
**EFFECT OF MOBILE BANKING ADOPTION ON THE PERFORMANCE
OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY**

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Abstract

Mobile Banking service are created to help businesses streamline their operations and this, has received immense adoption in Kenya since it was introduced in the year 2007. The study's objective was to determine the magnitude to which small and medium enterprises have adopted mobile banking in Nairobi County, to establish the magnitude to which SMEs utilize the different services offered by the mobile banking and to establish the association between usage of m-banking services and SME performance. The study applied a descriptive type of survey design aimed at finding out effects of m-banking adoption on performance of SMEs in Nairobi County. The population targeted in this research study was 176 SMEs in Nairobi County. Primary data was collected. The study revealed that ease of use, cost effectiveness, convenience; security of the service, accessibility and diversity has enabled SMEs to continue to use mobile banking services. The study also revealed that mobile banking has increased customer base because of easy method of payments, more time to carry out other business activities, easy access to funds in the bank, increased business transactions, increased profits and increased business efficiency. The study made a conclusion that mobile banking adoption positively influences SMEs in Nairobi County. The study recommended SMEs to adopt m-banking services in their organizations. In this way the organization will be adopting the changing technologies so that to remain competitive.

INTRODUCTION

Background of the Study

No. 2 Sessional Paper of the year 2005 indicates that in Kenya SMEs are large groups of enterprises employing between 1-50 workers in all sectors. According to the Kenya National Bureau Statistics (2015), more than 5,970,600 Kenyans who have secured jobs in this informal sector; which translates to roughly 19% of the overall Kenyan population (Chogi, 2016). The reason is less capital is required in to start business in such sectors also it is less structured. SMEs are a primary sector in the country's economy and also in creation of many new jobs, this is because of the continuous growth they are experiencing (Nyangori 2012). Because of affordability of mobile phones and banking services, operators of SMEs in Kenya have opted for mobile payments as means of transaction in their businesses (Moog, 2010).

Services offered by Mobile Banking have been designed to assist in smooth business operations (Moans 2009), since it was introduced in 2007 it has received immense uptake in Kenya. Affordability and accessibility have attributed to its success (Moog 2010). The inventions that are related to technology exhibit ease of use, efficient and can be relied upon with the capability

of expanding financial services to the unbanked or individuals who opt for cheaper financial services. This technological invention is suitable for SMEs that encounter challenges which relate to business operation, this include limited affordable and accessible financial services. SMEs requirements for settlement and services of transacting aren't serviced well by conventional types of banks because for them it's difficult to and it's not cost effective for them to adopt a package from the bank that is full-featured (Higgins, Kendall & Lyon, 2012).

One of the latest information and communication technology that had been discovered in the previous years is the mobile technology. Mobile apps have been created and put into use in distinctive regions. Pervasive and ubiquitous mobile technology has diffused in individual and also in businesses. The effect services offered by mobile services impose on users is that it makes it possible for them to ubiquitous and universal access to information and services, as well as a possibility for a distinctive and individualized exchange of information (Watson *et al.*, 2012). The use of mobile devices is part of daily life, it's a means of keeping in touch with the world, also communicate and network. New technology cannot be separated from our daily lives (Weiser, 2011).

Policymakers and development personnel do acknowledge main task of ICTs for development (Data & Mia, 2009; UNCTAD, 2009). For example, Sustainable Development Goals (SDGs) intends to avail the potential advantages of ICTs to poor areas of the world. Restricted accessibility of SMEs to ICTs is viewed as the major challenge for expansion in a business (Data & Mia, 2009), and ICTs are viewed as assisting SMEs develop strong operations and expand their businesses. Nonetheless, the effect of ICTs on development relies on the ease of access of the technology to the businesses especially SMEs (Monge-González *et al.*, 2007). The research study aimed to determine the impact of mobile banking adoption on performance of SMEs in Nairobi County.

Mobile Banking

Mo-banking is an electronic innovation in the banking sector that uses mobile network and mobile technology communication to achieve connected mobile phones and other mobile devices banking system and also acquire varying financial via mobile interface of e short messaging services(SMS) (Venkatesh & Davis, 2016). The new mode makes it possible for customers to get financial help any place, time and situation, hence making a change to the rule of inter-bank competition. Banks are more focused on provision of services that are professional and personalized; they are no longer concerned with coverage and number of outlets (Ibrahim, Joseph, & Ibex, 2016). The propagation of, and fast advancement in systems based on technology that are technology based, especially the ones that have internet connections, are fast ones to experience change in element in the aspect of customer interaction within a company (Parasuraman & Zink an, 2012).

The usage of mobile phones in developing and developed countries has expanded in a vast compartment. Communication via mobiles is a prime case for betterment of traditional resources, mobile banking (M-Banking) prospect of expanding financial services to those people who are not banking through the use of technology is pervasive and it is recognized too. M-banking was one of the mobile commerce first commercial applications (Barnes & Corbett, 2013). M-commerce is the new term that has arisen due to the fast growing rate of mobile applications.

M-commerce is the use of wire free networks of communications and devices to the performance of trans-actions with money value directly or indirectly (Clarke, 2011). Due to the growth of users of mobile, purchasing goods and services by use of mobile phones and other mobile devices has also grown; more research in the field of mobile banking need to be done since the usage M-Banking was still in its early phases (Barati&Mohammadi, 2009). Through web service technology banks are able to endow information and suggest services to its customers all this is possible through the use of mobile baking (Ibrahim, Joseph, &Ibeh, 2016).

In the commercial domain Mobile banking is one if the mobile techniques that are developing mobile. Information technology and commerce applications have been combined together in it. From the introduction of mobile banking, consumers don't have to visit the banks to carry out transactions; they have also been able to obtain special services throughout. The main method used to support mobile banking is through Short message service (SMS). SMS and mobile are widely used because it saves time, can be used in varying locations and are convenient (Venkatesh *et al*, 2003). Users find fast ease of understanding Mobile banking services.

Varying services provided by Mobile banking are of use to SMEs. It makes it possible for clients to request for bank statements, transfer money to other accounts both nationally and internationally, borrow loan and pay bills e.g. electricity and water., also request for account balance, be notified of account activities thus ensure security, transfer funds to and from mobile money transfer services like MPESA, Airtel Money both to themselves and others and to purchase airtime. This increases efficiency, banking ease and security (Rogers, 2013).

Mobile Banking Adoption

Technology Adoption Life Cycle (TALC) can be used examine Mobile banking abrasion, it elaborates the way emerging concepts and technologies diffuse in varying cultures. According to TALC the steps that individual embraces an innovation are; being aware of the innovation need, choice of acceptance or rejection of the innovation, the usage of the innovation initially to test it and then usage of the innovation continually. Through the steps wide spread is achieved. There are 5distinctivegroups of adopters: innovators, early adopters, early majority, late majority and laggards. Individuals who want to be the first ones to try an innovation are referred to as innovators; their interests are usually on new ideas and are always take risks. Early adopters representing opinion leaders; leadership role is what they enjoy, accept chances of change and they don't need to be convinced to transform. Early majority despite them embracing upcoming ideas before the average individual they still need to see the innovation working before adopting

it. The individuals who are doubtful of transformation and only embrace innovation it being tested by the majority are classified as the late majority. Rogers(2013) stated that those individuals who are very conservative and are confined by tradition are Laggards; they therefore fear innovation.

Embracing of m-banking has increased moderately, with fast increase in usage of mobile or wireless hand devices recently. In the early 2000 studies conducted found that Ireland, Scandinavian, UK and France which are European countries and Germany, including Canada and Japan lead in m-banking. In some Asian countries (Singapore and Malaysia) penetration of m-banking was high while Australia and New Zealand experienced low adoption. Africa was not referred because of the fact that it's still a developing continent and m-banking a new idea in the world of technology. In the mid-2000sstudies were conducted and they indicated that m-banking growth in Sub-Saharan Africa is much faster compared to other places in the world within a very short time span, and it's anticipated to continuously increase(ITU, 2005).

