FINANCIAL INNOVATION AND PERFORMANCE OF MICROFINANCE BANKS IN NAIROBI CITY COUNTY KENYA

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DECLARATION

This research project is my original work and has not been submitted for examination in any other learning institution.

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SUPERVISOR

This project has been submitted for examination with my endorsement as the university supervisor.

Signature…… Date……

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DEDICATION

I dedicate this research work to my mum and all individuals who have made this study project successful. Thank you for your time and support. Above all, we thank the Almighty God for giving me the strength and patience that carried me through the whole project writing.

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Special thanks to my mum for her psychological and Physical support, my project supervisor Mr. Gerald Atheru; for his academic guidance, unconditional persistence, support and creating time out of his occupied schedule to attend to my Academic work through-out the study process and to all my friends who aided in the success of this study, May Our God bless you all for the commendable work.

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OPERATIONAL DEFINITION OF TERMS

Customer deposit		Is a liability by bank to the depositors been money deposited in a Bank for safe keeping.
Electronic funds transfer		Paperless method of moving money from one account to another without the physical paper money changing hands.
Financial Innovation		Entails coming up with more effective services, products and procedures needed by people at given time.
Financial performance		Is a method of measuring the results of how well a firm is able to use resources from its primary function of business and make revenue?
Internet banking **Innovation**	- -	Is a system that allows individuals to carry out banking transactions via the internet? the process by which, firms master and implement design, and the production of goods and services that are new to them regardless of whether they are new to their competitors, country or the world
Real time gross settlement(RTGS)	-	is a way of transferring large volume of money in real time basis
Mobile banking	-	Entails use of mobile device like personal digital assistant or mobile phone to carry out banking transactions

ABBREVIATIONS AND ACRONYMS

AMFI	Association of Microfinance Institutions

ATMs	Automated Teller Machines
ANOVA	Analysis of Variance
CBK	Central Bank of Kenya
EFT	Electronic Fund Transfer
IT	Information Technology
MFI's	Microfinance Institutions
ROA	Return on Assets
ROE	Return on Equity
RTGS	Real time gross settlement
SACCO's	Savings and credit Cooperatives
SMEs	Small and Medium Enterprises

ABSTRACT

Financial innovation by microfinance banks can be defined as the process by which microfinance banks come up with new methods of production of goods and services

innovations by microfinance banks can be of different forms which includes such as marketing innovations, product innovations, location innovation, research and development innovation. On the other hand financial innovations include product innovation, institutional innovation and process innovation. These innovations by microfinance have increased efficiency of doing business. It remains largely unclear whether microfinance banks are adequately innovative in their operations given that the number of branches and their clientele base are continuously limited in growth and expansion in Nairobi County.

Performance and growth are related in that a firm cannot grow if it fails to post sound performance. The general objective of the study was to determine financial innovation and performance of microfinance banks in Nairobi County. Specific objectives include examining the effect of institutional innovation, product innovation, and process innovation on performance of microfinance banks in Nairobi County. Financial innovations are significant components to microfinance banks performance. This study looks on financial innovations and performance of microfinance's banks in Nairobi County. The theoretical framework of this research will cover Rodgers' Innovation, induced institutional innovation and demand-supply theory of innovation. Descriptive survey research design was used in this study. The target population comprised of management employees working with microfinance banks and the accessible populations were 100 employees working with MFIs registered with AMF in Nairobi County, Kenya. Samples of 53 respondents were drawn from the study population using stratified random sampling technique. The study population was ten (10) active microfinance banks in Nairobi County as at December, 31, 2017.This study used descriptive research method. A self-administered questionnaire which was semi-structured was used as a data collection tool to be filed by the respondents from the target. Pilot study was first done to establish validity and reliability of data collection instrument. Factor analysis was used to determine the validity of questionnaire. The objective of the study and respondents profile was generated by use of descriptive statistics. Tables and bar charts will be used to present end results of data. .From the findings, the research concluded that there is a supervisory framework that monitors microfinance banks. Some of the innovations observed by MFIs in mobile banking include partnerships, financial trainings, branch networking and opening up new branches. It is was also concluded that innovations can be a source of competitive advantage if a firm understands competitors' actions, customer needs, and technological development and act accordingly to stay at par with rivals. The study recommended that in-order to enhance firm performance the management of microfinance ought to focus on the firm activities aligned towards renewing routines, procedures and processes in an innovative manner in a firm. This will positively improve the performance of microfinance

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Microfinance (MF) is dynamic and spreading in the whole world. Approximately 30 years from when Mohammed Yunus' pioneering in Bangladesh, Microfinance is rapidly changing with new opportunities and growth in the number of MFI's in the world as a result of financial innovations.

In the year 1964, the first Microfinance and community bank in Chicago known as Shore bank was founded with main goal of offering financial services to less privileged in Chicago.

The World Bank in the few past years estimated that 16 million and more people are served by approximately 7000 microfinance institutions which are worldwide. This estimation entails that about 500 million families who have ventured in small businesses benefits from loans offered by these Microfinance. A summit conference held in Washington DC about microcredit was held with strategic goal to have more than 100 million people who are considered poorest by credit from the leading financial institutions and worlds leaders of loans.

In Africa, Microfinance institutions were entirely financed originally by grants, donor's subsidies and low-interest loans (Zeller & Mayer, 2002), and also they ensured that their financial services are accessible to majority of the poor by charging the lowest cost to their financial services. In Africa most of Microfinance depends on donors, government and development agents for support as they make minimum or no profits (Armendariz & Morduch, 2005).

In 1990's as a result of financial reforms in East Africa, The emergency of Microfinance resulted with the aim of efficient and effective financial systems which are sustainable and

contribute to reduced poverty and enhance economic growth to the poor and low-income earners. Since then, there have been significant growth of MFI's in East Africa. some of examples to show the significant growth of MFI's in East Africa are, in Kenya the number of MFI's have increased to 22 MFI's 1.3 million having loaned 1.9 billion in 2012 and Rwanda with 24 MFI's 0.8 million having loaned 0.87 billion as per Market information Exchange, (2012) Also in Kenya, according to AMFI Annual report (2013), the total asset of the sector reached the 298.4bn as of December, 2012.

In Kenya about 20 years ago Microfinance industry started and has speeded across the country. Ayayi and Sene (2010) findings show that high poverty levels make Kenya suitable for Microfinance to loan small finances to creditors. Nevertheless, the industry have only gained reorganization in the last decade and it have been named along two lines informal or formal where it's a requirement by Kenyan law for Formal providers to be registered. Informal providers are managed and controlled subject to group-based rules or self-regulation. Also in other scenarios microfinance in Kenya has been categorized as member-based or client. Cooperatives category is also referred to as Member-based where members provide the finances and other resources and they constitute their members as the main target for the loans. On the other hand client-based institutions, customers are different from the owners. The management of the institution is done with no involvement of its customers. Sometimes customers are required to provide collaterals as a security to loan borrowed. Nevertheless, each member can act as a guarantor to another member as long as all are members of the same group for loan to be issued. Some members usually have deposit savings with MFI's which is used as an additional security. Non-government organization (NGOs) in Kenya gets funds from donors and lend to microfinance clients and members at subsidized interest rates. In other scenarios, government plays a major role of policy setting for MF industry, giving Non-government organization grants or other Microfinance

Institutions and in other cases lending directly to the less privileged and poor. Basically Microfinance entails all intermediation services which include credit, pension, funds transfer savings, insurance and remittances among others in both urban and rural areas to less privileged (Robinson, 2001). Microfinance objective is to develop financial institution and financial systems to reduce poverty by finding cost-effective ways of lending money to poor and less privileged in the society (Morduch, 2000). Traditionally there have been three distinct features which have distinguished Microfinance from other competing financial institutions. These distinguishing characteristics are the loans offered are small, smallness of deposits savings and lack of loan collateral needed as security (Seyed, 2011).

Microfinance in Nairobi County entails giving loans to the poor and small entrepreneur lacking access to banking and related services and regulation of MFI's in Kenya has been developing since the mid-1990s. Registration of Micro Finance was passed in the year 2006 and a Micro Finance Act was formed and was implemented in the 2008. Microfinance in Nairobi serves and is also seen as an alternative to banks and other financial institution, Mostly MFI's in Nairobi serves approximately 5-20% of the population where the main source of finances are from both informal and semi-formal from the poor deposit savings and from moneylenders.

Microfinance also known as "a credit methodology'' by majority of its members and its clients since it efficiently and effectively substitutes collateral to recover and deliver short-term loans given as working capital to the micro borrowers.

