

**RELATIONSHIP BETWEEN MOBILE BANKING AND SAVINGS
OF MICRO AND SMALL ENTERPRISES IN GIKOMBA MARKET
OF NAIROBI CITY COUNTY, KENYA**

BY

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF
MASTER OF BUSINESS ADMINISTRATION (MBA), SCHOOL OF
BUSINESS, UNIVERSITY OF NAIROBI**

NOVEMBER, 2016

DECLARATION

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

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

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ACKNOWLEDGEMENT

I thank the Almighty God for this far that He has brought me. My gratitude goes to my family for their understanding, support and encouragement which made it possible for me to pursue and complete this program. I am greatly indebted to my supervisor, Dr. Josephat Lishenga for his great support and guidance towards the completion of this project. I am thankful to the University, School of Business for the knowledge and skills to undertake and complete the project and my employer for the time resources that enabled me complete this study. I would also like to thank my friends and colleagues for the encouragement throughout the program. Lastly I am particularly indebted to my respondents without whom this study would not have been a success. God bless you all.

DEDICATION

I dedicate this paper to my parents, Mr. & Mrs. Francis Kirite for their steadfast love, guidance and believing in me. To all my siblings who supported and encouraged me. I heartily appreciate your sacrifice to make this happen. God bless you all.

ABSTRACT

Mobile telephony penetration has been quite tremendous around the globe in last decade, with more households in the developing economies having mobile phones than bank accounts. Mobile banking platforms have greatly evolved with the advent of bank-integrated financial services allowing mobile phone users to access the financial services anywhere and at any time. The study was based on Innovation Diffusion Theory (IDT), which emphasize that firms apply the theory to remain competitive. The objective of the study was to establish the relationship between mobile banking and savings of MSEs in Gikomba market. The descriptive design was used to study and analyze the variables while the study population consisted of MSEs in Gikomba market. The study established that mobile banking was a safe place to save; transaction time was fast and quick and mobile banking had the capacity to save without others' knowledge. The study concluded that there was a positive relationship between mobile banking and MSEs' savings. That MSEs were using mobile money for different business purposes including sales transaction, efficiency in purchase of stock, receiving payment, payment for goods and services, money transfer and increasingly using it for savings, which significantly influenced their business growth. The study recommended that Communication Authority of Kenya (CAK), which regulates mobile money services, and the Central Bank of Kenya (CBK), which regulates the banking industry, should formulate clear regulations to ensure smooth running of mobile money services. Such measures will guarantee safety of mobile money services and eliminate risk as a barrier to adoption and usage among MSEs.

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LIST OF ABBREVIATIONS USED

ATM	:	Automated Teller Machine
CBK	:	Central Bank of Kenya
DOI	:	Diffusion of Innovations
GDP	:	Gross Domestic Product
IDT	:	Innovation Diffusion Theory
KCB	:	Kenya Commercial Bank
MSE	:	Micro and Small Enterprises
NCC	:	Nairobi City County
SME	:	Small and Medium Enterprises
TAM	:	Technological Acceptance Model

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Mobile telephony penetration has been quite tremendous around the globe in last decade, with more households in the developing economies having mobile phones than bank accounts. Mobile banking platforms have greatly evolved with the advent of bank-integrated financial services allowing mobile phone users to access the financial services anywhere and at any time. Morawczynski and Pickens (2009) most Micro and Small Enterprises (MSEs) are more focused on cash receipts which require them to queue at the bank for deposits and withdrawals but when they embrace mobile banking, they save this time and use it in more productive activities. Many businesses have been changed by mobile revolution, that provides not only communication but also basic financial access , money transfer and storage (Demombynes and Thegeya, 2012). Mobile banking has improved access to financial services, such as savings, deposits, insurance and remittances.

The study was based on Innovation Diffusion Theory (IDT), which emphasize that firms apply the theory to remain competitive. Ehigie and McAndrew (2005) note that adoption results from the diffusion process. Individuals may be persuaded to implement new innovation, but they have to make a decision as to whether to implement it or not. Similarly, Quinn (2000) note that firms if firms do not want to be outshone by competitors, then they need to continually innovate. The theory has its primary focus in explaining how adopters of new innovation accumulate competitive advantage from the

innovation. Normally, firms that embrace and intensely use a given technology are often principal contenders for early adoption of the next generation of that technology which keep them ahead of their conservative competitors.

MSEs in Kenya form a big part of the enterprises and are an important force that spurs economic growth, innovation and job creation. Gikomba market has witnessed growth in MSEs as they are characterized by low seed capital requirement which enable easy entry and exit of businesses thereby increasing competition in various sectors. Saving is an important ingredient to their growth as this can be ploughed back into the business while improving their credit worth status with financial institutions consequently allowing access to funds for expansion (Lukes and Laguna, 2010). The Kenyan government has recognized their contribution and made notable intervention through the formation of Micro and Small Enterprise Authority in 2012 aimed at promoting the development of competitive and sustainable Micro and Small Enterprises in Kenya.

1.1.1 Mobile Banking

Mobile banking is concerned with the provision of financial services using telecommunication devices in collaboration with mobile service providers. Drexelius and Herzig (2001) on their part see mobile banking as the capacity of a firm to carry out bank transactions via a mobile device. Although mobile banking is free for all, it is credited for offering a possible solution to a huge population that have access to mobile telephony but have been excluded from financial mainstream for varied reasons therefore making them financially included. Tiwari, Buse and Herstatt (2006) further consider mobile banking as

a transaction that transfers ownership of goods and services through the use of mobile networks and an electronic device.

Mobile banking allows new entrants to the financial sector and new relationships to be formed for distribution of services thus holding prospect of accelerating access to financial services on the back of the mobile infrastructure. Mobile banking has the potential to transform the business environment through the use of mobile communications infrastructure. Mobile telecommunication enables airtime merchants to extent their business boundaries beyond the conventional ATM networks of banks. Porteous (2006) show that mobile banking is cheaper than conventional banking because of its competitiveness.

1.1.2 Concept of Savings

Savings can be defined as income that is not consumed in a particular time period and is therefore viewed as postponed consumption (Strydom, 2007) and therefore occurs when people abstain from consumption, that is, when they consume less than their income. The decision mainly depends on disposable income and tastes or preferences for spending now versus waiting. Recent research have found that low-income households have increased their savings as a result of adopting mobile banking (Banerjee and Duflo 2011). Individuals excluded from the formal financial system practice informal savings method such saving under the mattresses, putting it in a hole, buying stocks and other assets which can be disposed when need arises.

The two main categories of savings are household savings and corporate savings. Strydom (2007), opine that household sector saving constitutes that part of current

household income that is not consumed after the payment of direct taxes. These saving can take the form of either discretionary or contractual savings. Corporate saving can be described as a company's net income not paid out in dividends to its shareholders but is instead retained within the firm as retained earnings (Love, 2011:2). Such savings can be put into future use or can be ploughed back into the business for expansion purpose. Studies have identified barriers to saving, for example, Turnham (2010) found that inadequate income, and lack of access to savings programs affected the level of savings as well as instability of income.

1.1.3 Mobile Banking and Savings

Mobile banking growth has presented an opportunity to improve the effectiveness of savings products with mobile network coverage and mobile cash agents increasingly reducing the barrier to serve the unbanked and underserved. Most banks are also connected to mobile service providers to facilitate mobile banking therefore increasing access to savings products. For example, M-shwari service, a service provided by M-pesa and Commercial bank of Africa, has enabled customers access savings accounts while Equity bank is using its mobile service Equitel to reach people.

A bank offered mobile savings has become a prominent mechanism of providing banking services to the underprivileged. This is because banking services, with the use of mobile savings can be accessed using mobile phone agents, which in Kenya outnumber the number of bank branches significantly (Mas and Radcliffe, 2011). Access to digital savings accounts enables account holders to save regularly irrespective of the amounts being saved. It enables savers keep their savings intact and directed towards more

concrete goals, while also having access to funds in case of emergency. In the process, the savers gain financial knowledge while trust is gradually built between them and the financial institutions. Consequently, financial institutions get to reasonably know their financial history and status without necessarily visiting them and before opening the doors to offer credit.

1.1.4 Micro and Small Size Enterprises

The definition used to describe MSE sector in Kenya is based on empowerment size of a business. A micro enterprise is a firm, with less than ten people and their annual turnover does not exceed five hundred thousand shillings while small enterprises employ between ten and fifty people and their annual turnover ranges between five hundred and five million shillings (MSEs Kenya Act, 2012). MSEs in Kenya are credited for their role in the economic growth and changing of lives especially to the rural poor. In Kenya, most of them fall under the Jua Kali sector and form a big part of the enterprises in the Kenyan economy. Their businesses requires considerable sacrifice and sincerity of purpose and are mainly owner run or managed. According to ILO (2006), MSES contribute significantly to occupation freedom of choice and give a vast number of people the opportunity to receive vital incomes and provide high numbers of persons with jobs.

However Mas and Radcliffe (2011). Observe that SMEs face finance and operational challenges that emanate from a lack of education and poor entrepreneurial skills. They are also unable to exploit the increased market opportunities brought about by technology due to constraints such as, low productivity, incapacity to face competition from imports or in export markets, inability to adapt to new technologies and or lack of finance as well

as highly skilled personnel. This hampers their growth and coupled with potential clients perceiving these classes of business as lacking the technical knowhow to offer quality goods and services, their capacity to effectively serve the customers is hampered (Longenecker, *et al.*, 2006). Technology has also enabled financial institutions reach the micro and small businesses through mobile banking, for example M-shwari, and KCB-Mpesa which are lending limited amounts while encouraging savings.