Karjaluoto (2002), stated that mobile banking applications at first targeted consumers in the developed countries. When services such as ATMs, cherub books, among others offered by the bank are complemented, an additional convenient method of money management without handling cash is offered by mobile platform. In the developing world, the major reason users are excited of mobile banking is because of accessibility and affordability; for them it's less about the convenience. In general, in the developing world systems of mobile banking make it possible for customers to perform3tasks: store value in an account which can be accessed in hand devices, transfer money in and out of the account and change what is saved between accounts.

Organisation Performance

Enterprise growth and performance is the process of developing enterprises retains the likelihood of just and steady development of general ranks performance (inclusive of: revenue, sales volume, profit and asset gross) or keeps achieving improvement of overall performance and development quality and level (Sun, 2014). The potential of a firm to grow fast, healthily and continuously means the growth of an enterprise. According to Car land, Hoy, Bolton &Car land, (2013)any organized effort organized and is intended to generate a profit or economic outcome by providing services or products to an outside group is referred to as an enterprise. The operation of an enterprise originally requires capital and time investment in developing, growing or bettering the business activities (Meredith, 2011).

Enterprises having less than 250 workers are considered to be small to medium enterprises. In drawing the difference between small and medium sized enterprises, an enterprise which has fewer than 50 workers is referred to as small enterprise. These enterprises are often referred to as small to medium enterprises and are linked with the owner processor (Meredith 2001; Shaper & Valery, 2014) According to Garlanded *al.* (2013), owner of a small and medium enterprise is a person who starts and oversees the running of a business for the sole reason of furthering personal targets. Their main source of income is their business and majority of their time and

assets is consumed. Owners see the business as part of who they are and are confined by the requirements of their yearnings.

Small and Medium Enterprise

SME have many explanations and reasons, which differ from one region to another and the origin SMEs, report statistics. There is no definition that is universally agreed at of small and medium enterprises reason being for it to be classified as large or small depending on the population of workers, size of assets, volume of sales and volume of capital and yield. The ordinary definitional foundation put in place is employees because it can be compared (Nyangori, 2012). Enterprises which have employees ranging from 1-50 in all sectors in Kenya are referred to as SMEs; this is according to Sectional Paper No. 2 of 2005. The term includes all businesses in sectors that are informal. The individuals working in this areas work in a way that is unorganized hence not regulated. The primary group targeted is low income earners.

According to the Kenya National Bureau Statistics (2005), over 5,970,600 people in Kenya are employed in informal sector, this is about 19% of the total Kenyan population (Chug, 2006). This is because to start a business in this sector requires less capital and it is not structured. Nyangori (2012) observe that the sector of SMEs has continuously grown hence becoming a major sector in the country's economy and also creating majority of new job opportunities. 98% of all businesses in the country are made of SMEs, absorbing a high number of schools, college and university leavers (Malice, 2014). Bowen *et al* (2009) notes that above 50% of newly emerging job opportunities in 2005 were contributed by SMEs. Because of that, increasing growth, innovation and prosperity is a very important role that is played by SMEs (Dahlberg, 2011). This sector is therefore, important because of its fundamental role in the development of the Kenyan economy and thus it cannot be ignored.

The capability of the small and medium enterprises to get aid the greatest challenge till date in the development of new businesses and restricts others from growing and making expansions World Bank (2012). Lennar and Bjorn (2010) noted that a major constraint to micro and small enterprises operations is cash-flow management. This statements in agreement with Booster (2008) who asserted that the collecting debt, inadequate working capital and minimal sales are part of top 5 constraints encountered by SMEs. The obstacles lead to SMEs lacking financial ability to expand and grow. Most formal sectors viewed SMEs as creditworthy thereby denying loans Alien (2009). One of the factors causing stagnant/slow growth in SMEs is the lack of the ability to acquiring financial resources. Negative thoughts regarding them contributes, which have effect on their capability to get financial services which is being provided by financial institutions. Reason being formal financial sectors thinks of them as not being suitable clients as the amount they transact is small. According to Amy (2015), SMEs access to financial institutions is hard because of low levels of capital, poor revenue, absence of records on finance and assets for securing credit from banks and it affects their growth in return.

Statement of the Problem

New Oporto unities which are hard to neglect are created by advancements in the economy due to technology being part of our daily lives, as a means of ensuring they survive majority of organization are trying to find ways of taking in technology. For the purpose of raising efficiency and get a boost to the growth of business through affordable, efficient and reliable money service support systems using Mobile banking services, they lower the want for cash transaction and the risks that come with it. Cashless transaction benefits include; fewer chances of fraudulent and criminal doings and mobile money technology (Wish art 2006) have increased adoption rates, (Moog 2010).

Majority operators of Small and Medium Enterprises find bank accounts to be inconveniencing since it means they have to leave their businesses for them to make a transaction at the bank; this made necessary for Small and Medium Enterprise operators to use mobile banking. Since launch of mobile money transfer system in 2007, the mobile payment system has become famous with both the unbanked and the banked population. Small and Medium Enterprises operators in Kenya have embraces the use of the mobile banking as a means of carrying out transactions in their business because mobile phones are cheap and the affordability of mobile banking services they offer. Arena and Kahoka (2007) made a conclusion that sole type of proprietors and small businesses in Kenya did benefit largely from revolution of mobile phone revolution because it enabled them to save and have access to more clients and new services.

Mobile banking services have experienced massive development and growth during the past years seen an unprecedented development and growth during the past years and it is emerging to be a primary catalyst for economic and social growth in a large number of countries Kenya included. According to Anural, Tragic & Raddi (2009), Small and Medium Enterprises have adopted the use of m-banking technology in their activities. According to Piteous (2006), there is appeal and utility of m-banking and mobile payment services in the whole country as more people have mobile devices than bank accounts (Piteous, 2006).

Empirical literature shows that m-banking is fast, cheap, and safe (Jack & Suri, 2011). Advantages of cash free transaction are; less fraudulent and criminal undertakings and mobile money technology (Wish art, 2016) acceptance rates increased among small and medium businesses in the city (Moog 2010). Although current studies indicate that m-banking acceptance positively impacted reduction of risk, bettering of market, coordination between organizations and labour market (Jenny & Mite, 2010), empirical evidence is limited. Little studies have been done on the effect of mobile banking adoption on performance of small and medium enterprises in Kenya and this is what the aim of this study is. This study sought to carry out a research study to determine the effect of mobile banking adoption on SME performance in Nairobi County in order to fill the existing gap in research. To find out if the use of mobile banking adds value to SMEs by increasing their performance.

Objective of the Study

General Objective

The main objective of the study was determining the effect of mobile banking adoption on performance of SMEs in Nairobi County

Specific Objective

The following specific objective guided the study

- i. To establish the extent to which small and medium enterprises have adopted mobile banking in Nairobi County
- ii. To establish the extent to which SMEs utilize the different services offered by the mobile banking.
- iii. To establish the association between use of m-banking services and SME performance.

Research Questions

The study sought to answer the following research questions

- i. To what extent have SMEs adopted mobile banking in Nairobi County?
- ii. To what extent are SMEs in Nairobi County using the different services offered by mobile banking?
- iii. What's the association between m-banking adoption and the performance of small and medium enterprise in Nairobi County?

Significance of the Study

The finding of the study was of greatly important to the management of SMEs as they shed light on effects of adoption of mobile banking on how small and medium enterprises perform, this assisted them in formulating strategies that would assist in the adoption of m-banking by SMEs in Kenya. The finding of the study might be of significance to individuals responsible in formulating policies in the government because of knowledge on the impact of m-banking adoption have on SME performance, this will help them in formulating policies that assist SMEs in embracing mobile banking. The study findings were of great importance to scholars and academic students because it formed a basis for future research and to the body of knowledge on the acceptance of m-banking by SMEs The study was also important to banks which had invested billions in improving their banking systems to provide mobile banking services and know ways they can improve their mobile banking services and ways of making it more useful to its customers.

Scope of the Study

The study sought to establish the effect of mobile banking adoption on performance of SMEs small in Nairobi County. The target of the study was small and medium enterprise within Nairobi County in the Nairobi Central Business District Area. The study was conducted in year 2017 and data was collected during this period.