Microfinance uses the concepts of group lending or joint liability methods to service its clients which differentiate them from banks, also other criteria used is incentives which gives allowances for increase in loan size over time, alternative collateral through forced savings and repayment schedules which are done regularly (Gine, 2003). Joint liability has contributed to success of Microfinance in Nairobi County as it has helped to reduce two risks

which are involved with lending. Joint liability have helped to overcome adverse selection which is a problem faced by lenders to differentiate between creditworthy borrowers and un-creditworthy borrowers since the joint group formed will be composed of creditworthy members as its assumed that members of a joint liability group know who in their community is a credit risk. The second risk reduced by Joint Liability is moral hazard which involves challenge by the lender which in this case is Microfinance in Nairobi County to monitor borrowers to ensure that the money borrowed is used for the purpose borrowed for and through Joint Liability group this is reduced as people can monitor one another,

, and cost of auditing is reduced as people are honest with one another and in some scenarios of default of loan repayment borrowers can exercise social suctions on defaulters. These method of joint liability favors borrowers who lacks any asset to pledge as its acts as an alternative to collateral and also help lenders who are not formally registered to easily and effectively recover their money.

1.1.1 Innovation of Microfinance Institutions in Nairobi County

Innovation of Microfinance in Nairobi County is widely seen as an important component of competitiveness, embedded in the processes, institution structures, services and products within a firm. Innovations can also be referred to formation of new institutions, new products development, and adoption of new technology and other aspects which are new in financial markets (Schumpeter, 2008)**.** System realignment, Strategic policy making, formation of new management, institutional setting, spreading to new markets are some of the characteristics that shows financial innovation. Innovation encourages faster dissemination and rapid incorporation of information into financial market prices (Mosongo, 2013).Innovations by Microfinance institutions have led to development of new products like mobile banking, new organizational forms, formation of new services like internet banking and modern production process like use of electronic funds transfer (EFT) (Frame &White, 2004).

Financial innovation in comparison to economic factors emerges as a result of cost-benefit analysis with the aim to determine material gains. Innovation main goal is profit maximization or cost minimization or both at any given time.Through elimination or reduction of the costs incurred for intermediate services, understanding the unfulfilled wishes by the investor of certain collaterals which are more preferable in the financial markets. Horne (1984) argued that for financial market to be competitive there must be continuous innovations, he therefore gave some changes in the economy that leads to innovations when created which includes technological changes, interest instability, policy changes, academic research and the level of economic activities.

More specifically, innovation can be referred to as the process, through which organizations and institutions define and implement designs, and the way they provide services and produce goods which may be new to them while as the fact that they may be or not new to their country, competitors or world (Mytelka, 2000).Spielman (2005) Stated that innovation is a process by which new skills or a combination of the current knowledge has been applied which may be new to a local area so as to upgrade on the production of goods and on provision of services. As such, innovation constitutes various forms that include locations, market innovations, product innovations, micro MFIs, and development research. In this context, the study will focus on financial innovations that include process innovation, product innovation, service innovation and institutional innovation.

1.1.2 Performance of Microfinance Banks in Nairobi County.

Microfinance Banks, according to Otero (1999) entails providing economic services to less privileged people and self-employed people. These services relating to Ledger wood (1999) generally include giving credit and savings options but can also include other things such as payment services and insurance. Schreiner approach (2001) define microfinance as way to improve entry of small deposits and loans to less privileged and neglected by other financial

institutions. Consequently, microfinance entails offering financial to less privileged people residing in either Nairobi city or rural settings who cannot easily access the services from other financial institution at any given time.

Microfinance in Nairobi County generates financial income from lending options, penalties, interest fees and commissions. Other incomes entail investment income, income from other financial assets. Microfinance banks operation encounters various expenses which includes bad debt as a result of loan repayment default and operation expenses. A microfinance bank is profitable when its income exceeds total expenses (Lafoucarde et al., 2005).

1.1.3 Innovation and performance of Microfinance in Nairobi County.

Advancement by Microfinance is a determinant of performance and regarding Microfinance in Nairobi County which has contributed to emergency of recent Microfinance Institutions and accept clientele base to MFIs in existence. There is evidence theoretically that small firm's believe it is extremely expensive to embrace finance innovation, a recent research work (Benfratello et al. (2006) shows that depositing stimulates innovation by small businesses. This path could partially shows the growth across the country evidenced on the extraordinary association between development and growth in microfinance institutions. Theoretically, it is believed that financial innovation will have positive effect on the performance of microfinance banks in Nairobi region.

According to Alam et al (2012) performance is a multidimensional composed of four elements that includes, Customer-focused, client satisfaction, and service or product performance; financial and market performance, cash-to-cash cycle time, and earnings per share manager performance, including employee satisfaction; and company effectiveness, including time to market, level of creativity, and production and resource chain flexibility.

1.1.4 Microfinance in Nairobi County.

Microfinance institutions in Nairobi City County are well positioned to provide savings services to low-income clients. In the last two decades, through innovations these organizations have developed effective and efficient means for providing credit (Gudz, 1999). Groupings are being used to reduce deal costs and substitute for collateral. To accommodate all clients with and without education into MFI's, program processes are simplified Gudz (1999) further states that fewer resources, however, have been devoted to expanding similar progressive and effective savings services.

Microfinance Acts of 2006 gives an outline of the organization and regulatory structure of Microfinance banks in Nairobi City County and across Kenya. The Microfinance Act was postulated on twenty second May, 2008, its key main functions include certification and supervision to control its establishment. This Act allows Microfinance banks to mobilize customer deposits from the customers and also to improve entry to credit; this allows Microfinance banks to easily lend money and gain with an interest income which is the primary way to obtain revenue. Microfinance Act of 2006 was revised by deleting the term institution that was submitted to Microfinance bank certified under this Act. Microfinance lender is a firm which is accredited to bring out business within the confines of micro funding. Microfinance banks are checked and regulated by the Central Bank of Kenya (CBK) (McIntosh, De Janvry & Sadoulet, 2005).Microfinance Institutions emerged as a substitute funding source and a powerful instrument for poverty decrease among relatively poor people through the provision of broad range of monetary services such as loan, deposits, payment services, money transfer and insurance services (Robinson, 2003). Among the major objective of these institutions was to help poor people who are financially constrained and weak, with financial services to allow them engage in productive activities or start small businesses (CGAP, 2009). With a primary aim of social mission through outreach to the poor,

Microfinance institutions were formerly financed totally by grants, low-interest loans and donor's subsidies (Zeller & Mayer, 2002), and offered financial services at low priced to ensure that poor people could access the services. This kind of resulted into highly dependence on subsidies and funds from the donors, government authorities and other development providers (Armendariz & Morduch, 2005). The number of Microfinance in Nairobi County has expanded constantly and also a rise in clientele foundation of customer of MFIs in existence on the market.

1.2 Statement of the problem.

According to annual statement on Microfinance in Kenya(2016) statistics shows that commercial banks serve around 22.6% of entire population, 17.9% served by microfinance institutions. In the past 3 decades, there has been appearance of numerous MFIs to offer services to less privileged population. As a result of offering Financial services to the big poor population there have been transformation of some MFIs to renowned banks. Like Kenya Women Finance Trust (KWFT), Equity Bank, Family Bank and K-Rep Bank (now Sidian Bank), (Mutua, 2006).

Financial innovations importance cannot be underestimated. Financial innovations have eased and improved efficiency of doing business for financial institutions including microfinance institutions and banks (Ongwen, 2015). As a result of financial innovations, there can be greater growth, for instance when technology is adopted in transacting business. Leading financial institutions such as commercial banks are very innovative in their products, institutionalization, and processes which have resulted in performance growth. On the other hand this has not been the case with microfinance banks in Nairobi County.

It remains unclear whether Microfinance banks in Nairobi County are adequately innovative in running their daily operation given that they are encountered by the challenge of limited

growth and expansion. This is evidenced by the fact that only 11 Microfinance banks are legally registered with the Association of Microfinance Institution of Kenya (AMF-Kenya) as compared to a total of 42 commercial banks regulated and registered with the Central Bank of Kenya (CBK).Growth and performance are related in that a firm cannot grow if it fails to post good performance. MFI's have been around for decades and have been serving the poor members of the society (EUI 2010).As a result of advancement of technology in the financial sector, commercial banks started providing microfinance services which have led to stiff competition to Microfinance Banks and this has threatened their very existence. The financial challenges facing microfinance banks have far reaching impact. These institutions employ thousands of Kenyans who are breadwinners in thousands of households across the county. As such, in the event that microfinance banks post poor performance and downsize their staff or close shop altogether, there are many Kenyans who would directly and indirectly be affected. More so, these firms pay taxes to the government through Kenya Revenue Authority and poor performance would translate to reduced tax remittances. The foregoing would definitely affect the revenue collection by the government.

