firm has been increasing					
The firm's investment and growth has increased					
The firm's sales revenue has improved due to repeat sales.					
Our firm's return on assets has been increasing					
Our firm's return on investment has been increasing					
Our firm's return on equity has been increasing					
Our customer enjoys high customer's loyalty					

Appendix III: Letter of Introduction

<u>TO WHOM IT MAY CONCERN</u>

The bearer of this letter……………………………………………………………

Registration number……………………………………………………………....

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their research proposals on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.