Limitation of the Study

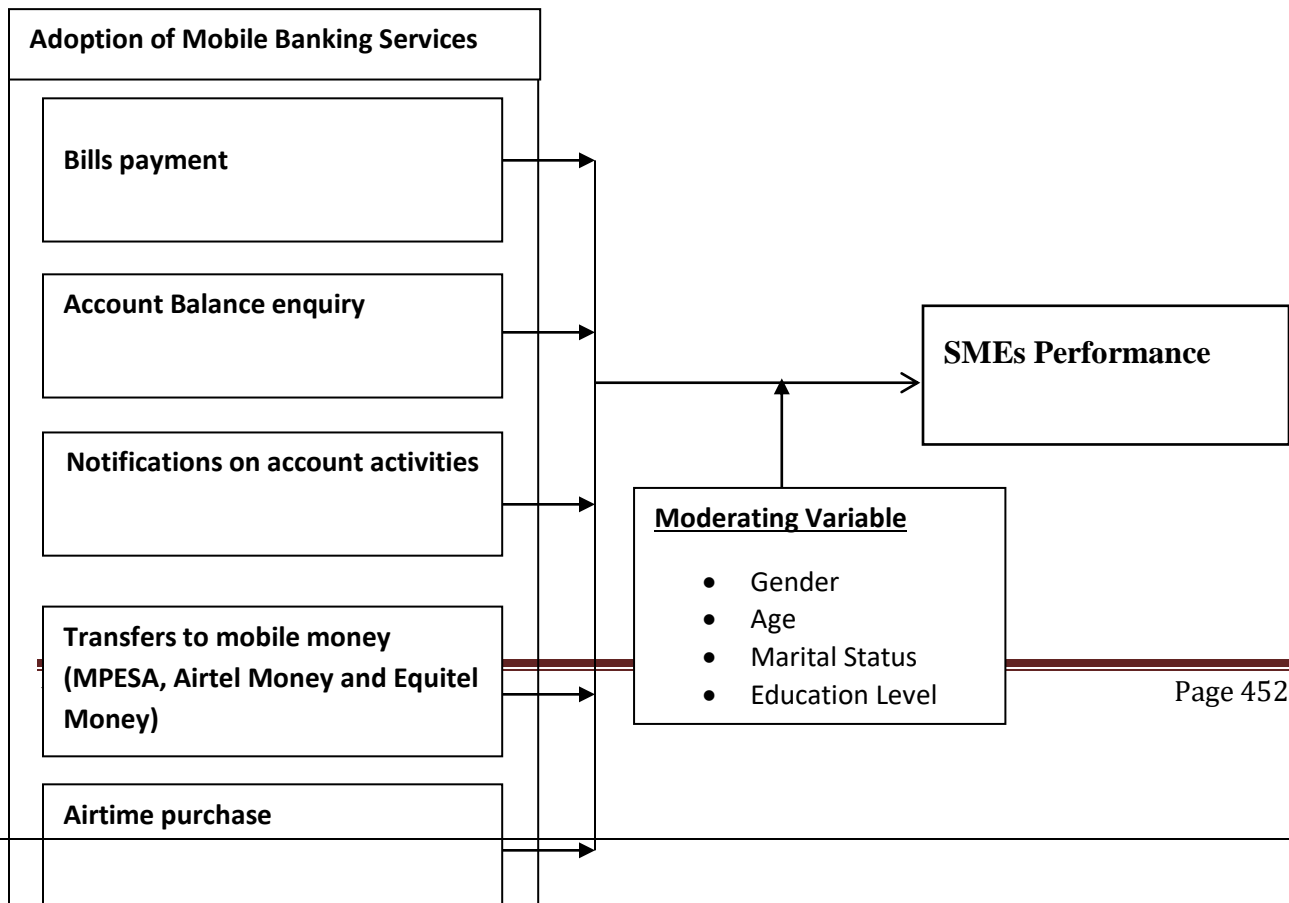
Financial problems experiences by the researcher were in terms of photocopying, secretarial services, transport costs. Because the researcher lacked experience he faces some problems.

Conceptual Framework

This is representation of the independent variable and the dependent variables in a diagram to show the relationship between the variable. It lays out the primary factors, constructs, or variables, and speculates association among them. An independent type of variable is the speculated reason of transformation in the dependent variable. According to Creswell, (2009)the variable in which the researcher wants to explain is the dependent, also referred to as the criterion or predictor variable. By studying literature, the following linkage between independent variable mobile banking services and dependent variable SME performance is developed.

Independent Variables

Dependent Variable



Source: (Author, 2018)

The illustration in Figure 1.1 above shows the 2 kinds of variables. In this study, the independent variables are Banking services; bill payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase which are offered services in mobile banking, while the dependent variable is SME performance of which the study sought to find how it is affected by the different independent variable, and the moderating variables are the marital status, gender, age, and education level.

Mobile banking has made revolutions on how money is being transferred by people in developing countries and as of now it is it's guaranteed to provide sophisticated banking services that have the potential to create difference to the lives of the people. This type of banking provides excellent types of services, first being account data that alerts the customers through their mobile phones on any updates and transactions on their. Through text messages customers are informed immediately about a transaction they have made in their personal bank account. Additionally, they help in making payments (utility bills), deposits, withdrawals, transferring money, buying airtime, requesting for bank statements and carry out thirteen crucial banking tasks, bushed real time over their mobile phones. Banks at the side of normal leased Bank (Uganda) (Buyer and lenders, 2006) have mostly imposed technology of service delivery as a simple method to supplement the history of service made available by personnel (How craft Facet, 2006).

Varying services are provided by Mobile banking and SMEs find these services. Clients can request for bank statements, make money transfer to other accounts, domestic and international, borrow loans, pay for bills e.g. electricity and water, check balances in account, receive notifications of activities in their account which increases security in accounts, transfer funds to and from mobile money transfer services like MPESA, Airtel Money both to themselves and others and to purchase airtime (Rogers, 2013).

CHAPTER TWO

LITERATURE REVIEW

Introduction

In these chapter literature from empirical and theoretical aspect are both reviewed. It comprises of research gaps, empirical review and theoretical review. Literature review relates to longer dialogue still in progress in literature of the topic, filling in gaps and expounding studies done before. It avails basis for determining the advantages of the research study and also the benchmark for results comparison of the study. The discussion of the literature review of the impact of m-banking adoption on performance of SMEs in Nairobi County is discussed in this chapter.

Theoretical Review

Theories that guided the study are reviewed in this section. It comprises of the theories governing innovations such as mobile banking. The section examines particularly, the diffusion of innovation theory which elaborates how with time, an idea or product gains momentum, diffuses and is adopted by a specific population or social system. Finally it reviews the technology acceptance theory, which holds that ease of use and usefulness of innovation playas significant task from the view of innovation acceptance behaviour.

Innovation Diffusion Theory (IDT)

Bradley and Stewart (2002) officially introduced theory and it agreed that to reduce costs, protect strategic owning and gain competitive advantage firms are engaging in diffusion of innovation. Rogers in 1962did put forward an innovation diffusion theory that researches on how innovation is spread among the people using it with time (Liu & Li, 2009). Also it assists to comprehend clients" character in the embracing or not embracing innovation"(Vaughn, 2007). The theory depicts theta distribution curve that is bell-shaped can be grouped in five categories to categorize users based on innovativeness is followed by the adopters of any innovation (Liu & Li, 2009). Users were classified by Rogers as innovators, late and early majority, early adopters, and laggards that's according to Liu and Li(2009).

The embracing and also the usage of m- banking possess the ability to extending the restricted nature and reaching poor and rural population in Africa. According to Mass and Morawczynski (2009) Most of the literature that exists is from the developmental/practitioners' arena with a few scholarly studies emerging. The studies from practitioners provide information that is of value on the actual use and contextual information on the development and use of the phenomenal despite them not being peer reviewed. For instance, I votary and Pickens (2006) provided useful information on the character of early type of adopters of WIZZIT, one of the most effective way dedicated to provide the low income earners m-banking South Africa. Ethnographic task of Morawczynski within a period of 18 months visit in Kenya is also very important (Morawczynski & Krepp, 2011).