Various scholars in Kenya have researched the themes of financial innovation and Performance but their study focused on commercial banks as opposed to Microfinance banks. It's against the backdrop that this study of financial innovation and performance of Microfinance banks in Nairobi City County will be carried to fill these research gaps.

1.3 Objectives of the Study

The main objective of the study is to determine financial innovation and performance of Microfinance banks in Nairobi County.

1.3.1 Specific objectives

i) To determine process innovation on performance of Microfinance banks in Nairobi County.

ii) To establish product innovation on performance of Microfinance banks in Nairobi County.

iii) To determine institutional innovation on performance of Microfinance banks in Nairobi County.

1.3.2 Research Hypothesis

H01: There is no significant relationship between institutional innovations and performance of microfinance institutions in Nairobi City County.

H02: There is no significant relationship between product innovations and performance of microfinance institutions in Nairobi City County.

H03: There is no significant relationship between process innovations and performance of microfinance institutions in Nairobi City County.

1.4 Significance of the study

This research will be helpful to the management of Microfinance banks in Nairobi County as it brings out the role of finance innovations and performance of Microfinance banks establishments which will lead to maximization of earnings and cost minimization. The research is expected to create more awareness to all parties and staff engaged in the procedure of Microfinance of the recent trends of innovation and how it have influenced on the performance of MFI's.

The study findings on the other hand will aid management on decisions about the selection of the best innovations at various developmental stages of the Microfinance institutions.

Furthermore the research will shed light on the product, process, service and institutional innovative developments and satisfaction of Microfinance institutions in Nairobi County.

Outcomes of the study will be of benefits to research workers and scholars, since it is an area of knowledge and also form a basis for additional research as well as building on the existing body of knowledge and factors out area for further research work.

The results of this study will carry value to the government and financial government bodies as it is anticipated to facilitate understanding the reason behind the rapid increase rate of innovations in the micro finance institutions specifically in Nairobi region.

1.5 Scope of the study

This research will cover 10 Microfinance banks in Nairobi County which are members of Association of Microfinance in Kenya. The unit of analysis will be composed of Microfinance banks in operation from January 2013 to close of business of 31st December, 2017.The financial innovations of this study will be, process innovation, product innovation and institutional innovations. The performance measures to be used include, profitability index, Data collection will be done in the year 2018 and the study will use the primary data.

1.6 Limitation to the study

The main limitation to this study was time and resource constraints and therefore the study focused on financial innovations by microfinance banks in Nairobi County and did not include innovations by other financial players such as insurance, SACCO's, banking institutions and pension funds. Nevertheless this provides areas of further research.

The research faced slow response from participants who were very busy in their daily duties to fill all the questionnaires. This was mitigated by frequent follow up through physical appointments and phone calls.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers theories that belongs to innovation and performance of Microfinance banks, empirical studies and conceptual framework which will be the brief summary of the knowledge difference.

2.2 Theoretical Framework

The study draw on components of Rodgers' Diffusion of Innovation theory induced institutional innovation and demand-supply theory of innovation in the analysis of financial innovation of the microfinance banks in Nairobi Town County.

2.2.1 Rodgers' Diffusion of Innovation Theory

Rogers' Diffusion of Innovation Theory (Rogers, 1995)seek to give justification how new innovations are accepted, this theory suggests that there are five features of an advancement that affect acceptance: suitability, testability, complexity, observability and relative advantage. Complexity is the extent to which an innovation is recognized as difficult to understand and use. Rogers recommended that new innovations may be categorized on a simplicity-complexity range with a condition that the interpretation of the innovation might not exactly be evidently understood by possible adopters. When key users perceive innovations as being simple to use the innovations will be more easily adopted (Greenhalgh et al., 2004). This individual argues that diffusion is the process by which an innovation is conveyed over time among the list of participants in a social system. This individual proposes that four main elements influence the pass on of a new idea: the innovation itself,

communication channels, time, and a social system. This technique depends heavily on human capital. The innovation must be widely adopted in order to self-sustain.

2.2.2 Theory of Induced Institutional Innovation

Induced institutional innovation theory was suggested by Vernon and Hayami (1984). Vernon and Hayami tried to argue that the demand for institutional innovation is as a result of relative changes in resource endowments and by technical change. Institutions are guided by rules of an organization or a society that enhance coordination among people by helping them form expectations in which case each person can reasonably hold in dealing with others. Institutions gives assurance of respecting the actions of others, also they facilitate stability and order to expectations in this uncertain world of economic relations (Olsen, 1982).

Induced institutional innovation model maps the equilibrium general relationships among cultural endowments, resource endowments, institutions and technologies. It is suggested that the four elements are interrelated. The model goes beyond the general conventional equilibrium model in which technologies, resource endowments, and culture institutions, are given. Instead, the relationships among the variables must be treated as recursive (Vernon & Hayami, 1984).Induced institutional innovation theory can be used to explain institutional innovation in financial institutions. For there to be effective and efficient institutional innovations, financial firms must have requisite resources particularly in terms of finances and technical expertise to enable them source the necessary technologies. The organizational culture must also be willing to embrace the innovations.

2.2.3 Demand-Supply Theory of Innovation

The theory of demand-supply of innovation was suggested by Tidd (2006). The theory argues that the source of innovations can be analyzed from either the supply theory or by the demand theory of innovation. The theory of demand state that innovations are created as a response to

the demand of business firms that want to gain competitive advantage in their environment of business. This is referred to as the demand-driven innovations. Demand driven innovation can be influenced by changes in its environment by adjusting its business strategy or by internal needs of the firm in its aim of activities improvement (Blach, 2011). The other approach talks about the role of supply side, the argument is that innovations are firstly determined by providers and then they are tested and implemented in business who are seen as end-users of innovation and this is known as supply-driven innovations. Supply-driven innovation is achieved as a process with three phases which include the creativity phase, innovation phase, and the diffusion phase which is realized by diffusion of the innovative solutions (Stradomski, 2006). The demand-supply theory can be used to explain financial innovations in general and product innovations in particular. As a result of competition firms can demand certain services or products. In the dynamic financial sector, competition is very stiff, and firms main objective is to outdo each other by coming up with unique innovations that can address the issue of demand and supply relative to the market.

2.2.4 Economic Value Added Theory

Stewart (1982) proposed the economic value added theory. The theory is a measure of a firm's performance based on the residual wealth calculated by deducting its cost of capital from its operating profit, adjusted for taxes on a cash basis. It is an alternative model to CAPM used in capital budgeting because it focuses on the ability of a firm to create wealth from the point of view of the economic model and not the accounting model (Abate, Grant & Stewart, 2004). It is an integrated financial system used in decision making and different corporate applications including performance measurement, determination of shareholder value, valuation of equity (Hatfield, 2002). The critics of the theory argue that it is a financial fiction inoperable unless markets are efficient (Chen & Dodd, 2002). However, the theory

can be applied to examine the performance of microfinance institutions given the flexibility and efficiency of the financial markets and financial sector.

2.3 Empirical Framework.

The research concentrated on elements of process innovations, product innovation and institutional innovations in the analysis of financial innovation and performance of Microfinance banks in Nairobi County.

2.3.1. Process innovations and performance of Microfinance banks.

This research reviewed on process innovations which have various elements which include telephone banking (M-banking), internet banking and electronic fund transfers.

2.3.1.1Telephone Banking (M-Banking)

Mobile banking services using mobile phones has been in use in both developing and developed countries for many years, Out of these new modalities have started diffusing to previously unbanked people rapidly (Michael & Mayer, 2011). M-banking services are the main drivers of this rapid development due to its associated less expensive and have a geographical footprint which is defined by effective mobile networks. In contrary, services provided by traditional retail banks were out of reach by many customers including those in urban setup from both geographical and economic perspective (Coetzee, Kamau & Njema, 2003).The main advantages to M-banking users are fast, secure and affordable transactions.

M-banking services which are currently accessible especially among previously unbanked groups has resulted to a transition from informal to formal transaction which has positive impacts on its users and hence reduction of poverty and increased economic development (Coetzee *et al*; 2003) .

2.3.1.2 Internet Banking

According to Mallick (2006), the main objective of Internet banking and services is to make it simple and efficient to clients to access their group accounts or personal statements via a web site and to help them carry out certain transactions on their accounts, given adherence with strict security checks. In early 1990s Wang et al. (2003) observed that internet banking was less-utilized as it was used to market services and product by many companies. Thornton and White (2001) established that majority of financial institutions, as a result of 1983 de-regulation introduction were faced with competitive strain, hence this contributed to recheck their policies to take full use of Internet technology. This was in their customer orientations study and financial distribution channels usage in the financial industry of Australia.