1.2 Research Problem

Many lives, especially in the developing world, have benefited from mobile revolution, which transformed communication and also become a tool of financial access (Demombynes and Thegeya, 2012). The growth of mobile telephony is changing phones to mobile banks and in the process affording many people to a an affordable and cost effective tool to accessing financial services.. Indeed the world bank report 2012 notes that one way of eliminating poverty, especially in African countries, rest in the development of an easily accessible financial service and the use of mobile phones is one such tool. While bank accounts penetration is still relatively low in these countries, mobile phone usage is on the rise. The use of mobile phones to transact has also benefited the MSEs since the level of transactions is expected to increase due to improved accessibility of their savings.

MSEs are a fundamental part of the economic fabric. In Kenya, there are over 35,000 formal MSEs with much more informal businesses contributing to more than 40 per cent of the job opportunities (Kenya Economic Report, 2013). According to the World Bank report, many small and medium enterprises in Kenya have been unable to access

financing from existing institutions in the financial sector. As the Kenyan economy is poised to embark on a period of relatively high growth, the financial sector's role to channel credit affordably and efficiently to SMEs will become ever more central for inclusive and sustained economic development. After rebasing the GDP calculations and reaching middle-income status in 2014, the Kenyan economy is expected to grow by 6–7 per cent in 2015–17 (World Bank, 2015).

Earlier studies have focused on mobile banking and financial inclusion as well as adoption, challenges and economic growth. A few studies have been undertaken on mobile banking and savings which include: Mbiti and Weil (2011), who studied the impact of M-Pesa in Kenya and found that there has been an overwhelming M-Pesa accounts usage in Kenya and has become a popular mode of transferring money though is characterized by a low storage of value. Qualitative work by Morawczynski (2009) and based on ethnographic study in Kibera found that rural mobile money transfer recipients have increased due to remittances and consequently an increase in household's savings. Nandhi (2012) carried researched on effects of mobile banking household saving in low income users in India and the findings were that small savers and users depended on risky informal savings practices. Ng'ang'a (2013) researched on the mobile banking and its effects on saving culture in Molo town and found that mobile banking has a positive effect on the saving culture. There has been limited scholarly studies on mobile banking and savings and I did not come across one that studied the MSEs. My study therefore seeks to answer the questions; does mobile banking affect savings of MSEs in Gikomba market?

1.3 Research Objective

To study the effects of mobile banking on savings of MSEs in Gikomba Market

1.4 Value of the Study

MSEs are one of the important drivers of the Kenyan economy that need support. The results of this study would present valuable information to, financial institutions and banks, consultants, mobile network operators, mobile device manufacturers, software and technology providers as feedback. This would be a guide to them to ensure that they make equipment and provide services with special focus on MSEs.

It was anticipated that the findings would give insights to policy makers and regulators like CBK when formulating policies that promote financial inclusion as well as establishing regulations for institutions providing mobile banking services as they focus on MSEs, underserved and ‘unbanked’ population. To the government which is focused on establishing an efficient financial system as one of the drivers of economic growth and as an important contributor to financial inclusion, both geared towards achieving vision 2030 and to the Ministry of Industrialization under which the MSE Authority fall.

To the MSEs and other consumers who would have a better understanding of mobile banking and how they can make better use of it. It would also be valuable to other investors while deciding the mode of banking to use, whether mobile or traditional. This study would add to the existing literature on mobile banking and would help those researchers interested in carrying out further studies on mobile banking. Future scholars may use the results of this study as a source of reference.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews of the mobile banking, adoption and savings by MSEs.

2.2 Theoretical Literature

Several theories are considered to be underpinning the study and include Innovation Diffusion Theory and Technological Acceptance Model.

2.2.1 Innovation Diffusion Theory (IDT)

Bradley and Stewart (2002) advanced the Innovation Diffusion Theory which postulates that firms engage in innovation to gain operational competitive advantage and reduction of costs. The theory also facilitates the understanding of buyer's behavior in explaining why they accept new technology (Vaugh & Schavione, 2010). Hence, the theory by extension means that adoption of mobile banking has the capacity to extend the formal banking to the unbanked population, especially in the rural areas. Previous literature on the role of mobile banking as an ingredient to savings, has come from the developmental/practitioners' arena with little scholarly studies emerging in the last decade (Mas and Morawczynski, 2009).

Rogers (2003) observes that innovations that offers more relative cost advantage simplicity will be adopted by user faster than other emerging mechanism to solving an existing problem.. Rogers's does caution, however, that getting new idea adopted is difficult and therefore reducing the speed of innovation-diffusion process. The theory

suggests that innovations that have a clear, unambiguous advantage over the previous approach will be more easily adopted and implemented (Greenhalgh,*et al*2004). Innovations require investing time, energy and resources, innovations that can be tried before being fully implemented are more readily adopted.

2.2.2 Technological Acceptance Model (TAM)

Technology acceptance model (TAM) explain reasons why a user will accept a range of emerging technologies in the computing world (Davis, 2009). In addition, TAM provide empirical support to explain why users embrace new technology (Agarwal and Prasad, 2009). They further stated there is need for TAM to be integrated with other IT approaches to be able to understand the reason behind user acceptance of technology characteristics. TAM further explains that the importance and ease of a computing technology in explaining difference in users' perception (Davis, 2009) and can therefore be concluded that TAM is based on the user attitude, perceive ease of use and usefulness of the system.

TAM provides an explanation on how one can influence a user attitude, believe and intention to use. According to TAM, a technological system influences a user's intentions and perception of the importance of the system or how easy it is to use. TAM also highlights the effect of external factors on the use of the new technology since it recognizes the perceived usefulness and ease of use.

Figure 2 depicts the original TAM (Davis, 1989).

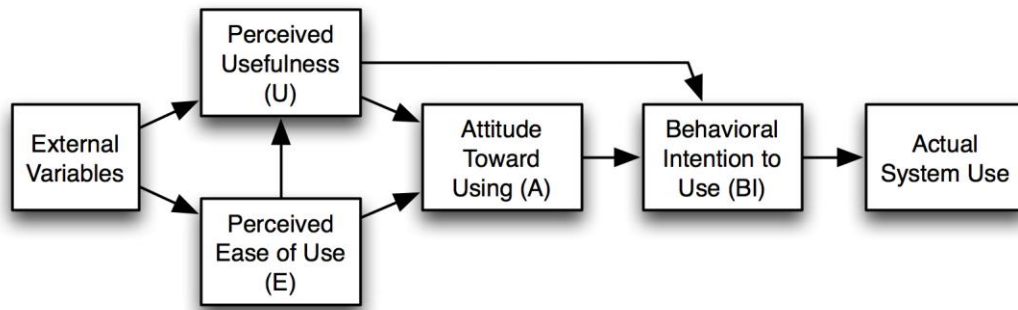


Figure 1. Original Technology Acceptance Model (TAM)

2.3 Mobile Banking and Savings

There are different motives that drive savings. The first known list of saving motives was developed by Keynes (1936). Modigliani and Brumberg conceptualized the life-cycle hypothesis in 1954 which posits that households will smooth out their consumption patterns over their life-cycle is an important theory that govern saving behavior. Saving could be for education, business expansion, leisure, marriage, consumer durables, housing purchases, retirement and funeral expenses. Saving may also be driven by precautionary motives which reflects. Saving maybe for a bequest motive, to give gifts in ones' lifetime or to leave a legacy to heirs. Saving thus helps to allocate consumption over time and to reduce risk. The choice between saving and consumption is an inter-temporal choice where households need to consider the trade-offs between immediate and future consumption (Gough and Sozou, 2005). Individuals and firms will consider

these saving motives, be it life-cycle, precautionary, bequest and profit motives and select the one that best suit them and work towards it.

Cash based transactions, be it households or firms commonly result to the use of informal saving options which carry risks of loss or theft. These include; keeping it under the mattress, hiding it in a hole, accumulation of assets such as jewelry or livestock, keeping with close family members and depositing it with informal groups. There is also the danger of impulse spending when money is kept in cash form. The mobile money electronic accounts offer safe storage of cash, though without the payment of interest, and the cash erodes through inflation. The safety aspect should nevertheless increase the level of savings, net of theft and losses, alone (Jack and Suri, 2011). For the unbanked poor, their “immersion in physical cash creates considerable frictions in their financial lives” (Radcliffe and Voorhies, 2012). Mobile banking enable immediate banking through bank agencies and mobile service providers therefore ensuring safety of the money and give room for planning before such money is withdrawn and spent.

2.4 Determinants of Savings

There are various models used to explain savings of individuals as well as firms which include. These include level of income, demographic variables and economic conditions.

2.4.1 Level of Income

The Keynesian Theory postulates that the current household level of consumption is a function of current disposable income. Therefore as the income increases, the increment is partly consumed during periods of unemployment or sickness. The theory makes the s

assumption that the marginal capacity to consume declines with increase in income, meaning that the ability to save increases as income increases. Duesenberry (1949) contended that is because there income - both current relative to income of others in society consumer feels in competition with. When a household's income falls, the household in order to prevent a large fall in their living standards and also to maintain their living standards at par with those of their peers. The consumer is not independent in this case.

Life Cycle theory was started by Modigliani with Richard Brumberg in 1954. It stated that, people make choices on what they want they want spend at each stage in life and might only be constrained by the resources that they have a given stage. In most of the cases, younger people have been found to have consumption needs that in most cases is lower than their income and therefore have little savings in the process. However, in the middle age, debts accumulated and the individual starts to save for old age (Deaton, 2005). Thus, consumption and saving largely depends on stage in life of the individual or firms at a particular time.