Using traditional technology acceptance models and frameworks to the embracing of m-banking services, the aim of the study is elaborate the establish editor tureen information systems. The use of this theory establishes the effect of m-banking adoption on SME performance in Nairobi County.

Technology Acceptance Model (TAM)

According to Davis(1989) TAM is among information systems' that have greater influence theories which were theorized for the intentions of creating the information systems' acceptance by prospective users, that is forecasting IS/IT embracing and determining any problems that are existing before the system is used.

TAM made a suggestion that whenever a new technology is introduced to users; they choose how and when they decide tousle the technology depending on some factors. One of the elements is PU (perceived usefulness): which is "the extent to which an individual believes that making use of a specific system would improve his work performance" and Perceived ease-of-use (PEOU): which is "the degree to which an individual believes that using a specific system would be free from effort". Within the basic constructs of TAM, PU and PEOU constructs are the factors most commonly referred to. This mirrors their influence in establishing user acceptance of technology, and shows the significance of TAM as an easy, predictive, and robust tool to study the adoption of IT by users .This theory will be used to establish the impact of m-banking adoption on SME performance in Nairobi County.

Empirical Review

Uptake, usage and possible market of services of mobile money in Tanzania were investigated by Inter Media (2013). 2,980 households were involved. Data was obtained by using questionnaires and conducting interview. The research study established that the majority registered mobile money users did register for the purpose of purchasing inventory and receiving pay for goods and services. It was also established that no distinction existing on how mobile money services are used in business between rural, urban and peril-urban registered users.

Higgins, Kendall and Lyon (2012) studied the pattern of mobile usage by SMEs in Kenya. They studied a total of 865 SMEs businesses located in both urban and semi-urban areas. They established that for any activity owners of SMEs use mobile money for e.g. paying bills, supplies, salaries, etc., they are always in large quantities. From the data out of 865 SME owners, 861(99.5%) did use services of mobile money in business activities and also personal and 67% used it for the purpose of the business.

Moog (2010) investigated success factors which were being credited to the use of mobile payments by micro-business operators. The foundation of the study was a survey carried out by issuing of questionnaires. The study collected data from 409 micro-business owners in Nairobi, Kenya. The study made use of TAM, which was expounded to include other factors to help in making a prediction of triumph and development in micro-businesses. There sultsestablished that

convenience, accessibility, cost, support and security factors are related to behavioral intention to use and actual usage of the mobile payment services by the micro businesses to improve/stimulate their triumph and development. It was also established that entrepreneurship is being promoted by mobile money.

Odin (2012) studied mobile money in Nigeria with insights from Kenya and used TAM to study elements influencing a user's reasons of using mobile money. The basis of the research was survey done using questionnaire and interview that were semi-structured in nature. The findings showed that the predicting variables of the reasons for use of mobile money in Nigeria is inclusive of convenience, it's easy to use and usefulness, with convenience being the most significant factor.

Tobin (2011) generalized technology acceptance model and diffusion of innovation to research on major factors influencing consumers' in Ghana accepting and using mobile money. Data was gathered using self-administered questionnaire. The determinants of behavioral intent of using mobile money transfer in Ghana that were most significant were ease of use and usefulness. Behavioral reason were established to be significantly impacted by Perceived trust, trial ability and perceived risk. Despite the useful information on the factors that contributed to mobile money adaptation in Ghana, there are limitations. First, the researcher had to explain to most of the respondents about mobile money transfer since it was still in its early stages. Second, the respondents had a problem in understanding and interpreting the questionnaire since they were illiterate and the researcher had to interpret the questionnaire for them.

Abdelghani and Aziz (2013) researched on the intents of Moroccan customers to accept and use mobile money using diffusion of innovation. Descriptive statistics was applied, t-test and multiple regressions. A total of 400 questionnaires issued at random to Moroccan banks' clients were used, they established that Moroccan clients were willing to embrace the use of mobile money. Further, the findings revealed that uneasy, relative advantage, harmony and trial ability predictors are great intents for adoption of adopt mobile money in Morocco. Lula, Moans and Weems (2012) used acceptance of technology model to investigate on m-banking acceptance in Kenya. The basis of the study was 450 questionnaires given to mobile money customers. The study found out that ease of use, usefulness and perceived credibility influence customers' opinion on usage of m-banking in a significant way.

Salem and Rashid (2011) investigated the association of clients' satisfaction and m-banking case study of Pakistan. 230 Questionnaires were administered to bank workers and 230 clients of the bank. From the results it was established that concerns by the customers on security, authenticity and technology reliability were important. The findings implied that organizations should concentrate on IT application, services of innovation, security, and trust from customer and risk because of them being primary determinants of technology acceptance.

Morawczynski and Pickens (2009) carried out an ethnographic study in Kenya, on the way poverty-stricken individuals make use of M-PESA and its implications on their livelihood.

Above 350 individuals were interviewed. Most of those interviewed revealed that mobile money services satisfied them and above two thirds indicated that mobile money services have impacted their lives positively. Ayo *et al.* (2012) carried out an experiment with 30 users of mobile money on an original mobile money implementation in Nigeria, to investigate how mobile money system components performed. To get users' feeling of the system of mobile money and how users' are satisfied with the system questionnaire was issued. About two thirds indicated that, to them the system was satisfying.

Inter Media (2012) did a project to follow on the uptake usage and possible market of mobile money services in Uganda by use of 3,000 respondents. Interviews with registered customers of mobile money were the basis of data collection. Some of the troubles the users of mobile money faced were number of agents being inadequate mainly in undeveloped areas; irregular performance by agents; inadequate money for transactions; absenteeism by agents' and little and network issues.

Nugget, Pelosi and Gumbo(2010) studied crucial elements leading to speedy growth of mobile money banking services in Kenya. 102 people who were sent questionnaire through email responded. Also, 67 individuals of ages bracket of 20 to 40 years filled the entire questionnaire, thus it's a reflection of the young, internet visiting generation. Major challenge was repeated failure of system, security and challenges that are related to fraud and also shortage of electronic float among majority of the agents, thus restricting the amount received by an individual at any given time. The study expounded on mobile money adaptation, despite that, the participants sample might not be efficient representation of the Kenyan population at large because this involved young generation.

Higgins *et al.* (2012) studied the pattern of the use of mobile money by Kenyan SMEs. He studied a total of 865 SMEs randomly chosen from database of 160,000 SMEs in Kenya. The study established costly tariffs and limited accessibility to kept record inclusive of management payment in terraces was the main obstacle to adaptation.

Ngaruiya, Bossier and Kama (2014) studied the effects of transactions by mobile money on SME performance, financially in Nauru CBD. The intention of the study was to establish the impact mobile money transactions impose on SME financial performance in Nauru CBD. Descriptive type of research design was used. 120 out of 640 businesses were sampled by use of purposive method of sampling. Questionnaire technique was applied in collecting data. The study findings revealed that transactions by mobile money significantly affect sales revenue.

Sibiu (2015) studied mobile money transfer and the growth of SMEs in Kenya a case study of Kyushu city, Kenya. The study revealed that mobile money exhibited to have important contribution to the SME sector. The study thus attained its objectives and got comprehensive insight accruing from use of services offered by mobile money by SMEs. In reference to the

conceptual framework, mobile money transactional rates and financial accessibility have an impact on the development of SMEs.

Huang (2008) carried out an investigation on the influence of mobile phones on SME performance, a case of Auckland, New Zealand. Questionnaire was applied to gather primary type of data. The study's findings showed that majority of SMEs used mobile technology in conducting their business undertakings. In addition, the study findings showed that mobile devices usage made it possible for SMEs to grow their annual revenue because of more business opportunities in networking.

Bangers and Overberg (2008) did an investigation on the task of m-banking and its capability in providing of primary banking services majority of people in Sub-Saharan Africa. Primary and secondary sources were applied to obtain data used in the research study. From the results, trough mobile banking financial transactions has been made possible and also payment of funds. In addition, the findings of the study showed that through mobile banking operations and competitiveness of SMEs has been improved.