Tan and Toe (2000) also noted that for maintenance and expansion of MFI market share there must be effective and efficient use of the Internet technology will. The coming up of Internet banking technology had made many MFI recheck their IT policies in competitive markets which consequently improved their performance efficiency.

2.3.1.3 Electronic Fund Transfer

Microfinance banks in Nairobi county over the last few years have embraced use of computers which have also widely spread in other sectors after realization that labor intensive process of information handling could be computerized (Mosongo, 2013). Computerization and use of Electronic fund transfer devices have played an important role in reducing costs and improving customer convenience which have led to improved profitability and efficiency in delivery of service by MFI's (Muthui, 2013).

2.3.2 Product innovation and performance of Microfinance banks.

Product innovation plays a vital role in increasing the client outreach for any Microfinance. This has led to efficiency and increase in profitability due to an increase in client base. Product innovation process starts with idea conception for intended new product or service, then its launch and finally followed by frequent feedback cycles from clients. Notwithstanding any new product passes through stages of evaluation at any given stage which entails the idea of introducing new product, background preparations for designing a new product, prototype designing, and pilot testing before it is finally launched (Brand, 2001).It is worth noting that product innovation process is a recurrent and continuous process of refining the terms, conditions, characteristics and quality of the product as per the clients feedback and market dynamics. In conclusion product refinement can be equally termed as ‘|product innovation processes.

It is reviewed that innovation enhances firm performance by strategically placing a firm in the market. As a result innovations lead to competitive advantage and superior performance (Walker, 2004). Walker (2008) on the other hand noted that specific product improvements in a firm enhance firm growth. The aforementioned tallied with Rosli and Sidek (2013) observations that product innovation indeed significantly influences firm performance when they investigated innovation and firm performance in Malaysian enterprises.

2.3.3 Institutional innovation and performance of Microfinance banks.

Kenyan microfinance sector is known to be one of the most vibrant in Sub-Saharan Africa with a diversity of institutional forms and good infrastructure to serve the poor. However, their activities were not regulated until 2006. Due to absence of regulation, this allowed innovations to take place. Institutions were set up easily without any barrier like minimum capital requirements. In this environment, the microfinance industry developed and managed

to attain reasonably high outreach. Microfinance ACT (2006) which becomes effective on 2nd May, 2008and Regulations (2008) are used by the government of Kenya to regulate the operations of MFI that include setting out of the regulatory, legal and supervisory framework for the microfinance industry. Legal status of MFI which has current registration membership of 33 institutions, membership ranges from large to small which include microfinance banks, wholesale MFI's to retail MFI's, development institutions. The founders of microfinance had a shared vision supplying formal financial services to poor people who were shunned by banks because their savings were small, their loan demand was small, and they lacked loan collateral (Zeller and Meyer, 2002).

In Kenya, microfinance institutions were founded and pioneered on the basis of Grameen Bank model in Bangladesh, championed by Professor Mohammed Yunus. Professor Yunus designed an experimental credit program to serve the poor. (Global Envision Newsletter, 2006),The MFI industry has made a major contribution in the eradication of poverty by reaching out to the poor who are not able to access bank loans and yet have potential to operate successful businesses. Due to high demand for microfinance in Kenya, diverse types of services which the poor and low income clients demand, creates the need for building inclusive financial systems that work for the poor. It should be noted that microfinance service delivery is turning out to be more complex due to competitive environment where clients are more and more demanding and educated. Hence need to have effective institutional framework systems.

2.3.4 Performance of Microfinance banks in Nairobi County.

In Kenya Microfinance industry has grown since the year 1980's and has played a key role in improving livelihoods and poverty reduction while leading to development and growth of Kenyan economy. The MFI's industry has become the main mean of alleviating poverty by improving both the economic self-sufficiency and living standards of the majority poor and

also offering way to education, health and equity. There have been growths over the years and over 62 members who serve more than 6.1 millions clients and have an asset base worth more than Ksh.325 billion.

As a result of growth of MFI's industry, AMFI-K came up with the Microfinance Act 2006 enacted in 2013 as a result of amendments, the deposit taking Microfinance Institution were allowed to be called Microfinance Banks. Due to increase number of members and also increase of client's base of various Microfinance in Kenya. AMFI-K is continuously doing capacity building trainings on financial education with supports from other partners like Oiko credit and Usaid organization. In the rural areas AMFI-K is focusing on small farmers by developing product innovations which finance agriculture value chain and this have led to great performance of MFI's in terms of profits margins and increase number of client's base.

2.4 Summary of literature Review

This chapter reviewed the theoretical framework and empirical literature on innovations and performance of Microfinance Institutions both globally and locally. The chapter will also provide interesting insights on effects of innovations on performance of Microfinance Institutions. Empirical literature in this chapter will consider process, product, service and institutional innovations and how they contribute to performance and profitability. This research will show that performance of MFI's heavily depends on the levels of innovations at any given time and innovators are more profitable than non-innovators (Geroski et al., 1993; Leiponen, 2000; Cefis and Cicarelli, 2005).This is as a result of ability by innovators to introduce multiple innovations over time, and hence able to maintain high profits.

AUTHOR	YEAR	TOPIC	FINDINGS	GAP
Rogers'	1995	Rogers' Diffusion of Innovation Theory	Rogers give justification how new innovations are accepted, this theory suggests that there are five features of advancement that affect acceptance: suitability, testability, complexity, observability and relative advantage.	Rogers concentrated on one feature i.e. Complexity and ignored other features which gives area of further research.
Vernon and Hayami	1984	Induced institutional innovation theory	Vernon and Hayami tried to argue that the demand for institutional innovation is as a result of relative changes in resource endowments and by technical change.	A research gap on how resource can be equally distributed to improve efficiency.
Tidd	2006	The theory of demand-supply of innovation	The theory argues that the source of innovations can be analyzed from either the supply theory or by the demand theory of innovation.	The theory concentrated on both supply and demand side ignoring other economical factors
Brand	2001	Product	Product innovation	A gap on product quality
		Innovations and performance of Microfinance Institution.	Process starts with idea conception for new product then its launch and finally feedback cycles from clients.	Improvement and differentiation of product will be conducted.
Michael &	2011	Process	M-banking services are	An area of further

Mayer		innovations and performance of Microfinance Institution.	the main drivers to rapid development of MFI's due to its associated less expensive.	research on how M-banking has resulted from informal to formal transaction will be conducted.