2.4.2 Demographic Variables

Majority of researchers concur that savings of an individual is influenced by demographic factors (Fernandez et al., 2009) such as gender and education, age, and the family size. In accordance to the life-cycle economic approach, people save more as they reach retirement. The gender of a user also influences a users' willingness to save and, for example, since women tend to save more for their old age unlike their male gender because of a higher degree of their aversion (Pan and Statman, 2010). Individuals have

different personalities. They can be risk takers or averse, emotional or complex. Features such as emotion or complexity affect an individual decision.

Duckworth and Weir (2011) opine that the level of an individual openness effect financial decision that one makes during a financial crisis. Higher levels of openness is commonly associated with lower spending of income, the opposite applies to openness. Generally, happy people tend to make more of their old age retirement needs and therefore spend less in order to have enough in the old age, while sad people are found to have more debt and spending more, are more attracted towards spending, perhaps to seek comfort. Individuals make saving decisions whether for themselves or for firms according to their kind of personality and the motive behind it.

2.4.3 Economic Situations

When a country experiences economic growth, the impact is felt through an increase in the level of disposable income and levels of employment. Hence, savings increase with increased income. Andrei and Huidumac-Petrescu (2013), a positive association between growth and savings in the long term and generally. Improved economic growth results in increased savings.

Interest rates prevailing in a country also influences household savings such that a rise in interest rate leads to an increase in savings in comparison with the current consumption because the ratio between present and future goods and services are affected by the expected price (Duckworth and Weir, 2011). *Ceteris paribus*, an increase in the interest rate on savings with commercial banks increases the total savings made at the expense of money balances. Therefore, a change in the interest rates affects the future period of

investment or alternatively, the investment decision of current period will be on the basis of interest rate that has been set earlier.

2.4.4 Technology Growth

According to the study by Bartel, Ichniowski and Shaw (2005), there is a direct relationship between investment in technology in a country and the increase in productivity. Firms need to invest in technology to improve productivity. As law of diminishing returns, there is a higher impact of technological growth in unproductive countries than in productive countries. As productivity in a country or firm increases, there is an increase in wages and profits which could lead to higher savings.

The potential of technological advancement such as M-Pesa to affect savings has been appreciated by various researchers. Morawczynski and Pickens (2009) maintain that there has been a continuous increase in balance of M-pesa users in Kenya meaning that they use the system as an informal bank, to the lower income segment though they don't earn an interest on the savings. On his part, Vaughn (2007) notes that some individuals consider M-Pesa as a better source of savings due to safety considerations, especially when travelling across the country.

2.5 Empirical Review

Cudjoe, Anim, and Nyanyofio, (2015) studied factors influencing doption of mobile banking in Ghanian Banking Industries. They sampled 150 customers and used explanatory and a cross-sectional design to analyze data. The study found that the safety

of technological system and financial cost have a higher effect on consumer ability to embrace and use mobile banking technology.

Ramdhony and Munien(2013) investigated mobile banking adoption and usage in Mauritius aimed at establishing awareness and identify factors that slow down m-banking usage. 169 convenience sampled respondents were used. Applying descriptive design that awareness of local m-banking high and reasonable but security risk and reliability were the main hindrance to m-banking usage.

Adewoye (2013) investigated the Mobile Banking and service delivery in the Nigerian Commercial Banks. The study used 125 questionnaires distributed to all employees. Descriptive research design was applied and the results were that mobile banking improve bank's service delivery as measured by savings of time and transaction time.

Wamuyu (2016) investigated the use of mobile money accounts as a money management tool in Nairobi's Mathare, Kenya. The study used explanatory model and the findings were that a lack of awareness, high transaction costs, low interest rates on mobile money and fixed deposit savings requirements affects negatively the performance of fixed deposit savings accounts usage.

Ndumba and Muturi(2014) sought to investigated the adoption of mobile banking in Kenya Commercial bank where KCB among Limuru customers were used as the target population. This study employed a descriptive research design, 67 customers were sampled and questionnaires were used. It was found that the adoption rate is below target. Customers' perceived risk of loss of money through sending to wrong account and loss of personal information negatively affected the adoption of M-Banking service, while

perceived convenience was found to positively affect adoption of M-banking. Reliability of services also had positive effect. That it was more advantageous to us mobile banking compared to traditional banking

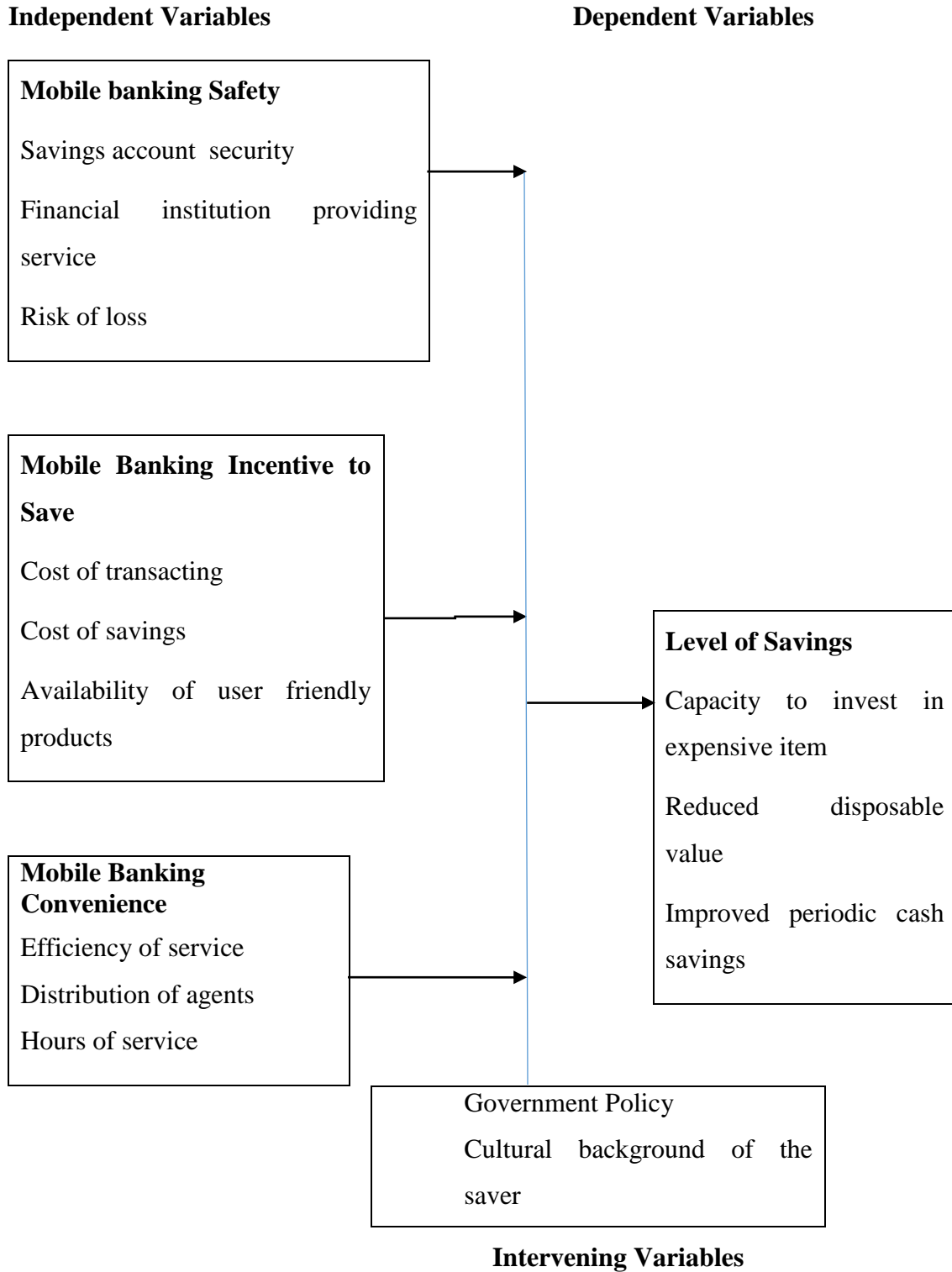
2.6 Summary of Literature and Research Gap

This chapter has explored different theories advanced to explain the effect of mobile banking and savings. A multitude of models have been proposed and reviewed to understand and predict better the use of mobile banking and its contribution to savings. However, their results have been inclusive (Morawczynski and Pickens, 2009). There is limited study in this area as highlighted and a lot more to be discovered once mobile banking technology get more advanced and users get more technologically open and knowledgeable. The propositions highlighted in this study will provide more knowledge to a limited knowledge base on a Mobile banking and savings and highlight areas that the banking industry need to work on in order to attract MSEs with their savings products.

2.7 Conceptual Framework

Conceptual framework is a network, or “a plane,” of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena (Jabareen, 2009:51). This study particularly interrelates mobile banking and savings by micro and small enterprises in Gikomba market, Kenya, as indicated in figure 2.1 below;

Figure 2.1: Conceptual Framework



Source: Researcher (2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides a discussion of the outline of the research methodology that was used in this study. It focused on the research design, data collection methods and comes to a conclusion with the data analysis and data presentation methods that were used in this study.

3.2 Research Design

A descriptive design was used to study and analyze the variables. Sekaran and Bougie (2011) aver that descriptive study helps in understanding the features of group in a given situation. The design has been found appropriate as it allows use of both quantitative and qualitative data and a larger population can be handled.

3.3 Population

This study was confined to MSEs in Gikomba Market which is in Nairobi County, Kenya. The market is characterized by micro, small and medium size businesses, with many operating in the open air. The study population consisted of MSEs in Gikomba market and according to the Nairobi County licensing department (2014), there are 1,332 registered MSEs in Gikomba.