Chug (2006) investigated mobile phone technologies impact on SMEs in Nairobi. Questionnaires that are self-structure were applied to gather information for the study. The study established that most SMEs opinion was that mobile phones positive ely affect their turnover. The study also found that most of SMEs discerned that through mobile banking they had the ability to lower their operation cost.

Use of mobile phones by SMEs in countries that are developing was studied by Donner and Escobar (2010). To collect data from 14 studies that had investigated use of mobile by SMEs, questionnaires were used. From their findings, SMEs have become more productive and have bettered their sales by the help of mobile phones and in return their financial performance has improved.

Using a case of Kenya, Ambary (2009) who studied m-banking in countries that are developing. The objective of the study was to come up with significance of m-banking in daily running of small businesses in Kenya and to make an understanding on the challenges associated in the use of m-banking as tool of business and cherish its advantages. The study explained that the acceptance and usage of mobile phones isa product of social process.

Lawrence (2015) examined the elements that have influence on the acceptance of ICT in SMEs: A Research Preliminary Findings. Through the use of ICT in organizations many opportunities are available, especially in SMEs with the early adopters' successes well publicized. Thus, most of organizations that aren't taking advantages of the ICT are currently revisiting their options. The intentions of this study are to check factors influencing SMEs' decision in adopting ICT in business. The diffusion theory, the technology acceptance model and information richness will give the theoretical basis for this study. Prior findings of the research study are expressed and sample questions emerging from the study to be placed in use in final questionnaire.

Garg (2016) did a study on ICT adoption and SME's: a contextual framework. The basis of the paper was rooted on the objective of impact of ICT on small scale industrial units of India; trial to explain different problems in the sector and overpower them to make small scale industries competitive through academic literature. SME's has a significant part in the industrial economy general growth of the country. SME' sin India are referred to as economy's backbone. About 40% of India's workforce are employed by these enterprises and contribute 45% to India's manufacturing revenue, that's the reason for them being the economy's backbone; they create a lot of low-skill job opportunities (millions). 40% of general exports in India are accounted by country's 1.3 million SME. With the current state the growth of our economy is impossible without growth and development of the SMEs; these enterprises are far behind the large counterparts in the economy. The purpose of this study is to establish how and why SMEs get or embrace ICT and the challenges surrounding the process.

Osorio-Gallegos, Londoño-Metaute and Lopez-Zapata (2016) did an analysis on factors influencing ICT acceptance by SMEs in Colombia. The objective of this study was analyzing the elements that influence the acceptance of ICT by SMEs in Colombia. For the hypothesis to be proven, a sample of 474 SMEs in Colombia was administered with questionnaire concerning the abrasion of ICT and independent type of variables that were established in the literature review. Multiple regression models were then done using the collected data. The researcher came up with a model displaying how new business opportunities that ICT offer and their levels of adoption are related. The research also established that a perception of ICT cost-benefit lack of balance influences implementation of technologies negatively.

Alma and Nor (2009) studied ICT Adoption in SMEs: an Empirical Evidence of Service Sectors in Malaysia. The objective of the study was to acquire anon-depth knowledge on factors that affect the acceptance and usage of ICT by SMEs in Malaysia. This study examined the relationship between information and communication technologies (ICT) adoption and its five factors which are perceived benefits, perceived cost, ICT knowledge, external pressure and government support. From the three factors that were studied are of great importance to the adoption of ICT whereas perceived cost and external pressure are insignificant in finding out its adoption.

Kafue (2013) studied the determinants of adoption of ICT and its usage by SMEs: The Case of SMEs in Theca Municipality, Kenya. This study was done to investigate the factors that determine adoption of ICT and its usage by SMEs in Thika Municipality, Kenya. Cross-sectional survey of 75 SMEs was performed; from atonal of 240 SMEs, stratified random sampling technique was applied to come up with a sample size. The results showed that68% ICT adoption index; of the most adopted were mobile phones and ICT usage, followed by fixed phones and computers. For the purpose of basic applications of communication and office automation most enterprises used ICT. Very low use of advanced ICT applications was experienced.

Niece, Horseman and Flower day (2014) did a study on capacity of absorption and adoption strategies of ICT for SMEs: a Case Study in Kenya. Many SMEs in developing countries

continually encounter obstacles in their adoption process if information technology (IT), which most of the time is denoted by some of insufficiencies. The objective of this study was to establish the purpose of AC in performance of SMEs', and also find out the correlation of SMEs', AC and their IT process of adoption. The results from the study suggested that, AC has an important play in the performance of SME sin Kenya and that those SMEs which had powerful AC made use of more powerful procedures of embracing IT compared to those who had low AC levels. The study admits that, AC possesses the ability of improving the embracing of IT strategies of SMEs in Kenya and also of other countries that are developing and operate within the same environments.

Monge-González (2005) did an evaluation on ICTs importance in the bettering productivity and competitiveness of SMEs in Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. Usage of computers and the Internet by majority of employees, the presence of a budget to buy and for maintenance computers and Internet services, a focus on scientific doings related with business doings and a being willing to get into e-commerce are some of the inside elements that support the adoption of ICTs in SMEs. The major finding of this study was that SMEs usage of ICTs in their business activities is still restricted.

Major income in countries is generated by SMEs, a ground for entrepreneurs and a provider of employment to multiply (Mutual).SMEs would benefit greatly by embracing ICTs processes in their business ([Maguire et al., 2007](#)). SMEs face lot of challenges that make it hard for them to be competitors with big enterprises. One of the biggest challenges is unavailability of ICTs embracing in their business processes. It's acceptable that ICTs create lot of potential benefits to organizations enabling them more to be more efficient, effective and competitive ([Fink &Disturber, 2006](#)).

Majority of SMEs in countries referred to as developing do not have the required procedure of evaluating their need for IT. Such procedures include pointing out processes that may be beneficial from adoption of IT. Majority SMEs think of such a process to be a lot of work and consumes their time (Awa, Ezek & Oriento, 2011; Manochehriet *al.*, 2012). For this reason SMEs get involved only in requirement engineering activities just before their decision making on whether to adopt IT or not. The choice of whether or not to get technology, the technology type required, and the place of obtaining it is in generalise reached an ad hoc way by management without involving other employees/stakeholders (Niece, 2012; Awa 2011).

Research Gaps

From theoretical and empirical literature above, little research has been carried out on mobile banking adoption effects on performance of SMEs in Nairobi County. Most of the existent studies have been carried out in other economies having different operating environment from that in Kenya. This study intends to fill this gap in research.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

In this chapter the methodology of the study is discussed. This chapter covered the research design that was adopted for the study, target population for the study, sampling techniques and sample size, data collection techniques, pilot testing and procedures for data analysis and presentation. It discussed the methodology used to find out the effects of strategic management practices on performance of oil marketing companies.

Research Design

The organisation of conditions for gathering and analyzing data in a way that purposes to combine relevance to the research purpose with economy in the procedures known as research design (Bobbie, 2002). Descriptive type of survey design was applied with the intentions of finding the impact of adoption of m-banking on SME performance in Nairobi County. This design infers to a set of techniques and steps that gives a description of the variables. It involved collecting data that describing the events and then organizing, tabling, depicting, and describing the data.

Descriptive studies express the variables by giving answers to who, what, and how questions (Bobbie, 2002). Cooper and Schindler (2004), did a study purposing to find out who, what, when, where and how of a situation is referred to as a descriptive type of study, which is the intention purpose of the research project. This research design was rendered appropriate because it showed an exhaustive investigation to determine mobile banking adoption effect on performance of SMEs in Nairobi County.

Target Population

An entire group of people, objects, items, cases, articles, or things with common trait or behaviour that exist in space at a given point of times what population is made of (Baker, 2009; Mujumdar, 2005). The population under study was made up of 176 SMEs in Nairobi County (NC, 2016). According to Kothari (2008), specific population that information is needed and generalization of results needed is termed in statistics as a target population. The targeted population for this research study was 176 SMEs in Nairobi County, which are classified as general merchants (Nairobi County Inspection Department, 2017).

Sample and Sampling Technique

A sample refers to a subset of a given population while sampling is the exercise concerned with the choosing of observations with the purpose of generating some insight concerning a population of concern especially for the intentions of statistical conclusions (Magenta and Mugenda, 2008). Sample size is a representation of the population targeted. A list of all sampling

units which a sample will be extra cited from is referred to as sampling frame (Combo & Tromp, 2006).