2.5 Conceptual framework

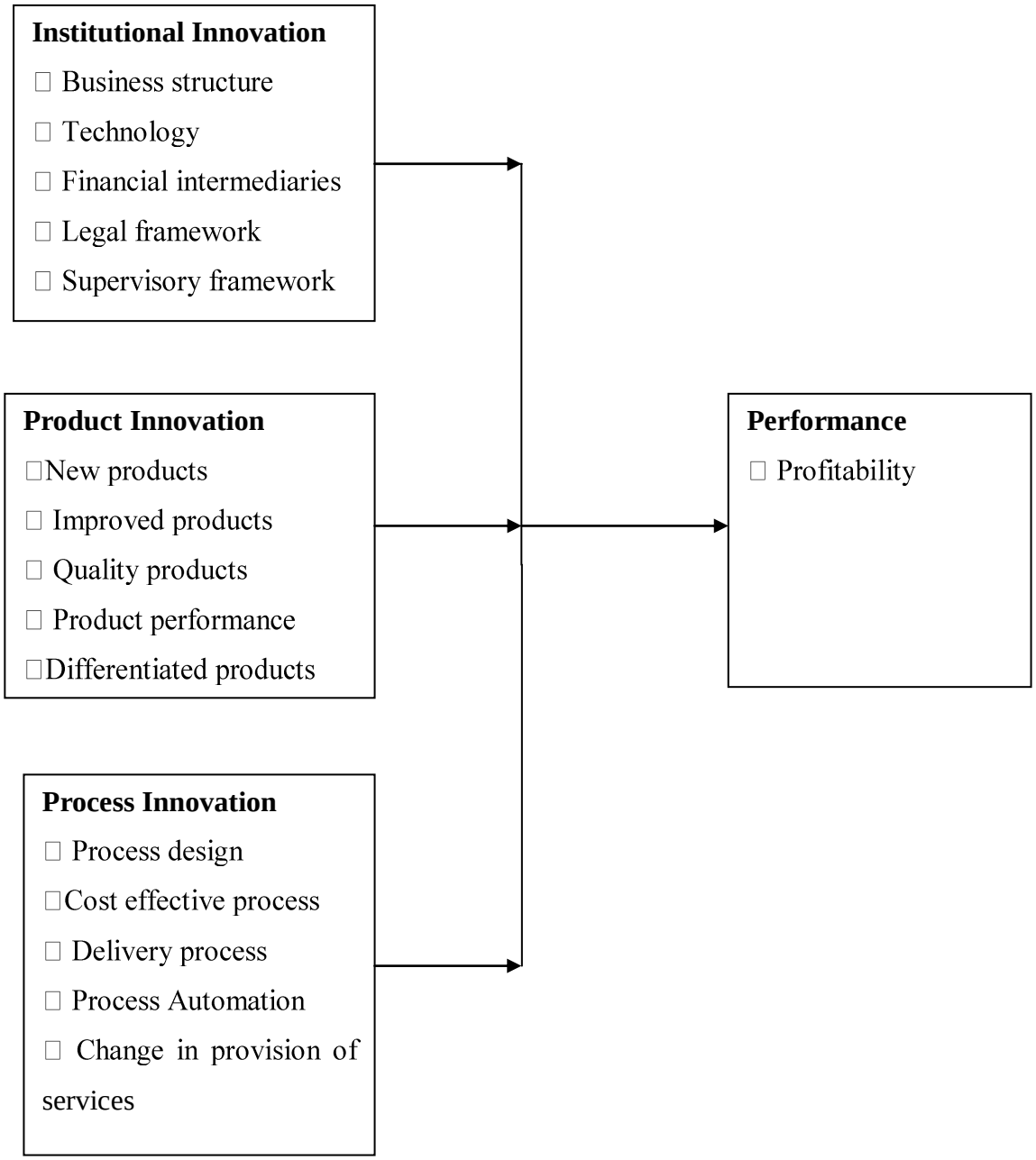
The dependent variable will be performance. This will be the variable of primary interest in trying to study the growth of microfinance banks in Nairobi City County. There will be three independent variables that will explain the dependent variable these include; process innovations, product innovations and institutional innovations.

Product innovation is defined as the introduction of goods or services with improved characteristics aimed at responding to changes in market demand and or to improve their efficiency. These may include money transfers services, new personal unsecured loans; mobile banking and mobile lending. On the other hand, process innovation entails coming up with new business processes which lead to improved efficiency, increased clientele database and market expansion. Process innovations include Real Time Gross Settlement (RTGS) and electronic banking**.**

Institutional innovation is referred as the changes in microfinance bank structures, changes in the legal and supervisory framework and establishment of new types of financial intermediaries. Financial innovations provide easy access to accurate activities like deposits, withdrawals, disbursements, repayments, and money transfer. As such, there are minimal opportunities for errors.

2.5.1 Conceptual model

Figure below shows the conceptual framework which was used in the study. It shows the relationship between innovations that MFIs have used in order to perform, gain competitive advantage and ensure their growth in Nairobi City County.



2.5.2 Institutional Innovation and Performance

Institutional innovations in financial system entail the changes in the business structure, establishment of new types of financial intermediaries and changes in legal and supervisory framework (Frame & Lawrence, 2001). Salim and Sulaiman (2011) hypothesizes that organizational innovation is positively related to company performance. It is noted that indeed organizational innovation led to company performance. It is concluded that innovations can be a source of competitive advantage if a firm understands customer needs, competitors' actions and technological development and act accordingly to stay at par with rivals.

2.5.3 Product Innovation and Performance

Product innovation is vital in a firm as it offers protection to a firm from markets threats and competitors. Indeed, while looking into new product introductions, Bayus, Erickson and Jacobson (2010) established that product innovation in firms have positive and significant impact on organizational performance. The foregoing was affirmed by Alegre, Lapiedra and Chiva (2006) when they investigated product innovation performance in firms. It was noted that product innovations dimensions which were efficacy and efficiency in terms of new products, improved products, and quality products largely and positively influenced firm performance.

2.3.3 Process Innovation and Performance

According to Lopez-Mielgo, Montes-Peon and Vazquez-Ordas (2009) process innovation has a positive effect on total quality management in the organization. The study further adds that process innovation beside enhancing speed and quality result to flexibility and cost efficiency. However, an investigation on German firms indicated that not all process innovations result to cost savings. The study further noted that where process innovation leads to cost savings, it enables a firm to market its products at competitive prices. Wang and Wei (2005) on the other hand established that process innovations result to general increase in customer satisfaction and improve firms' market share.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will focus on collection of data, methods of processing and analysis. Further, procedures and instruments of data collection, study samples and target population will be discussed. Zikmund, Babin, Carr and Griffin (2010) have argued that such methodology entails an explanation of technical procedures in a way that is effective to the audience. On the other hand Dawson (2009) has stated that research methodology is explicitly a philosophy that guides research. Kombo and Tromp (2009) have concurred with these ideas which they assert that research methodology should deal with descriptive methods that are applied when conducting research.

3.2 Research Design

Descriptive survey as a research design will be applied in this research study to evaluate innovation and performance of microfinance institutions in Nairobi County. The basis of selecting this design is grounded on the facts that the research design is able to provide effective techniques of collecting data from large group of respondents through a questionnaire. This research design will ensure that information about the study variables in their own settings have been obtained appropriately. More so, it will allow general conclusions in the study being drawn appropriately.

3.3 Study Population

In this study the population size consisted of management employees working in Microfinance banks in Nairobi City County. The sample size consisted of 100 employees who are working with Microfinance banks in Nairobi County who are members of

Association of Microfinance Institutions in Kenya. There are 13 firms registered with the Association of Microfinance in Nairobi County. Sampling Technique and Sample Size will be determined by a formula developed and implemented by Nassiuma's (2008) which will be used to determine the size and samples as follows.

$$n = \frac{\mathrm{NC}^2}{C^2 + (N-1)\mathrm{e}^2}$$

Where

n represents sample size,

N represents study population

C represents coefficient of variation ($21\% \leq C \leq 30\%$), and

e represents error margin ($2\% \leq e \leq 5\%$).

Calculating the sample size,

$$n = \frac{100(0.21)^2}{0.21^2 + (100-1)0.02^2}$$

n = 52.68

n = 53 respondents

The sample size (n) was 53 respondent employees, this respondent were drawn using random and stratified sampling .This is based on scenario that 10 Microfinance banks in Nairobi City County had different numbers of employees and this method of sampling ensured proportionate participation of all employees in Microfinance banks in Nairobi City County.

3.4 Research instruments

In this study structured questionnaire was self-administered as data collection tool .A questionnaire specifically consist of a series of questions and prompts aimed at gathering data from respondents (Mugenda & Mugenda, 2003). By using questionnaires it will be relatively quick to collect data. Further, potential data was gathered from a larger population sample (Kothari, 2008). In this study the questionnaire consist of structured questions that will be on a Likert scale of 5 points. Secondary data collection sheet will be used to collect secondary data.

3.5 Data Collection Instruments

This study used both primary and secondary data. Secondary data will be obtained from the annual financial reports of each selected microfinance which was provided by the Association of Microfinance Institution for the period 2012-2017.The primary data was collected by use of self-administered questionnaires which were structured or semi-structured.

3.6 Validity Test

Validity refers to the extent to which the difference found by a measuring instrument shows the difference found from the actual tested according to Kothari (2003) .Validity also refers to truthfulness of the research in regards to reality (Neum 2006; Mugenda & Mugenda (2003) contends that validity estimates how truly the data represents the study of a given variable or construct .Kombo and Trompo (2009) and Kothari (2004) defined a pilot test as a rehearsal and replica of the Main survey. Before the main study, pilot study was done so as to determine validity. This pilot was done in Nairobi City where some employees of Microfinance banks were randomly selected to participate in the pilot study.

3.7 Reliability test

Reliability can be defined as the consistency of a research measuring instrument according to (Kothari 2003) reliability is an important test of sound Measurements .He further argue for a measuring instrument to be reliable it must provide consistent results.. The reliability was measured so as to find the existence to which the measuring items gave similar results over a number of repeated trials. A test – retest method was used to estimate the degree to which the same results can be obtained with a repeated measure of accuracy of the same concept in order to determine the reliability of the instrument.

3.8 Data collection procedure

The researcher seek an authority to carry out the research from the university before carrying on research .The questionnaire were personally administered to respondents by the researcher .This ensured that credibility of the data collected was not compromised since the researcher ensured that the respondents do not discuss among themselves the answers to give .By administering the questionnaire personally, the researcher was in a position to establish the acquaintance between him and the respondents .The data was collected by use of self administered questionnaires and interview methods and using interview guide as research instrument .This method facilitated the reliability and validity of the data collected since the researcher was in a position to clear doubts that raised from the study .