3.3.2 Sample Design

Kothari (2008) describes a sample as a collection of units chosen from the universe to represent it and further point out that a good sample population should be 10% to 30% of the entire population. Therefore the 10% was adequate for analysis in this study. In the study, the researcher used stratified random sampling, where the population was divided into strata based on shared characteristics. Then a sample of 10% was randomly picked from each stratum. This ensured that each strata was adequately represented within the whole sample population. Using the MSEs licensed by the NCC licensing department data, this enabled the researcher to arrive at 133 MSEs to be the sample size.

3.4 Data Collection

Primary data. The choice of primary data was because there are no available data in this study area. Its appropriateness was also in the picking of peoples' attitudes as well as having subjective answers. The data was collected using a questionnaire.

The questionnaire had both open and closed ended questions designed to elicit specific responses for qualitative and quantitative analysis. It adopted a Likert scale format whereby 5 represented a strong positive response and 1 the weak response. It contained three sections or questions. Section one was used to ascertain the demographic information of the respondents. Section two helped identify the various features of mobile banking while the last section linked mobile banking to the level of savings among the MSEs.

Having administered the questionnaires, there was a follow-up to ensure that questionnaires were collected on time and assistance to the respondents having difficulty in completing the questionnaires was offered. Follow-up calls were made to ensure that the questionnaires were duly filled within a reasonable period of time.

3.5 Data Analysis

After collection of the questionnaires from the respondents, the researcher checked them for completeness and only those complete and properly filled were then considered for analysis. This data was compiled, sorted, edited, classified and entered into a computer for analysis using statistical packages for social scientists (SPSS version 22.0).

Correlation analysis was used in this study. The overall mean obtained from data of sections B to E of the questionnaire sought to answer the relationship between mobile banking and savings. The findings were in a form of a table showing the mean and standard deviation of each of the performance measures from the respondents. A mean of 3 and above for each answer represented a more popular performance measure and a standard deviation less than one represented a low variation. To establish the relationship a Pearson correlation was undertaken to establish the relationship existing between different independent variables.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This study was carried out to establish the relationship between mobile banking and savings of micro and small enterprises in Gikomba Market of Nairobi City County, Kenya. Data was collected from the registered MSEs in Gikomba through filling the questionnaires. The findings are presented as follows;

4.2 Response Rate

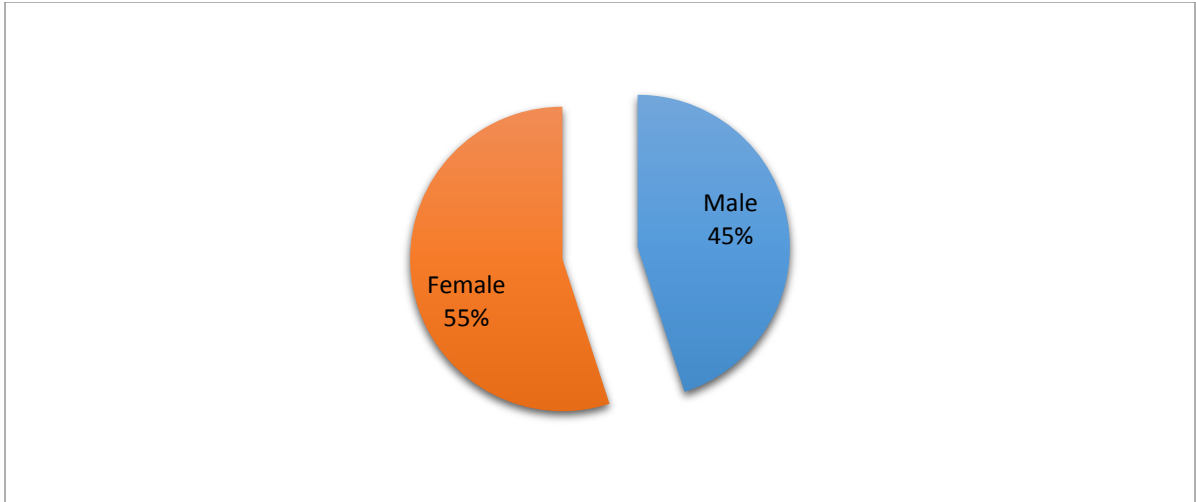
A total of 133 questionnaires were distributed to the respondents. Out of the 133 questionnaires, 86 were returned to the researcher. This represents a response rate of 64.7%. This percentage was considered sufficient for this study. Mugenda and Mugenda (2003) stipulated that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. The high response rate was achieved due to face to face administering of the questionnaires by the researcher.

4.3 Background Information of the respondents

4.3.1 Gender of the respondents

The study sought to establish the respondents' gender distribution. The findings are as stipulated in the figure below

Figure 4.1 Gender of the respondents

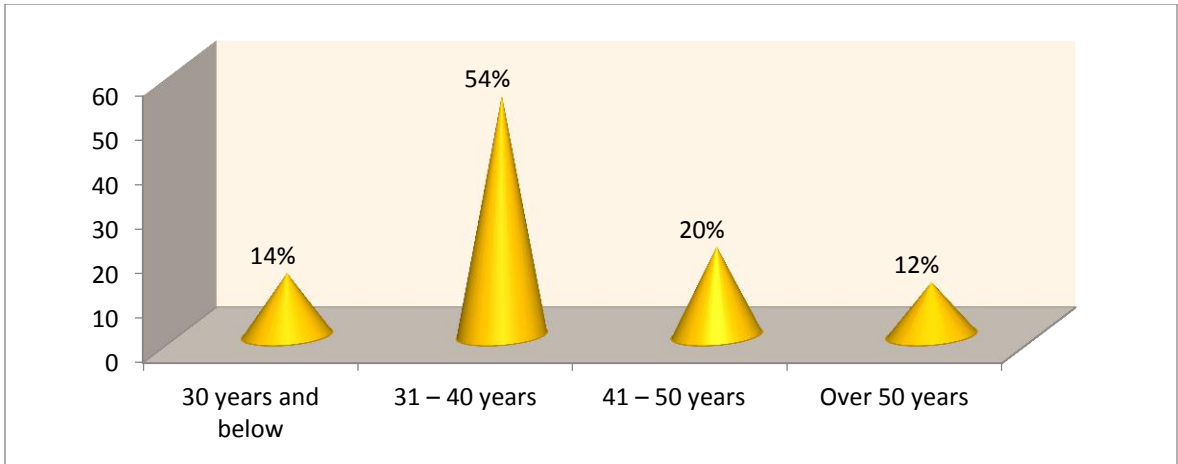


From the findings of the study majority of the respondents (55%) were females while 45% were males. This illustrates that there is gender disparity in the SMEs in Gikomba market as the majority of the entrepreneurs were female.

4.3.2 Age of the SMEs Owner

In order to understand the respondents' age distribution, the respondents were asked to indicate the age category in which they fell in. The figure below indicates an analysis of the respondent's age distribution.

Figure 4.2 Age of the SMEs Owner

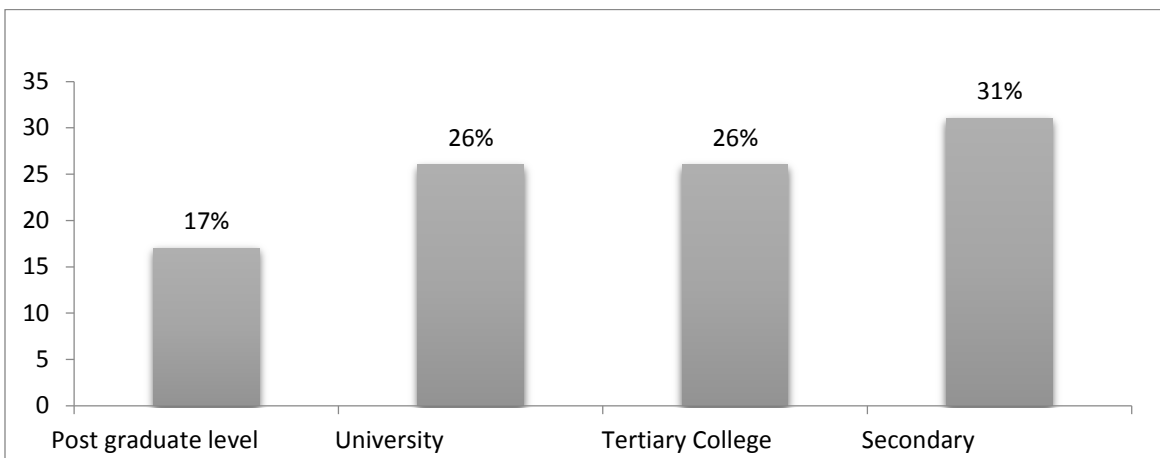


From the findings, majority of the respondents (54%) were aged between 31 – 40 years old, 20% were between 41 and 20 years old and 14% were 30 years old or below while 12% were above 50 years of age. The findings indicate that majority of the SMEs owners in Gikomba market were aged between 31 and 50 years old.