The sample size represents the target population. A detailed list of all sampling units, from which a sample is drawn from, is sampling frame (Combo & Tromp, 2006). The list of all 176 SMEs was the sampling frame which was in the class of general merchants in Nairobi County, from where the respondents were selected. The study used the Crecy and Morgan (1970) formula to get to the sample size of 122 firms. The selection formula is as follows:

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

Where n= the required sample size

N = is the Target Population (176 SMEs)

e = accuracy level required. Standard error = 5%

Sample calculation

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

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

$$n = \frac{176}{1 + (176-1)0.05^2}$$

$$n = \frac{176}{1 + (175)0.05^2}$$

$$n = \frac{176}{1.4375}$$

$$n = 122.43$$

$$n = 122 \text{ SMEs}$$

The study used random sampling to arrive at 122 SMEs, (Cooper and Schindler, 2003) random sampling often reduces the error of sampling in the population. This in return will increase the accuracy of any estimation technique put in place. Purposive sampling was applied by the study for the purpose of selecting a single senior employee (Finance Manager) from respective firms thus generating a sample size of 122 respondents who we reissued with the questionnaire.

Data Collection Instruments

Primary type of data collection n was done using pre-determined questionnaires. Open and closed ended questions were both applied in gathering primary type of data. According to

Creswell (2000), methods of gathering primary type of data include: structured and semi-structure questionnaires, personal and telephone interviews, observation and focus group discussions. Often methods applied when respondents can be accessed and are willing to cooperate are questionnaires.

Questionnaires have the ability to reach a vast population of individuals with the ability read and write. Questionnaires used by this study had both closed-ended, open ended and dichotomous questions. Because of its appropriateness Likert scale questions were applied; they obey by the rule of being valid, reliable and considerate. Unstructured type of questions were applied in for the purpose of motivating respondents to provide a comprehensive and felt reply without a hunch of holding back in expressing of any information that is relevant. Secondary data was obtained from published materials available in newspapers, magazines, journals, the internet and libraries.

Data Collection Procedures

Primary and secondary types of data were used by the research study. Secondary data was obtained from research in the library, management books, research reports and the internet. To collect primary data the method that was applied was deliver and pick. The structured questions were applied in an effort to save time and funds and also enable an ease of analysis.

Data Analysis and Presentation

Quantitative type of data analysis was performed using descriptive statistics executed in SPSS (Version, 23) and its presentation was by use of percentages, means, standard deviations and frequencies. The information was illustrated using bar charts, graphs and pie charts and in prose-form. This was performed by calculating responses, percentages of variations in response as well as explaining and making inference on the data in basing on the study's objectives and assumptions by using SPSS (Version 23) to explain the findings of the research. Content analysis was applied to examine qualitative nature of data gained from open ended type of questions.

According to Levin & Rubin, (1998) correlation analysis is can be applied to establish the degree of association existing between two variables. To determine the intensity of the association existing between independent and the dependent types of variables the study did perform correlation analysis. This helped to discern any instance of multi co linearity. 0 Correlation value indicated there isn't an association between the dependent and independent variables, a correlation of ± 1.0 indicates a perfect positive or negative relationship (Hair 2010). The values explained ranged between 0 indicating no association and 1.0 indicating perfect association. When $r = \pm 0.1$ to ± 0.29 the association was considered to be small, while it was viewed as medium when $r = \pm 0.3$ to ± 0.49 , and when $r = \pm 0.5$ and above, the association was viewed as strong.

Multiple regressions were performed to find out mobile banking adoption effects on performance of SMEs in Nairobi County. Tables and pie charts were used to present the data to enable it be friendly to the reader. Multiple regressions were also applied in measuring the quantitative type of data and were analyzed by use of SPSS too. The regression equation was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Whereby

Y = Performance of SMEs, X₁= bills payment, X₂= account balance enquiry, X₃= notifications on account activities, X₄= transfers to mobile money, X₅= airtime purchase. β_0 = Constant, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ and β_9 are coefficients is the error.

This produced quantitative reports by tabulations, percentages, and measures of central tendency. The researcher then explained the findings of the research inferring to the evidence from the collected data. Conclusions were drawn based on the results. The researcher was guided by the study's objectives, and gave the recommendations. Magenta and Magenta (2008), explains that recommendations must be in line with the intents of the study and its objectives.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

Introduction

In this chapter discussion of the analysis of data, interpretation, presentation and discussion of the results obtained from field study. The background information of the respondents, results of the analysis basing on the study's objectives. Descriptive and inferential types of statistics were applied to discuss the results of the study.

Response Rate

The target of the study was 122 respondents; those who filled and returned the questionnaire were 112, which formed a response rate of 91.8%. 50% rate of response is suitable for analyzing and reporting; 60% is good and 70% and above is excellent (Magenta & Magenta 2008). Hence in our response rate of 91.8% is excellent. This is as shown in Table 4.1

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	112	91.8
Unreturned	10	8.2
Total	112	100

General Information

Respondents Gender

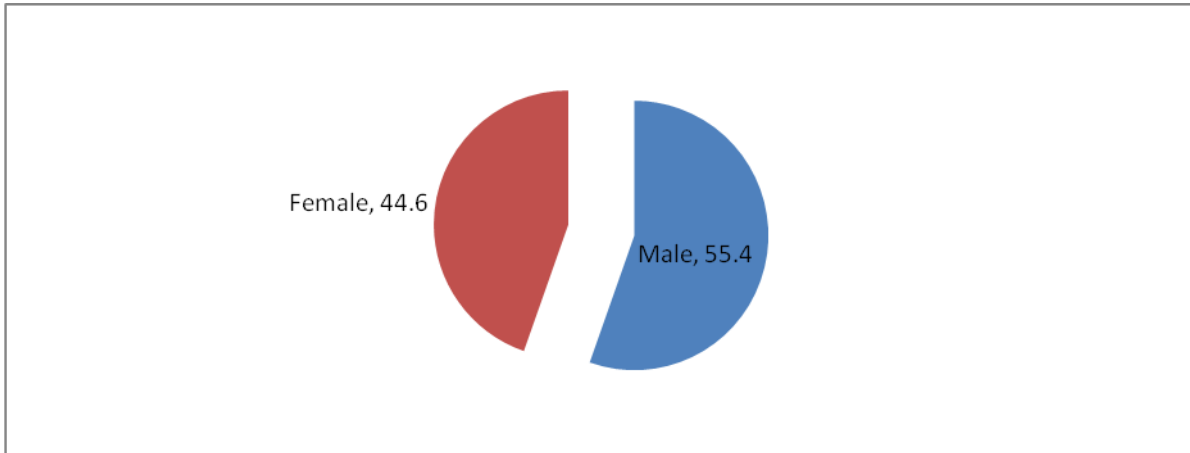


Figure 4.1: Gender of Respondents

The respondents were asked their gender. The results showed 55.4% were male and 44.6 % were female. This is an indication that the research study used both genders hence there was no gender bias.