The interview was carried out, during which the data was recorded by means of field notes and audiotapes .This facilitated the reliability and validity of the data collected since the tape recording was accurate, thereby checking of conversation wording and compares it with the field notes taken with view to ensuring the reliability of the field notes.

3.9 Data Processing and Analysis

Once the data was gathered it was subjected to data cleaning, processing and analysis. SPSS Version 24 software was used in processing and analyzing the collected data. Analyzing the collected data entailed use of descriptive statistics. Descriptive statistical tools which were used in this study included mode, means, Variance and standard deviations. The outcome of this analysis was then presented in charts, graphs and table formats.

The following regression model guided the study.

$Y= \beta 0 + \beta 1X1+ \beta 2X2+ \beta 3X3+ \varepsilon$

Where:

Y is Performance

$\beta 0$ is Constant

X1 is Institutional Innovation

X2 is Product Innovation

X3 is Process Innovation

ε is Error term

$\beta 1$, $\beta 2$, $\beta 3$ are Regression coefficients of Independent variables.

The significance of the relationship between each of the three independent variables (institutional innovation, product innovation and process innovation) and performance of Microfinance banks was determined using the f-test. The significance level was 0.05. The contribution of the financial innovations towards performance of Microfinance banks under study was determined using the coefficient of determination (r2).

4.0 Ethical Considerations

Ethics entails observing particular norms, values or behaviors. According to Mugenda and Mugenda (2003) the researcher should ensure voluntary participation of respondents and

avoid use of offensive, discriminatory or unacceptable language in formulating questionnaire and interviews. Bryman, A & Bell, E (2007) argued that privacy is very important and researcher should avoid misleading information and also ensure primary data is unbiased. The study ensured confidentiality of information and avoided demeaning and ambiguous questions which could compromise the research.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND INTERPRETATIONS

4.1 Introduction

This chapter presents the findings and interpretations of the results based on the objective of the study, which was financial innovations and performance of microfinance banks in Nairobi City County, Specifically, The study focused on the following financial innovations which includes institutional innovations, product innovation and process innovation on performance of microfinance banks in Nairobi City County.

4.2 Response Rate

Response rate is referred to the people whom semi-structured questionnaires were completed divided by total number of people in the entire sample (Fowler, 2004). The study thus administered 53 questionnaires for data collection. However, 46 questionnaires were properly answered and returned. All Respondents were assured that information provided would be treated as private and confidential. Babbie (1990) argue that a response rate of 50% is adequate 60% is good and 70% and above very good for analysis. This shows that the 86 percent response rate from this study was very appropriate for data analysis.

4.3 Demographic Information

The information provided on demographic is on the level of education, duration the respondents had been working in the industry and their organization.

4.3.1 Respondents' Highest Level of Education

The table below shows the findings of respondent's highest level of education.

Table4. 1: Respondents' Highest Level of Education

	Frequency	Percentage
Bachelor Degree	22	47%
Diploma Education	14	30%
Post graduate	0	00%
Professional Education	10	23%
	46	100

From the findings of 46 questionnaires which were properly answered and returned, 47% of the respondents indicated that they had attained bachelor degree, 30% indicated that they had attained diploma education, 23% indicated that they had professional education while none of the respondents stated they had attained post graduate education as their highest level of education. This shows that majority of the respondents had attained bachelor degree as their highest level of education.

4.3.2 Duration Worked in the Microfinance Industry

The table below shows the findings of respondent's duration they had been working in with microfinance banks in Nairobi City County. The findings are as presented in Table 4.2.

Table4. 2: Duration Worked in the Microfinance Industry

Years	Frequency	Percentage
Less than 1 Years	14	30%
1-5 Years	16	35%
6-10 Years	11	23%
More than 10 Years	5	12%
	46	100

According to the findings of 46 questionnaires which were properly answered and returned, 30% of the respondents indicated that they had been working with microfinance banks for less than 1 years, 35% stated they had been working with microfinance banks for 1-5 years, 23% stated they had been working with microfinance banks for 6-10 years while 12% stated they had been working with microfinance banks for more than 10 years. This shows that majority of the respondents had been working with microfinance institutions for less than 5 years.

4.3.3 Duration Worked in the Current Organization

The table below shows the findings of respondent's duration they had been working in their current organization. The findings were presented in Table 4.3.

Table 4. 3: Duration Worked in the Current Organization

Years	Frequency	Percentage
Less than 1 Years	10	22%
1-5 Years	21	46%
6-10 Years	11	24%
More than 10 Years	4	8%
	46	100

According to the findings of 46 questionnaires which were properly answered and returned, 46% of the respondents indicated that they had been working in their current institutions for 1-5 years, 24% stated they had been working in their current institutions for 6-10 years, 22% stated they had been working in their current institutions for less than 1 years while 8% stated they had been working in their current institutions for more than 10 years .This shows that majority of the respondents had been working in their current institutions for less than 5

years.

4.3 Descriptive Statistics

The researcher requested respondents to give opinions in regard to institutional innovation, product and process innovation on performance of microfinance banks in Nairobi County.

4.3.1 Institutional Innovation on Performance of Microfinance banks in Nairobi County

The semi-structured questionnaires administered required respondents to indicate their level of agreement on the effect of institutional innovation on the performance of microfinance banks in Nairobi County. The findings were as indicated in Table 4.4.

Table 4.4: Institutional Innovation on Performance of Microfinance banks in Nairobi County

	Strongly Agree	Agree	Indifferent	Strongly Disagree	Disagree	Max	Min	mean	std
Microfinance banks have a clear business structure.	12	19	11	4	0	5	1	3.847	0.432
Microfinance banks have adopted advanced technologies	17	20	6	3	0	5	1	4.109	0.431
Microfinance	26	17	3	0	0	5	1	4.500	0.393

banks have partnered with various financial intermediaries.									
Microfinance banks are guided by a clear legal framework	18	20	5	3	0	5	1	4.217	0.412
There is a supervisory framework that monitors Microfinance banks	20	17	6	3	0	5	1	4.043	0.445

According to the findings of 46 questionnaires which were properly answered and returned, the respondents agreed that Microfinance banks in Nairobi County have a clear business structure with a mean of 3.847. They also indicated with a mean of 3.978 that Microfinance banks have adopted advanced technologies. They further indicated with a mean of 4.500 that Microfinance banks in Nairobi city have partnered with various financial intermediaries. In addition, the respondents indicated with a mean of 4.217 that Microfinance banks are guided

by a clear legal framework. Finally, the respondents indicated with a mean of 4.043 that there is a supervisory framework that monitors Microfinance banks. He further argued that Microfinance banks enjoy economies of scale and more so, using technology enables the institutions to cut down costs and reduce interest rates.

4.3.2 Product Innovation on Performance of Microfinance banks in Nairobi County

The study assessed the views of the respondents concerning product innovation and performance of Microfinance banks in Nairobi County. The pertinent findings are illustrated in **Table 4.5: Product Innovation on Performance of Microfinance Institution**

	Strongly Agree	Agree	indifferent	Disagree	Strongly Disagree	Max	Min	Mean	Std
Microfinance banks develop new products quite regularly	20	17	4	5	0	5	1	4.130	0.374
Microfinance banks offer improved products to their customers	17	15	8	6	0	5	1	3.935	0.387

Microfinance banks offer high quality services.	20	18	3	5	0	5	1	4.152	0.365
The product performance is relatively high compared to other financial institutions.	17	18	4	7	0	5	1	3.978	0.385
The products offered by Microfinance banks are highly differentiated.	19	17	6	4	0	5	1	4.109	0.398

According to the findings of 46 questionnaires which were properly answered and returned, the respondents indicated with a mean of 4.130 that Microfinance banks develop new products quite regularly. The respondents further indicated with a mean of 3.935 that Microfinance banks offer improved products to their customers. Also, they indicated with a mean of 4.152 that Microfinance banks offer high quality services. Further they indicated with a mean of 3.978 that the product performance is relatively high compared to

other financial institutions. The respondents finally indicated with a mean of 4.109 that the products offered by Microfinance banks are highly differentiated.

4.3.3 Process Innovation on Performance of Microfinance banks in Nairobi County

The table below shows the response of the respondents in relation to process innovation on performance of Microfinance banks in Nairobi County are outlined in Table 4.6.