4.3.3 Level of education

The researcher enquired from the respondents about their education level results obtained were tabulated as illustrated in the figure below

Figure 4.3 Highest Level of education of the respondents

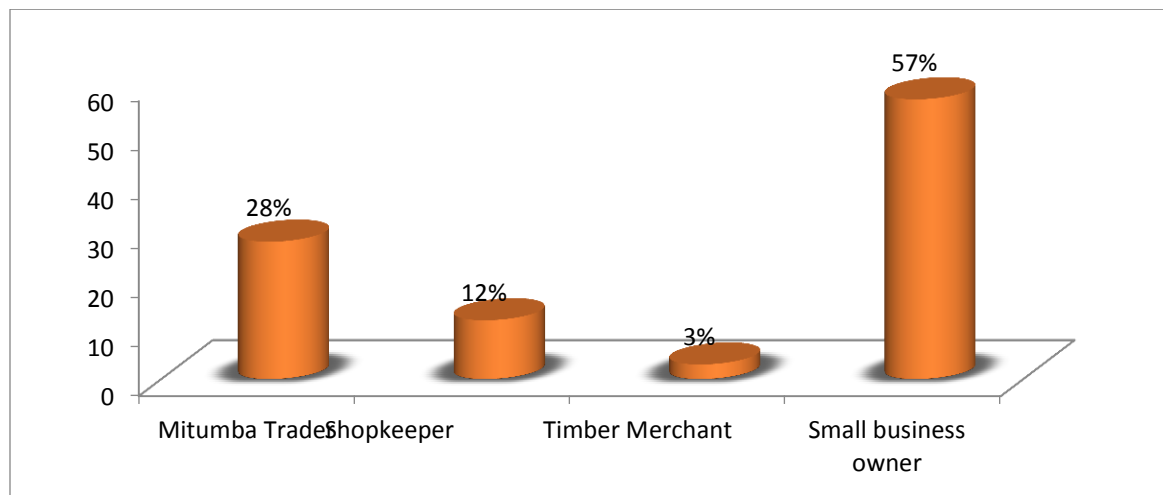


From the results presented it is evident that majority of respondents had secondary school level of education at 31% percent followed by those with college diplomas and university education at 26% respectively while those with post graduate level of education at 17%. Therefore majority of respondents for this study have at least secondary school qualifications.

4.3.4 Occupation of the respondents

The research also sought to establish respondents' occupation. The findings are as Stipulated in the figure below

Figure 4.4 Occupation of the respondents

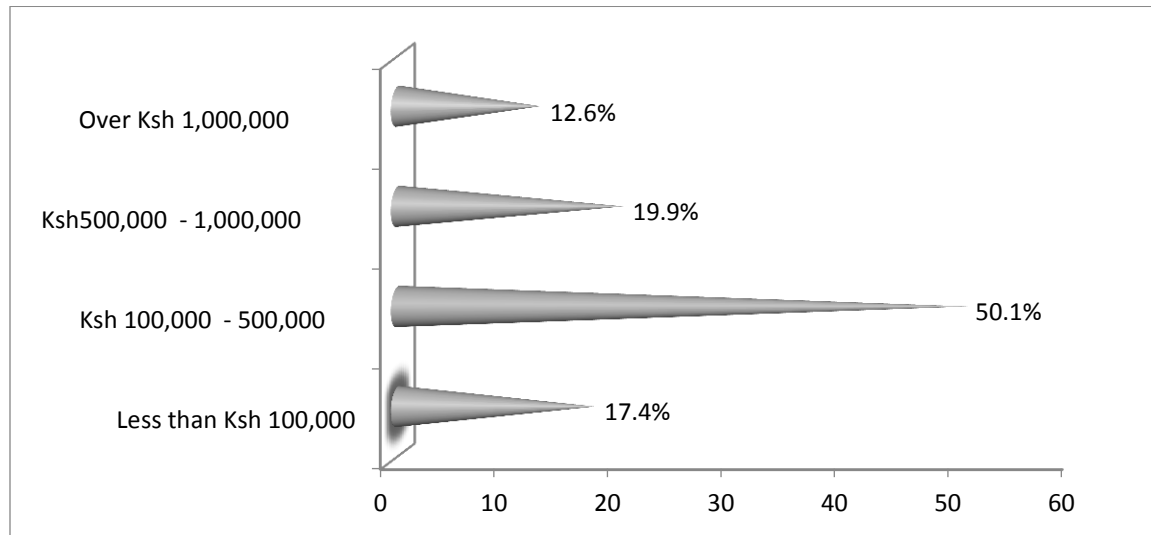


From the figure above, majority of the respondents (57%) were small business owners, 28% were mitumba traders and 12% were shopkeepers while 3% were timber merchants. This implies that majority of the study respondents were small business owners.

4.3.5 Average Monthly Income

The research sought to establish respondents' average monthly income. The findings are as stipulated in the figure below

Figure 4.5 Average Monthly Income



From the results presented it is evident that majority (50.1%) of respondents had an average monthly income of ksh 100,000-ksh 500,000, 19% had an average monthly income of ksh 500,000-ksh 1,000,000 and 17% had an average monthly income of less than Ksh 100, 000 while 12.6% had an average monthly income of over ksh 1,000,000.

4.3.6 Attributes of using Mobile Banking

The study sought to determine the extent to which the respondents agreed with the following attributes of using mobile banking. The responses were rated on a five point Likert scale where: 5= to a very great extent, 4= great extent, 3- Moderate extent, 2= to a low extent and 1 = to a very low extent. The mean and standard deviations were generated from SPSS and are as illustrated in table below.

Table 4.1 Attributes of using Mobile Banking

Attributes of using Mobile Banking	Mean	Std. Dev
It is easy and convenient	3.7	0.48
It is easy to withdraw anytime	3.2	0.65
It is a safe place to save	4.8	0.52
Helps avoid unnecessary spending	3.4	1.03
It has the capacity to save without others' knowledge	4.1	1.23
Transaction time is fast and quick	4.4	0.21

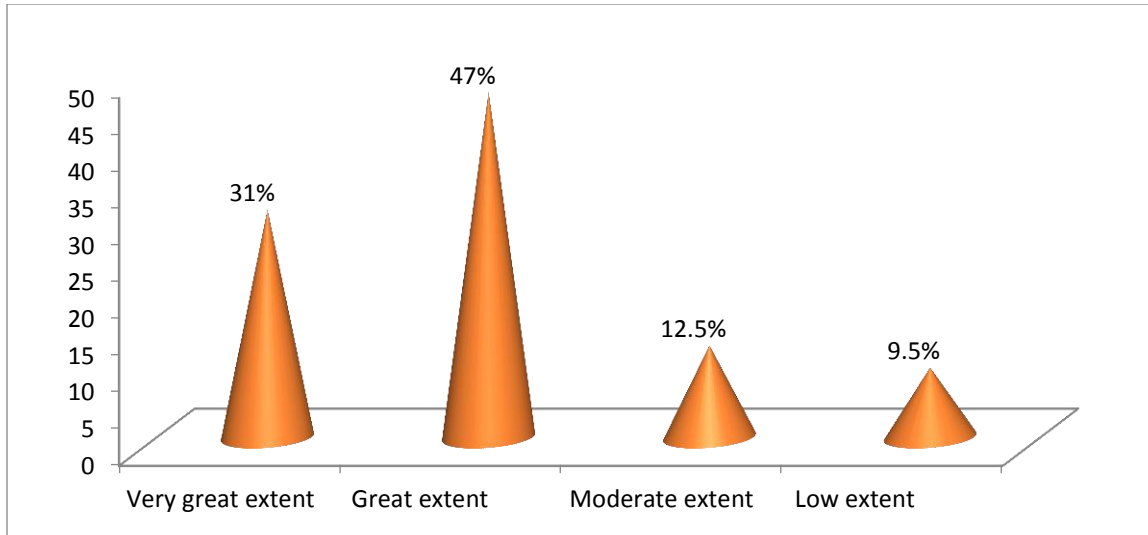
From the study findings in Table 4.1, majority of the respondents agreed to a very great extent that mobile banking was a safe place to save; transaction time was fast and quick and mobile banking had the capacity to save without others' knowledge as indicated by the mean scores of 4.8, 4.4 and 4.21 respectively. On the other hand, most of the respondents moderately agreed that mobile banking was easy and convenient; it helps avoid unnecessary spending and it was easy to withdraw at any time as indicated by the mean scores of 3.7, 3.4 and 3.2 respectively.

4.4 Mobile Banking Safety

4.4.1 Safety and Trust Worthiness of Mobile Banking

The study sought to establish the extent to which the safety and trust worthiness of mobile banking influenced respondent's mobile savings. The findings are as stipulated in the figure below

Figure 4.6 Safety and Trust Worthiness of Mobile Banking



From the findings above, most (47%) of the respondents agreed the safety and trust worthiness of mobile banking influenced respondent’s mobile savings to a great extent, 31% to a very great extent and 12.5% to a moderate extent while 9.5% agreed the safety and trust worthiness of mobile banking influenced respondent’s mobile savings to a little extent.

4.4.2 Statements on Safety and Trust Worthiness of Mobile Banking

The study sought to determine the extent to which the respondents agreed with the following statements on safety and trust worthiness of mobile banking. The findings are presented in Table 4.2.

Table 4.2 Statements on Safety and Trust Worthiness of Mobile Banking

	Mean	Std. Dev
It helps the secrecy of earnings and therefore I have no worry of someone getting to know my bank balance	3.7	0.429

It has helped me to shift from insecure and unsafe ways of savings that I previously used.	2.6	0.139
Mobile banking is trustworthy because me alone can access my account	4.6	0.452
There is no risk of loss from theft or deception	4.8	0.148
Mobile banking is reliable because it is a bank account	4.7	0.540

From the study findings in Table 4.2, majority of the respondents agreed to a very great extent that there was no risk of losing from theft or deception when using mobile banking; mobile banking was reliable because it was a bank account and mobile banking was trustworthy because the customer alone can access their account as indicated by the mean scores of 4.8, 4.7 and 4.6 respectively. On the other hand, most of the respondents moderately agreed that mobile banking helped the secrecy of earnings and therefore customers have no worry of someone getting to know their bank balance as indicated by the mean score of 3.7.