Age of Respondents

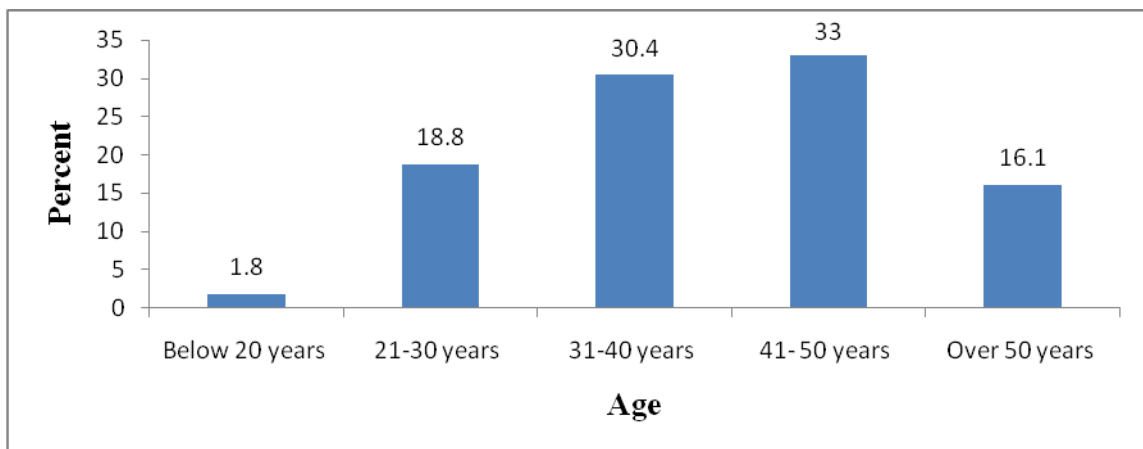


Figure 4.2: Age of Respondents

The respondents were requested to indicate their age; the results were as illustrated in Figure 4.2. From the findings 30.4% were of ages 31-40, 33% were of ages between 41-50 years, 18.8% were aged between 21-30 years, 16.1% were over 50 years and 1.8% were below 20 years. This shows most individuals used in this study were aged between 31-40 years.

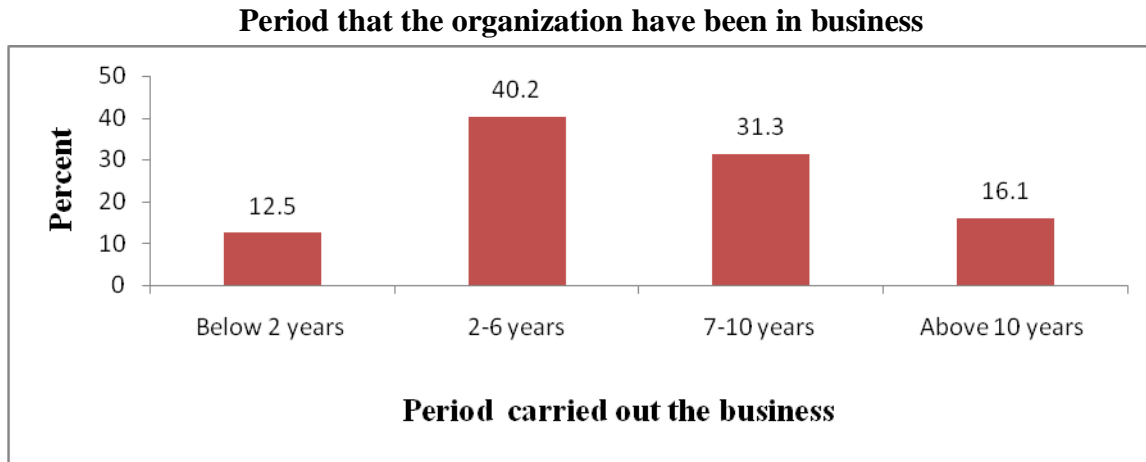


Figure 4.3: Period that the organization has been in business

The respondents were asked the period of time they have been in this business. From the results 40.2% have been business between 2-6 years, 31.3% between 7-10 years, and 16.1% above 10 years and 12.5% below 2 years. This implies most respondents have been business between 2-6 years.

Number of Employees in the Business

Table 4.2: Number of Employees in the Business

Number of employees	Frequency	Percent
1-10 employees	14	12.5
11-30 employees	35	31.3
31-50 employees	30	26.8
51-100 employees	18	16.1
Above 100 employees	15	13.4

Total	112	100.0
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The respondents were asked the number of employees in their organizations. From the results 31.3% had between 11-30 employees, 26.8% indicated they had between 31-50 employees, 16.1% indicated they had between 51-100 employees, 13.4% indicated they had above 100employees and 12.5% indicated they had between 1-10 employees. This implies that most organizations had indicated they had between 11-30 employees.

The respondents were asked their position in the firm. Some respondents indicated they were head of organization departments and others indicated that they were subordinate employees.

Period worked in the current position



Figure 4.4: Period worked in the current position

The respondents were asked their current position in the organization. As per the results, 35.7% of respondents indicated that they had worked between 5-10 years, 25% below 5 years, 21.4% between 10-15 years and 17.9% between 15-20 years. This shows majority of individuals used in the study had worked in the current position between 5-10 years.

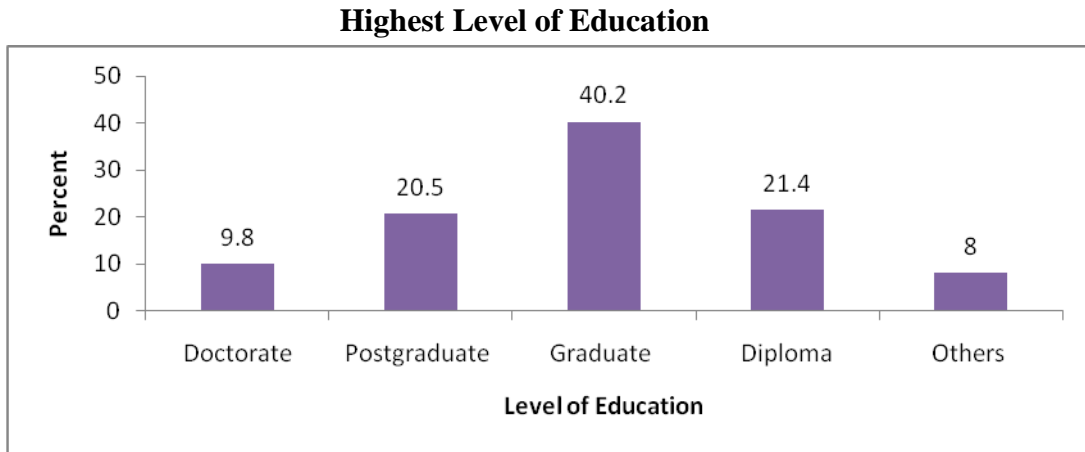


Figure4.5: Highest level of education

The respondents were asked their highest level of education. According to the results 40.2% of the respondents were graduates, 21.4% had diploma certificates, 20.5% had postgraduate studies, 9.8% had doctorate studies and 8% had other education qualifications. This shows that most respondents were graduates.

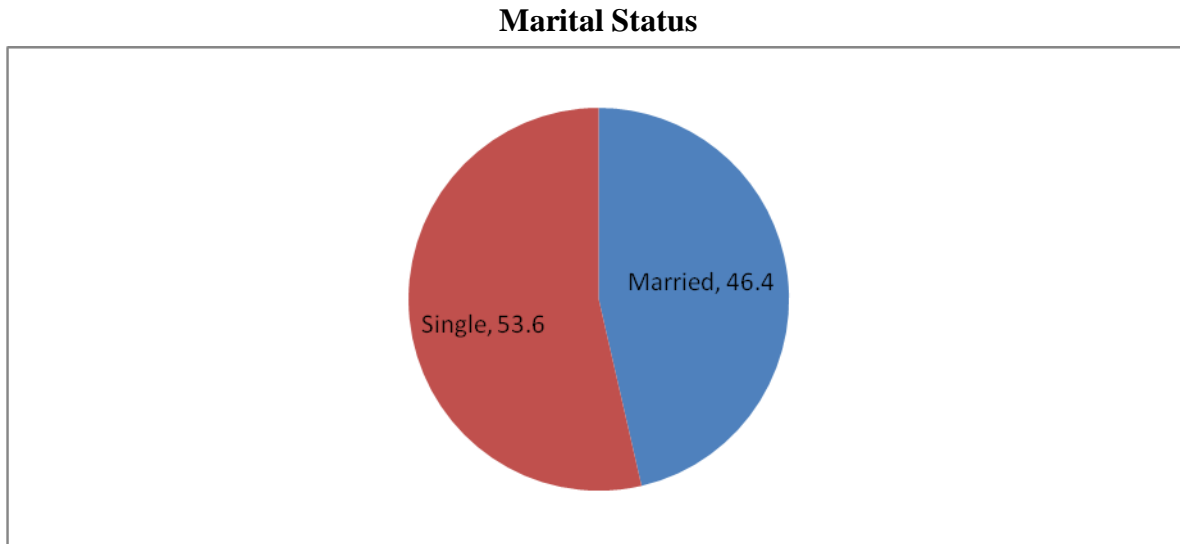


Figure 4.6: Marital Status

The respondents were asked of their marital status, from the findings 53.6% were single and 46.4% were married. Majority of the people used in the study were single.