Table 4.6: Process Innovation on Performance of Microfinance banks

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Max	Min	Mean	Std
Microfinance banks have a well articulated process design.	23	15	5	0	0	5	1	4.217	0.387
Microfinance banks have enacted changes in provision of services	23	19	2	0	0	5	1	4.500	0.465
Microfinance banks have adopted a cost effective process of operations.	30	16	0	0	0	5	1	4.652	0.384
The delivery	24	22	0	0	0	5	1	4.521	0.378

process in Microfinance banks is up to date.									
Microfinance banks have automated their service delivery.	21	23	2	0	0	5	1	4.413	0.432

According to the findings of 46 questionnaires which were properly answered and returned**,** the respondents indicated with a mean of 4.217 that Microfinance banks in Nairobi City have a well-articulated process design. They also indicated with a mean of 4.500 that Microfinance banks in Nairobi city have enacted changes in provision of services. They further indicated with a mean of 4.652 that Microfinance banks in Nairobi County have adopted a cost effective process of operations. In addition, the respondents indicated with a mean of 4.521that the delivery process in Microfinance banks in Nairobi County is up to date. Finally, the respondents indicated with a mean of 4.413 that Microfinance banks in Nairobi County have automated their service delivery. The study agree with Mabrouk and Mamoghli (2010) who states that if process innovation is continued and new technologies are introduced then innovative Microfinance banks in Nairobi county continue to earn high profits.

4.3.4 Performance

Lastly, the respondents were asked to indicate their level of agreement or disagreement regarding performance of microfinance banks in Nairobi County. Table 4.7 illustrates the findings.

Table 4.7: Performance

	Strongly Agree	Agree	indifferent	Disagree	Strongly Disagree	Max	Min	Mean	Std
Microfinance banks in Nairobi County enjoy high profits.	22	16	6	2	0	5	1	4.261	0.345
Microfinance banks have recorded increased return on assets over the past financial year.	23	14	6	3	0	5	1	4.239	0.435
Microfinance banks have advanced more cumulative	20	24	2	0	0	5	1	4.391	0.356
Loans over the last year compared to previous									

years.									
Microfinance banks have continued to record decreasing nonperformin g loans.	17	20	7	2	0	5	1	4.130	0.357
Microfinance banks enjoy high return on investment.	23	20	3	0	0	5	1	4.434	0.384

According to the findings of 46 questionnaires which were properly answered and returned, the respondents indicated with a mean of 4.261 that Microfinance banks in Nairobi County enjoys high profits. They also indicated with a mean of 4.239 that Microfinance banks in Nairobi County have recorded increased return on assets over the past financial year. They further indicated with a mean of 4.391 that Microfinance banks have advanced more cumulative loans over the last year compared to previous years. In addition, the respondents indicated with a mean of 4.130 that Microfinance banks in Nairobi have continued to record decreasing non-performing loans. The findings also revealed that Microfinance banks enjoy high return on investment with a mean 4.434.

4.4 Inferential Findings

The study used correlation analysis to establish the relationship between product innovation, institutional innovation, process innovation and performance.

4.4.1 Effect of Institutional Innovation on Performance

Correlation analysis was used to show the relationship between institutional innovation and performance of microfinance banks in Nairobi county .Table 4.8 shows the results of correlation analysis.

Table 4.8: Institutional Innovation on Performance

		Performance
Institutional Innovation	Pearson correlation	.112**
	Sig. (2-tailed)	.021
	N	46

**. Correlation is significant at the 0.21 level (2-tailed). Based on the findings between institutional innovation and performance of microfinance banks in Nairobi County there is a positive relationship. This is clearly shown by a correlation coefficient of 0.112 and a p-value of 0.021.The p-value is less than 0.05 and therefore the association was significant. According to Lin & Chen, (2007) there is a relationship between innovation and performance. The findings also agree with Rezazadeh (2013) who states that institution innovations enhance sales in the enterprises.

4.4.2 Product Innovation on Performance

The relationship between product innovation and performance of microfinance banks in Nairobi County was determined. The table below 4.9 shows the correlation analysis.

Table 4.9: Product Innovation on Performance

		Performance
Product Innovation	Pearson correlation	.462**
	Sig. (2-tailed)	.001
	N	46

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

According to the findings, there is significant relationship between product innovations on performance of microfinance banks in Nairobi County. This is shown by a correlation coefficient of 0.462 and a p-value of 0.001. The P-value is less than 0.05. The study is in agreement with Jacobson (2010) who established that product innovation in firms have positive and significant impact on organizational performance.

4.4.3 Process Innovation on Performance

The relationship between process innovation and performance of microfinance banks in Nairobi County was determined. The table below 4.10 shows the correlation analysis.

Table 4.10: Process Innovation on Performance

		Performance
Process Innovation	Pearson correlation	.303**
	Sig. (2-tailed)	.007
	N	46

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

The findings show that there is a positive significant association between process innovations on performance of microfinance banks in Nairobi County. This is shown by a correlation coefficient of 0.303 and a p-value of 0.007. The p-value is less than 0.05.The study is in line

with Vazquez-Ordas (2009) who argued that process innovation has a positive effect on total quality management in the organization.

4.4.4 Regression Analysis for Overall Model

The findings evaluated how the financial innovation under study (product innovation institutional innovation, and process innovation) influenced performance of microfinance banks in Nairobi County. Using multiple regression analysis and Analysis of Variance (ANOVA), the combined effect of institutional innovation, product innovation and process innovation on performance of microfinance banks was established.

The R-Squared is the proportion of variance in the dependent variable which can be explained by the independent variables. The R-squared in this study was 0.672, which shows that the three independent variables (institutional innovation, product and process innovation) can explain 67.2% of performance of microfinance banks while other factors explain 32.8 %.

Table 4.11: Model Summary

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
	0.7563	0.67199	0.52761	2.56741

To test whether the model was a good fit for the data the analysis of variance was used and from the findings, the p-value was 0.000 which is less than the conventional 0.05 and hence the model was good in predicting how the three independent variables (institutional innovation, product innovation and process innovation) influence performance of microfinance institutions.

Table 4.12: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.

1	**Regression**	23.7930	4	5.9483	67.1956	0.000
	Residual	14.4290	163	0.0885		
	Total	38.2220	167			

Further, the F-calculated (67.1956) was more than the P (0.05) which shows that the model was fit in predicting the influence of the independent variables on the dependent variable. Table 4.13 shows the overall significant test results for the hypothesized research model.

Table 4.13: Regression Coefficients

	Un-standardized Coefficients B	**Std. Error**	**Standardized Coefficients Beta**	**t**	**Sig.**
(Constant)	6.797	2.024		3.358	0.000
Institutional innovation	0.454	0.091	0.345	4.989	0.000
Product innovation	0.213	0.085	0.198	2.506	0.021
Process innovation	0.385	0.120	0.235	3.208	0.000

The regression model below shows the interpretations of the findings.

$Y= \beta 0 + \beta 1X1+ \beta 2X2+ \beta 3X3 + Ɛ$

Therefore,

$Y= 6.767+ 0.454X1+ 0.213X2+ 0.385X3$

According to the findings, there is a positive significant relationship between institutional innovation and performance of microfinance banks in Nairobi County as shown by a regression coefficient of 0.454. The p-value (0.000) was less than the significance level (0.05), hence the relationship was significant. The results also indicate that there is a positive relationship between product innovation and performance of microfinance banks in Nairobi City County as shown by a regression coefficient of 0.213. The relationship was found to be significant as the p-value (0.021) was less than the significance level (0.05). Lastly, the results show that there is a positive significant relationship between process innovation and performance of microfinance banks in Nairobi City County as shown by a regression

coefficient of 0.385. This relationship was significant as the p-value (0.000) was less that of the significance level (0.05).

Out of the three factors investigated, Institutional innovation and Process innovation were the most important since to generate one unit of performance, 0.454 units of institutional innovation and 0.385 units of process innovation must be increased. Therefore Micro finance banks in Nairobi County firms ought to focus more on institutional innovation and process innovation.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of major findings of the actual study on financial innovation and performance of micro finance banks in Nairobi County; it also provides conclusions and gives implications emerging from these findings. Finally, it provides recommendations and suggestions for further study.

5.2 Summary of Major Findings

The findings of the study financial innovation and performance of Micro finance banks in Nairobi County are presented in summarized sections. The summary is composed of the descriptive findings.

5.2.1 Institutional Innovation on performance

Microfinance banks in Nairobi County have a clear business structure; Microfinance banks in Nairobi County have also adopted advanced technologies and also guided by a clear legal framework. The research further established that institutional and organizational innovation significantly and positively influences Micro finance performance. It can therefore be suggested that performance of Microfinance banks in Nairobi County can be driven by institutional innovativeness.