4.5 Mobile Banking Incentive to Save

The study sought to establish the extent to which the features of mobile banking as far as its incentive to save influenced respondent's mobile savings. The findings are as stipulated in the

4.5.2 Statement on Mobile Banking Incentive to Save

The study sought to determine the extent to which the respondents agreed with the following statements on Mobile Banking Incentive to Save. The findings is in Table 4.3.

Table 4.3 Statement on Mobile Banking Incentive to Save

	Mean	Std. dev
Avoids unnecessary and trivial expenditures	4.65	0.482
Enabling save of time, energy and cost of transacting in a brick and mortar bank branch	4.44	0.524
There is low withdrawal fees on my mobile banking platform	4.53	0.621
It helps me plan my spending	4.66	0.542
There is upper limit on transactions	4.11	0.057

From the study findings in Table 4.1, all of the respondents agreed to a very great extent that mobile banking helped them plan their spending; helped them in avoiding unnecessary and trivial expenditures; there was low withdrawal fees on the mobile banking platform; mobile banking enabled in saving time, energy and cost of transacting in a brick and mortar bank branch and there was an upper limit on transactions as indicated by the mean scores of 4.66, 4.65, 4.53, 4.44 and 4.11 respectively.

4.6 Mobile Banking Convenience

4.6.1 Features of mobile banking as far as its convenience in savings

The study sought to establish the extent to which the features of mobile banking as far as convenience in savings influenced respondent's mobile savings. The findings are as stipulated in the figure below

4.6.2 Statement on Mobile Banking Convenience

The study sought to determine the extent to which the respondents agreed with the following statements on Mobile Banking Convenience. The results are in Table 4.4.

Table 4.4 Statement on Mobile Banking Convenience

	Mean	Std dev.
It takes a minimum time to transact under mobile banking	3.67	1.131
The agent gives money even if the bank counter is closed	4.56	0.913
There is no minimum balance since I can deposit even smaller amounts	3.48	0.948
It's a good substitute to bank account	4.84	0.746
There is no queues, paper work or time waste	3.63	0.808
There is prompt updates through messages	4.62	1.133
There is convenient timings as it is a 24 hour service	3.24	0.124

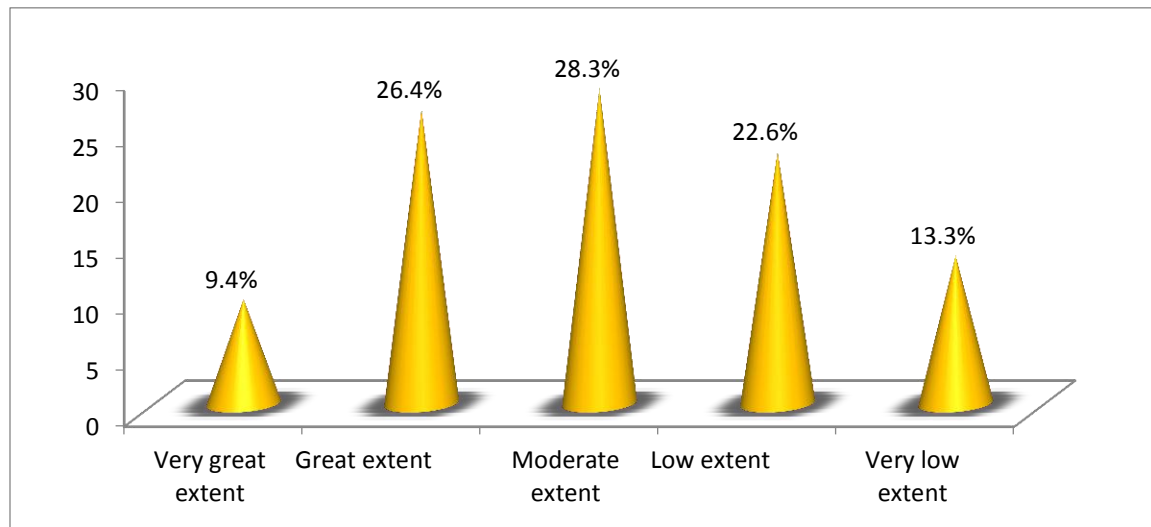
From the study findings in Table 4.1, majority of the respondents agreed to a very great extent that mobile banking was a good substitute to bank account; there were prompt updates through messages in mobile banking and the agent gives money even if the bank counter is closed as indicated by the mean scores of 4.84, 4.62 and 4.56 respectively. On the other hand, most of the respondents moderately agreed that it takes a minimum time to transact under mobile banking; there are no queues, paper work or time waste; there are no minimum balance since one can deposit even smaller amounts and There is convenient timings as mobile banking was a 24 hour service as indicated by the mean scores of 3.67, 3.63, 3.48 and 3.24 respectively.

4.7 Level of Savings

4.7.1 Features of mobile banking as far as its levels of savings

The study sought to establish the extent to which the features of mobile banking as far as its levels of savings influenced respondent's mobile savings. The findings are as stipulated in the **Figure 4.7**.

Figure 4.7 Features of mobile banking as far as its levels of savings



From the findings above, most (28.3%) of the respondents agreed that the features of mobile banking as far as its levels of savings influenced respondent's mobile savings to a moderate extent, 26.4% to a great extent and 22.6% to a low extent while 13.3% agreed that the features of mobile banking as far as its levels of savings influenced respondent's mobile savings to a very low extent.

4.7.2 Statements on level of savings

The study sought to determine the extent to which the respondents agreed with the following statements on Mobile Banking level of savings. The results are in Table 4.5.

Table 4.5 Statements on level of savings

Ways of using M-pesa Service	Mean	Std. Dev
There has been less disposable income that I have since I embraced mobile banking despite my business income improvement due to savings	4.47	1.29
I have been able to save and buy a much expensive product as a result of mobile savings	4.32	1.16
When I compare the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing	4.27	1.23
The level of cash donations that I make has decreased since I employed mobile banking	4.23	1.12
The level of wasteful spending has reduced since I adopted mobile banking	4.11	1.22

From the study findings in Table 4.1, all the respondents agreed to a very great extent that there has been less disposable income that the respondents had since they embraced mobile banking despite their business income improvement due to savings; respondents had been able to save and buy a much expensive product as a result of mobile savings; compare the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing and the level of cash donations that they had make has decreased since they employed mobile banking while the level of wasteful spending had reduced since they adopted mobile banking as indicated by the mean scores of 4.47, 4.23, 4.27, 4.23 and 4.11 respectively.

4.8 Inferential Statistics

Pearson's product moment correlation analysis was used to assess the relationship between the variables.

4.8.1 Correlation Analysis

The data presented before on Mobile Banking Safety, Mobile Banking Incentive to save and Mobile Banking Convenience were computed into single variables per factor by obtaining the averages of each factor. Pearson's correlations analysis was then conducted at 95% confidence interval and 5% confidence level 2-tailed. The table below indicates the correlation matrix between the factors (Mobile Banking Safety, Mobile Banking Incentive to save and Mobile Banking Convenience) and savings among SMEs. According to the table, there is a positive relationship between savings among SMEs and Mobile Banking Safety, Mobile Banking Incentive to save and Mobile Banking Convenience of magnitude 0.894, 0.493, and 0.661 respectively. The positive relationship indicates that there is a correlation between the factors and the savings among SMEs with Mobile Banking Safety having the highest value and Mobile Banking Convenience having the lowest correlation value.

This notwithstanding, all the factors had a significant p-value ($p < 0.05$) at 95% confidence level. The significance values for relationship between savings among SMEs and Mobile Banking Safety, Mobile Banking Incentive to save and Mobile Banking Convenience were 0.018, 0.031, and 0.024 respectively. This implies that Mobile Banking Safety was

the most significant factor, followed by Mobile Banking Incentive to save while Mobile Banking Convenience was the least significant.

Table 4.6 Correlation Matrix

	Savings among SMEs	Mobile Banking Safety	Mobile Incentive to save	Banking to save	Mobile Convenience	Banking
Customer Satisfaction (r) (p) Sig. (2 tailed)	1.000					
Product Quality (r) (p) (2 tailed)	0.894 0.018	1.000				
Service Quality (r) (p) Sig. (2 tailed)	0.493 0.031	0.316 0.047	1.000			
Perceived Value (r) (p) Sig. (2 tailed)	0.661 0.024	0.163 0.019	0.216 0.047		1.000	

Source: Survey Data (2016)

4.9 Discussions of the Findings

On Attributes of using Mobile Banking, the study established that mobile banking was a safe place to save; transaction time was fast and quick and mobile banking had the capacity to save without others' knowledge. This was in line with Mbogo (2010) whose investigation of success factors attributable to use of mobile payments by micro-business operators recognized that its convenience and accessibility, cost, support as well as security factors play an important part in determining the usage of mobile banking services by micro enterprises and that their use positively affect their growth. That the

mobile money payments enhanced starting of new businesses as it provides an important platform through which small businesses can flourish.

On Mobile Banking Safety, the study found out that the safety and trust worthiness of mobile banking influenced respondent's mobile savings to a great extent. Further, the study found out there was no risk of losing from theft or deception when using mobile banking; mobile banking was reliable because it was a bank account and mobile banking was trustworthy because the customer alone can access their account. A study by Odia (2012) on mobile money in Nigeria with insights from Kenya and employing TAM to examine factors that influence a user's intention to use mobile money found that convenience was a significant factor while security, trust, perceived ease of use and perceived usefulness were also important considerations to the users before embracing mobile money.

On Mobile Banking Incentive to save the study established that that the features of mobile banking as far as its incentive to save influenced respondent's mobile savings to a great extent. On the other hand, mobile banking helped them plan their spending; helped them in avoiding unnecessary and trivial expenditures; there was low withdrawal fees on the mobile banking platform; mobile banking enabled in saving time, energy and cost of transacting in a brick and mortar bank branch and there was an upper limit on transactions. An investigation by Tobbin (2011) on main factors that influenced Ghanaian consumers' acceptance and use of mobile money transfer found perceived ease of use and perceived usefulness to be the most important consideration of purpose to adopt mobile money transfer service despite the studies' limitation such as the fact that mobile money

was still new and researchers had to explain to respondents what the service was all about, that most respondents were illiterate and that it could not be considered as a perfect representation of the entire population due to scope selected. While perceived trust, trailability and perceived risk were also found to considerably affect behavioural intention to use the service.

On Mobile Banking Convenience the study found out that features of mobile banking as far as convenience in savings influenced respondent's mobile savings to a great extent. On the other hand, mobile banking was a good substitute to bank account; there were prompt updates through messages in mobile banking and the agent gives money even if the bank counter is closed. A study by Lule et al. (2012) where he employed TAM to study m-banking adaptation in Kenya found that perceived ease of use, usefulness, self-efficacy and trustworthiness greatly contributed to customers' embracing the use m-banking services.

On Level of Savings the study established there has been less disposable income that the respondents since they embraced mobile banking despite their business income improvement due to savings; respondents had been able to save and buy a much expensive product as a result of mobile savings; compared to the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing and the level of cash donations that they had make has decreased since they employed mobile banking while the level of wasteful spending had reduced since they adopted mobile banking. This agrees with Ng'ang'a (2013) who investigated the effect of mobile banking on saving culture among residents of Molo Town where she found a

great effect on the saving culture of the residents and that those who adopted the service enjoyed the convenience of conducting banking services as and when they needed to.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of the findings, and the conclusions and recommendations of the study based on the objectives of the study. The objective of this study was to establish the relationship between mobile banking and savings of micro and small enterprises in Gikomba Market of Nairobi City County, Kenya.

5.2 Summary

From the study findings, majority of the respondents were females aged between 31 and 50 years old and had at least secondary school qualifications. Further, majority of the respondents were small business owners with average monthly income of ksh 100,000- ksh 500,000.

On Attributes of using Mobile Banking, the study established that mobile banking was a safe place to save; transaction time was fast and quick and mobile banking had the capacity to save without others' knowledge.

On Mobile Banking Safety, the study found out that the safety and trust worthiness of mobile banking influenced respondent's mobile savings to a great extent. Further, the study found out there was no risk of losing from theft or deception when using mobile banking; mobile banking was reliable because it was a bank account and mobile banking was trustworthy because the customer alone can access their account.

On Mobile Banking Incentive to save the study established that that the features of mobile banking as far as its incentive to save influenced respondent's mobile savings to a great extent. On the other hand, mobile banking helped them plan their spending; helped them in avoiding unnecessary and trivial expenditures; there was low withdrawal fees on the mobile banking platform; mobile banking enabled in saving time, energy and cost of transacting in a brick and mortar bank branch and there was an upper limit on transactions.

On Mobile Banking Convenience the study found out that features of mobile banking as far as convenience in savings influenced respondent's mobile savings to a great extent. . On the other hand, mobile banking was a good substitute to bank account; there were prompt updates through messages in mobile banking and the agent gives money even if the bank counter is closed.

On Level of Savings the study established there has been less disposable income that the respondents since they embraced mobile banking despite their business income improvement due to savings; respondents had been able to save and buy a much expensive product as a result of mobile savings; compared to the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing and the level of cash donations that they had make has decreased since they employed mobile banking while the level of wasteful spending had reduced since they adopted mobile banking.

5.3 Conclusions

The study concluded that SMEs were using mobile money for different business purposes including sales transaction, efficiency in purchase of stock, receiving payment, payment of goods and services, savings as well as money transfer, which significantly influenced their business growth. The study also concluded that perceived credibility and perceived financial cost have a stronger effect on consumer intention to adopt and use mobile banking service than perceived usefulness and perceived ease of use.

The study further concluded that the features of mobile banking as far as convenience in savings influenced respondent's mobile savings to a great extent. . On the other hand, mobile banking was a good substitute to bank account; there were prompt updates through messages in mobile banking and the agent gives money even if the bank counter is closed.

The study concluded that there has been less disposable income that the respondents since they embraced mobile banking despite their business income improvement due to savings; respondents had been able to save and buy a much expensive product as a result of mobile savings; compared to the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing and the level of cash donations that they had make has decreased since they employed mobile banking while the level of wasteful spending had reduced since they adopted mobile banking.

5.4 Recommendations

The implication of the findings from this study for policy is that the providers of mobile money services and other stakeholders should adopt appropriate policies to facilitate use of mobile money among SMEs for business growth. One of such policies that could help to foster use of mobile money among SMEs for business growth is removal of Value Added Tax (VAT) on mobile money transactions. The providers of mobile money services and commercial banks should adopt policies that foster integration between mobile money services and the banking system and facilitate the transfer of money across mobile money and banking systems. This will lead to more usage of mobile money services among SMEs.

Communication Authority of Kenya (CAK), which regulates mobile money services, and the Central Bank of Kenya (CBK), which regulates the banking industry, should formulate clear regulations to ensure smooth running of mobile money services. Such measures will guarantee safety of mobile money services and eliminate risk as a barrier to adoption and usage among SMEs.

The implication of this study for practice on usage of mobile money services among SMEs for to facilitate saving is that usage of mobile money contributes to business growth by speeding up transactions, facilitating the efficiency in purchase of stock, facilitating receipt of payments for various goods and services, facilitating savings through storage of mobile money and facilitating money transfer. Hence, it contributes to more revenue leading to more savings. Providers of mobile money services should increase the range of services (offerings) that can be paid for through use of mobile

money. The wider the range of services that can be paid for through mobile money, the higher the likelihood of usage of mobile money by SMEs, and consequently the more the chances for increased savings.

5.5 Limitations of the Study

The study was largely successful however some problems noted included; the scope and depth of the study was limited by the time factor and financial constraints. This put the researcher under immense time pressure. Developing the statistical presentation was an uphill task, since the researcher was not very conversant with the SPSS 22 program. This required some extra training on the software to enable proper usage of the same to get the necessary statistical presentations for the data.

Another limitation was that the study was not conclusive as it did not include some of the other aspects that affect SMEs savings but only concentrated with influence of mobile banking. On the other hand, there was no assurance that the respondents would return all the questionnaires duly completed, neither was there a guarantee that the respondents would respond to all the questions put forward to them comprehensively. Delay resulting from postponement of most set appointments with the respondents. This meant that the researcher had to visit the premises more times than planned and also had to make changes on their schedule.

Most of the respondents were a bit conservative with information. They for feared that the information might be shared with competitors. This decreased the accuracy of the data collected.

5.6 Recommendation for Further Research

There is a knowledge gap as to the relationship between mobile banking and savings of micro and small enterprises. The big question that needs to be answered by future studies is: *What factors influence choice, usage, satisfaction and loyalty to a particular mobile money service among SMEs?*

REFERENCES

- Adewoye, J. O. (2013) Impact of Mobile Banking on Service Delivery in the Nigerian Commercial Banks
- Andrei and Huidumac-Petrescu (2013). Saving and economic growth: An empirical analysis for Euro area countries. *Theoretical and Applied Economics Volume XX, No. 7(584)*, pp. 43-58
- Banerjee, Abhijit V., and Esther Duflo. 2011. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York: Perseus Books, Public Affairs
- Bartel, A., C. Ichniowski and K. Shaw (2005), 'How Does Information Technology Really Affect Productivity? Plant-Level Comparisons of Product Innovation, Process Improvement and Worker Skills', *NBER Working Paper No. 11773, November 2005*
- Bonface., R. M., & Ambrose., J. (2015). Mobile Banking and Financial Performance of Commercial Banks in Kenya
- Cudjoe, A. Anim, P. and TettehNyanyofio, J. (2015) Determinants of Mobile Banking Adoption in the Ghanaian Banking Industry: A Case of Access Bank Ghana Limited. *Journal of Computer and Communications*, 3, 1-19.
- Deaton A. 2005: Franco Modigliani and the Life Cycle Theory of Consumption *Research Program in Development Studies and Center for Health and Wellbeing Princeton University*
- Demombynes, G., & Thegeya, A. (2012, March). Kenya's Mobile Revolution and the Promise of Mobile Savings. *World Bank Policy Research Working Paper*, No. 5988.
- Drexelius K, Herzig M. Mobile banking and mobile brokerage –Successful Applications of Mobile Business? *International management & Consulting*. 2001;16(2):20-23

- Duckworth, A. L., & Weir, D. R. (2011). Personality, lifetime earnings, and retirement wealth. *Working Paper Series 2010-235*, University of Michigan Retirement Research Center.
- Duesenberry, J. S. (1949). *Income, Saving and the Theory of Consumer Behaviour*. Cambridge: Harvard University Press
- Ehigie, B.O. & McAndrew, E.B., (2005), "Innovation, diffusion and adoption of total Quality management", *Management Decision*, Vol. 43(6), p. 925-940.
- Fernandez, S., Otero, L., Vivel, M., Rodeiro, D., 2009, Determinants of the Europeans' retirement savings, *Working Paper*, University of Santiago de Compostela;
- Gough O., Sozou P.D., (2005) "Pensions and retirement savings: cluster analysis of consumer behaviour and attitudes", *International Journal of Bank Marketing*, Vol.23 Iss: 7, pp.558 - 570
- Jack, William and TavneetSuri (2011) "Mobile Money: The Economics of M-Pesa" *NBER Working Paper 16721*
- Kihara,N.S.(2015).The effect of mobile banking on the competitive advantage of commercial banks in Kenya. MBA Degree, United States International University.
- Kothari, C. R. (2008). *Research Methodology, Methods and Techniques (2nd ed., pp. 109-110)*. New Delhi: New Age International (P) Limited.
- Liu, Y. and Li, H. (2009a). Applying enterprise architecture in china e-government: A case of implementing government-led credit information system of Yiwu. *In Proceedings of International Conference on e-Business, Wuhan, China.*
- Longenecker, J. G., Petty, C. W., Moore, J. W. and Palich, L. E. (2006). *Small Business Management, An entrepreneurial emphasis*. London: Thomson South Western.
- LOVE, I., 2011. Empirical Analysis of Corporate Savings in Egypt. *Policy Research Working Paper Series 5634*. The World Bank.
- Lukes, M., Laguna, M. (eds.) (2010). *Entrepreneurship: A psychological approach*. Prague: Oeconomica.