5.2.2 Product Innovation on Performance

The study on product innovation and performance of Microfinance banks in Nairobi County indicated that Microfinance banks in Nairobi County develop new products quite regularly. Microfinance banks in Nairobi County also offer improved products to their customers and also offer high quality services

5.2.3 Process Innovation on Performance.

Regarding on process innovation and performance of Microfinance banks in Nairobi County the study revealed that Microfinance banks have a well-articulated process design, In addition Microfinance banks also have enacted changes in provision of services, Microfinance banks also have adopted a cost effective process of operations. Process innovations result to general increase in customer satisfaction and improve firms' market share. The study also revealed that profits may reduce as a result of adoption of process innovations by competitors.

5.3 Conclusions

From the study findings it can be concluded that there is a supervisory framework that monitors Microfinance banks. Some of the innovations observed by Microfinance banks in mobile banking include branch networking, financial trainings, partnerships and opening up new branches. It can also be concluded that financial innovations can be a source of competitive advantage if a firm understands competitors' actions, customer needs and technological development and act accordingly to stay before their competitors.

In regards to the second objective, it can be concluded that product performance is relatively high compared to other financial institutions. Microfinance banks in Nairobi offered products which are highly differentiated. Product innovations dimensions in terms of improved products, new products and quality products largely and positively influence firm performance. Financial innovation enhances firm performance by strategically placing a firm in the market.

On the last objective, it can be concluded that the delivery process in Microfinance banks in Nairobi is up to date. Microfinance banks in Nairobi have automated their service delivery. Process innovation besides enhancing speed and quality result to flexibility and cost

efficiency. Process innovation enhances speed and quality result to flexibility and cost efficiency

5.4 Recommendations

Based on the findings of the study on financial innovation and performance of Microfinance banks in Nairobi County, the study recommends that in-order to enhance firm performance the management of microfinance banks in Nairobi County ought to focus on the firm activities aligned towards procedures, processes and renewing routines in an innovative manner in a firm. This will positively improve the performance of microfinance banks in Nairobi. The study also recommended that microfinance banks in Nairobi ought to develop unique micro products and other loan and service product in order to meet the rising demands of the poor and the marginalized who cannot afford the current packages offered by other financial institutions. It is also important that in order to enhance profitability microfinance banks in Nairobi should focus more on process innovation, like mobile banking this will have a significant relationship to performance of microfinance banks in Nairobi.

5.5 Suggestion for Further Studies

The researcher argues that for effective conclusive study on financial innovations and performance of Microfinance banks in Nairobi County, a replicate study be done in the entire microfinance sector.

The researcher also suggests that a study on technology and performance of Microfinance banks such a study will help microfinance sector to employ technology that will have positive effects in the profitability of Microfinance banks in Nairobi County.

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APPENDIX I: LIST OF MICROFINANCE BANKS IN KENYA

1. SMEP Microfinance Bank Ltd
2. Uwezo Microfinance Bank Ltd
3. Century Microfinance Bank Ltd
4. Caritas Microfinance Bank Ltd
5. Maisha Microfinance Bank Limited
6. Rafiki Microfinance Bank Ltd
7.Sumac Microfinance Bank Ltd
8. Kenya Women Microfinance Bank Ltd
9. Choice Microfinance Bank Limited
10. Daraja Microfinance Bank Ltd
11. Faulu Microfinance Bank Ltd
12. U&I Microfinance Bank Ltd
13. Remu Microfinance Bank Ltd

Source: CBK, 2015

APPENDIX II: QUESTIONNAIRES

This study is aimed at investigating financial innovation and performance of Microfinance banks in Nairobi County. The purpose of this questionnaire is to collect data for research purposes and it's not aimed at victimizing or compromising the respondent's rights It is in partial fulfillment of the requirements for a degree of Masters of Business Administration (Finance), Kenyatta university .All responses will be treated in strict confidence and will not be used for any other purpose apart from that stated.

Section I: Personal and organization details

1. Age: what is your age? Tick where your age falls in years

Age	25-30	30-35	35-40	40-45	45-50	50-55	55-60
(years)							
Please tick							

2 .Gender: what is your gender? Please tick your gender

Gender	Male	Female
Please tick		

3. Educational Levels: What is your highest level of education please tick any below:

Level of education	degree	A-level	Diploma	Form 4	Form 3	Form 2	Form 1	Below class 8
Please								

tick								

4. Length of service What is your length of service? Please tick your length of service

Length of service	1-5	5-10	10-15	15-20	20-25	25-30	Over 30
Please tick							

What is your department? …….

Which category of staff do you fall in? Please tick

Staff category	Senior management	Middle management	Technical staff	supervisors	Junior category
Please tick					

Section II: Questions on Institutional Innovation and performance of microfinance institutions in Nairobi City County.

Table I: To what extent do you agree or disagree with the following statements regarding the Institutional Innovation on Performance of Microfinance banks in Nairobi County. Please use the key below to tick as appropriate.

1=strongly disagree **2**=Disagree **3**=neither agree nor disagree **4**=Agree **5**=strongly agree

	Strongly Agree	Agree	Indifferent	Strongly Disagree	Disagree	Max	Min	Std
Microfinance								

banks have a clear business structure.								
Microfinance banks have adopted advanced technologies								
Microfinance banks have partnered with various financial intermediaries.								
Microfinance banks are guided by a clear legal framework								
There is a supervisory framework that monitors Microfinance banks								

Do you think institutional innovation affects performance of Microfinance banks in Nairobi City County?

Yes…… No……

If yes

Briefly

elaborate……

……..……

……..

Section III: Questions on Product Innovation and performance of microfinance banks in Nairobi City County.

Table Into what extent do you agree or disagree with the following statements regarding the product Innovation on Performance of Microfinance banks.

Please use the key below to tick as appropriate.

1=strongly disagree **2**=Disagree **3**=neither agree nor disagree **4**=Agree **5**=strongly agree

	Strongly Agree	Agree	Indifferent	Strongly Disagree	Disagree	Max	Min	Std
Microfinance banks develop new products quite regularly.								
Microfinance banks offer								

improved products to their customers.								
Microfinance banks offer								
high quality services								
The product performance is relatively high compared to other financial institutions.								
The products offered by Microfinance banks are highly differentiated.								

Do you think Product innovation affects performance of Microfinance Institutions in Nairobi City County?

Yes…… No……

If yes

Brieflyelaborate……

……..……

……..

Section IV: Questions on Process Innovations and performance of microfinance institutions in Nairobi City County.

Table III: Table II: To what extent do you agree or disagree with the following statements regarding the process Innovation on Performance of Microfinance Institution.

Please use the key below to tick as appropriate.

1=strongly disagree **2**=Disagree **3**=neither agree nor disagree **4**=Agree **5**=strongly agree

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree	Max	Min	Std
Microfinance banks have a well articulated process design.								
Microfinance banks have enacted changes in provision of services								

Microfinance banks have adopted a cost effective process of operations.								
The delivery process in Microfinance banks is up to date.								
Microfinance banks have automated their service delivery.								

Do you think process innovation affects performance of Microfinance banks in Nairobi City County?

Yes…… No……

If yes

Briefly

elaborate……

……..……

……..

Section V: Questions on Performance of Microfinance banks **in Nairobi City County.**

Table V: To what extent do you agree or disagree with the following statements regarding Performance of Microfinance Institution.

Please use the key below to tick as appropriate.

1=strongly disagree **2**=Disagree **3**=neither agree nor disagree **4**=Agree **5**=strongly agree

	Strongly Agree	Agree	Indifferent	Strongly Disagree	Disagree
Microfinance banks enjoy high profits.					
Microfinance banks have recorded increased return on					
assets over the past financial year.					
Microfinance banks have advanced more cumulative loans over the last year compared to previous years					
Microfinance banks have continued to record decreasing					

non-performing loans.					
Microfinance banks enjoy high return on investment.					

Do you think performance of Microfinance Institutions in Nairobi City County is determined by innovations?

Yes…… No……

If yes

briefly

elaborate……

……..……

……..

APPENDIX IV: IMPLEMENTATION PLAN

	ACTIVITY	DURATION			
1.	School Defense		Feb-2018		
2.	Piloting of the questionnaire			Mid–April 2018	
3.	Data Collection				Mid-July 2018
4.	Data Analysis				End-Aug 2018
5.	Report writing and defense and correction				End-Sept 2018

APPENDIX V: BUDGET

	ACTIVITY	COSTS
1	Proposal development	30,000
2	Piloting questionnaire	10,000
3	Data collection	20,000
4	Data analysis	15,000
5	Preparation of report	15,000
6	Contingency/Incidentals	10,000
	TOTAL	100,000