- MacVaugh, Jason and Francesco Schiavone (2010). Limits to the diffusion of innovation: a literature review and integrative model. *European Journal of Innovation Management*, 13 (2),197-221
- Mankiw, G. (2007) *Macroeconomics, the United States; McGraw-Hill*
- Mbiti, I., Weil D. N(2011): Mobile Banking: The Impact of M-Pesa in Kenya. Jun, 2011. *NBER Working paper 17129*.
- Mills, G., &Amick, J. (2010). Can savings help overcome income instability? Perspectives on low-income working families, Brief 18.
- Morawczynski, O. (2009). Exploring the usage and impact of transformational mobile financial services: the case of M-PESA in Kenya. *Journal of Eastern African Studies*, 3(3), 509–525.
- Morawczynski, Olga and Mark Pickens. 2009. “Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA” *CGAP Brief Online*
- Nandhi, M., A. (2012). Effects of mobile banking on the savings practices of the low-income users: The Indian Experience, Institute for Money, Technology & Financial Inclusion (IMTFI), *Working Paper*No. 7, Jesus and Mary College, University of Dehli, India
- Ndumba, H. W. and Dr. Muturi Willy:Factors affecting adoption of mobile banking in Kenya; Case study of Kenya Commercial Bank, Limuru
- Ng’ang’a J. M. (2013). The effect of mobile banking on saving culture. A case of residents of Molo town
- Pan, C.H. and M. Statman. “Beyond Risk Tolerance: Regret,Overconfidence, and Other Investor Propensities.” *Research Paper*10-05 (2010), SCU Leavey School of Business
- Plyler, M.G. and Geetha N (2010). Community-Level Economic Effects of M-PESA in Kenya. Initial Findings. Iris Center, University of Maryland

- Polit D. Beck C (2006) *Essentials of Nursing Care: Methods, Appraisal and Utilization. 6th edn.* Lippincott Williams and Wilkins, Philadelphia
- Porteous D, 2006, "The Enabling Environment for Mobile Banking in Africa", London: DFID. <http://www.bankablefrontier.com/assets/ee.mobil.banking.report.v3.1.pdf>
- Quinn, J.B. (2000) Outsourcing innovation: The new engine of growth. *Sloan Management Review*, 41, 4, 13–28
- Radcliffe, D., & Voorhies, R. (2012). A Digital Pathway to Financial Inclusion. Mbuthia, A. N. (2011). Households 'saving Decisions in Kenya (Doctoral dissertation, Kenyatta University).
- Ramdhony, D. & Munien, S. (2013). An investigation on mobile adoption and usage: a case study of Mauritius, 3rd proceedings Asia-Pacific business research conference, 25-26 February 2013 Malaysia.
- Robson C (2002) *Real World Research. Blackwell, (2nd edition)*
- Rogers, E.M. (2003). *Diffusion of innovations* (5th ed.). New York: Free Press
- greenhalgh, T., Robert, g., MacFarlane, F., Bate, P. and Kyriakidou, O. 2004. Diffusion of Innovations in Service Organisations: Systematic Review and Recommendations. *The Milbank Quarterly*, 82(4), 581-629
- Sekaran, U. & Bougie, R. (2011). *Research Methods for business: A skill building approach. (5th ed).* New Delhi: John Wiley & Sons
- Shaban A. (2014) The effect of mobile banking on customer Satisfaction: the case of NMB Dar Es Salaam zone
- Strydom, P. (2007) Savings behaviour by South African Households. First National Bank.
- Tiwari, Rajnish; Buse, Stephan and Herstatt, Cornelius (2006): Mobile Banking as Business Strategy: Impact of Mobile Technologies on Customer Behaviour and its Implications for Banks, in: *Technology Management for the Global Future – Proceedings of PICMET '06.*

Turnham, J.(2010). Attitudes to savings and financial education among low-income Populations. Findings from the financial literacy focus groups. *Working Paper WP 10 ILO 2016: Poverty reduction through small enterprises*

Vaughan, Pauline. 2007. “Early lessons from the deployment of M-PESA, Vodaphones’s own mobile transactions service” *In The Transformational Potential of M-transactions, Vodaphone Policy Paper Series, No.6*

Wamuyu P. K. (2016)Promoting savings among low income earners in Kenya through mobile money: A Case of Mathare slums

World Bank Report: March, 2015.

APPENDIX I: QUESTIONNAIRE

Please give answers in the spaces provided and tick (✓) in the box that matches your response to the questions on the Effects of Mobile Banking on savings of Micro and Small Enterprises in Gikomba Market of Nairobi County, Kenya

Section A: Demographic Characteristics of Respondents

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

2. What is your gender?

Male () Female
()

3. What is your age bracket? (Tick as applicable)

- a) 30 years and below () b) 31 – 40 years
()
c) 41 – 50 years () d) Over 50 years
()

4. What is your highest level of education qualification?

- a) Post graduate level () b)University ()
c) Tertiary College () d)Secondary ()

5. What is your occupation?

- a) Mitumba Trader () b)Shopkeeper ()
c) Timber Merchant () d) Small business owner ()

6. What is your average monthly income?

- a) Less than Ksh 100,000 () b) Ksh 100,000 - 500,000 ()
c) Ksh500,000 - 1,000,000 () d)Over Ksh1,000,000 ()

7. Below are some of the positive attributes of using mobile banking. Please indicate the extent to which you agree with the following attributes?

Key: 5) Very great extent () 4) Great extent () 3) Moderate extent ()
 2) Low extent () 1) Very low extent ()

	Statement	5	4	3	2	1
1	It is easy and convenient					
2	It is easy to withdraw anytime					
3	It is a safe place to save					
4	Helps avoid unnecessary spending					
5	It has the capacity to save without others' knowledge					
6	Transaction time is fast and quick					

Section B: Mobile Banking Safety

8. Below is some of the features of mobile banking as far as its safety and trust worthiness is concerned. Please indicate the extent to which the same characteristic influences your mobile savings

Key: 5) Very great extent () 4) Great extent () 3) Moderate extent ()
 3) Low extent () 1) Very low extent ()

	Statement	5	4	3	2	1
1	It helps the secrecy of earnings and therefore I have no worry of someone getting to know my bank balance					
2	It has helped me to shift from insecure and unsafe ways of savings that I previously used.					
3	Mobile banking is trustworthy because me alone can access my account					
4	There is no risk of loss from theft or deception					
5	Mobile banking is reliable because it is a bank account					

Section C: Mobile Banking Incentive to Save

9. Below is some of the features of mobile banking as far as its incentive to save. Please indicate the extent to which the same characteristic influences your mobile savings

Key: 5) Very great extent () 4) Great extent () 3) Moderate extent ()
 2) Low extent () 1) Very low extent ()

	Statement	5	4	3	2	1
1	Avoids unnecessary and trivial expenditures					
2	Enabling save of time, energy and cost of transacting in a brick and mortar bank branch					
3	There is low withdrawal fees on my mobile banking platform					
4	It helps me plan my spending					
5	There is upper limit on transactions					

Section D: Mobile Banking Convenience

10. Below is some of the features of mobile banking as far as its convenience in savings. Please indicate the extent to which the same characteristic influences your mobile savings

Key: 5) Very great extent () 4) Great extent () 3) Moderate extent ()
 2) Low extent () 1) Very low extent ()

	Statement	5	4	3	2	1
1	It takes a minimum time to transact under mobile banking					
2	The agent gives money even if the bank counter is closed					
3	There is no minimum balance since I can deposit even smaller amounts					
4	It's a good substitute to bank account					

5	There is no queues, paper work or time waste					
6	There is prompt updates through messages					
7	There is convenient timings as it is a 24 hour service					

Section E: Level of Savings

11. Below is some of the features of mobile banking as far as its levels of savings.

Please indicate the extent to which you relate to each attribute.

Key: 5) Very great extent () 4) Great extent () 3) Moderate extent ()
 2) Low extent () 1) Very low extent ()

	Level of savings	5	4	3	2	1
1	There has been less disposable income that I have since I embraced mobile banking despite my business income improvement due to savings					
2	I have been able to save and buy a much expensive product as a result of mobile savings					
3	When I compare the bank savings one year ago and now, there has been an increase in the deposits despite my business line not changing					
4	The level of cash donations that I make has decreased since I employed mobile banking					
5	The level of wasteful spending has reduced since I adopted mobile banking					

THANK YOU VERY MUCH FOR YOUR TIME