Descriptive Statistics

Mobile banking adoption Effects on Performance of SMEs

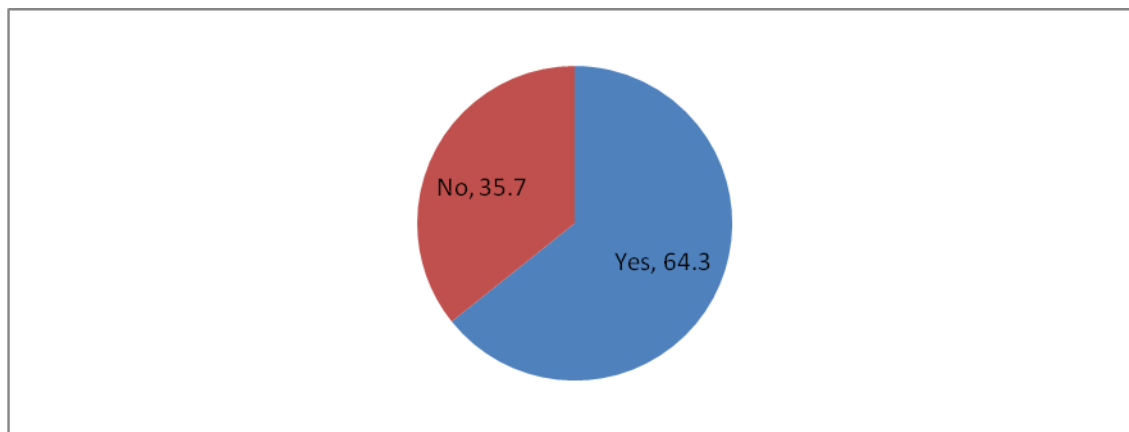


Figure 4.7: Mobile banking in SMEs

The respondents were asked to indicate whether their current organizations offer mobile banking. From the results 64.3% offer mobile banking while 35.7% indicated that their current organizations do not offer mobile banking. This shows that most current organizations offer mobile banking services.

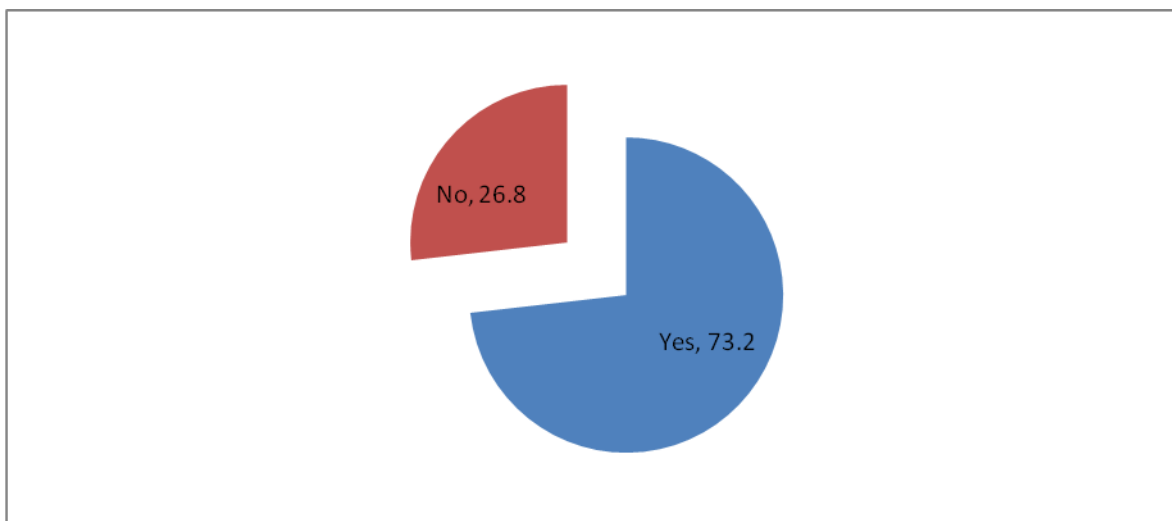


Figure 4.8: Use of m-banking

The respondents were asked if they use m-banking for their business. According to the results 73.2% used mobile banking for their business while 26.8% did not use. Those who indicated no said that they did not use mobile banking because it requires large finances to establish and also requires high maintenance and their banks are not fully established yet. This shows that most SMEs use mobile banking in their organizations.

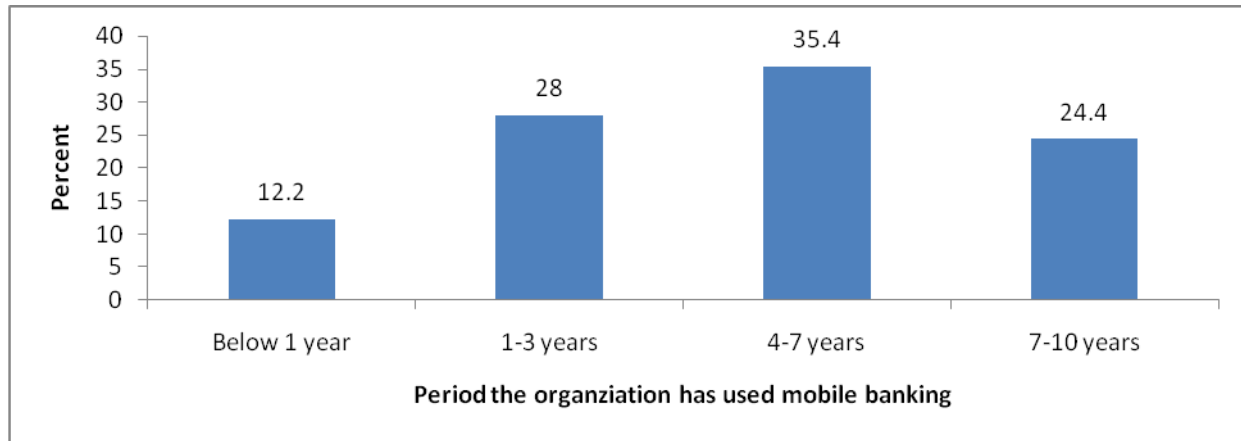


Figure 4.9: Period the SME shads used mobile banking

The respondents were asked the number of years they have used m-banking for their business. From the results, 35.4% have used mobile banking for a period between 4-7 years, 28% used mobile banking for a period between 1-3 years, 24.4% used mobile banking for a period between 7-10 years and 12.2% used mobile banking for below 1 years. This implies that most respondents have used mobile banking for a period between 4-7 years.

Table 4.3: Mobile services used by SMEs

Mobile banking Service									Mean	STD.	Dev.
	Used	Not Used	Very Rare	Rarely	Neutral	Often	Very Often				
Statement request	80.5	19.5	2	4	5	32	39	4.244	1.065		
Money Transfers	85.4	14.6	3	4	6	34	35	4.146	0.991		
Bank Borrowing(loan)	62.2	37.8	5	6	8	28	35	4.000	0.913		
Bill payments	89.0	11.0	4	5	7	37	29	4.000	0.904		
Account balance Enquiry	82.9	17.1	2	3	4	41	32	4.195	1.039		
Notification on account activities	76.8	23.2	3	6	6	39	28	4.012	0.920		
Transfer to Mobile money (mesa, airtel, equate)	92.7	7.3	1	2	4	54	21	4.122	1.141		

Purchase of airtime	95.1	4.9	2	3	5	56	16	3.988	1.148
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The respondents were asked to indicate the mobile services/s they have used and the degree to which you they have used them.

About mobile banking being used for statement request 80.5% of the respondents indicated that they used mobile banking for statement request and 14.6% indicated that they did not used statement request. This shows that most organizations use mobile banking for statement request.

About the use of mobile banking for bank transfers, 85.4% indicated that they used bank transfers and 14.6% indicated that they did not use mobile transfers. This shows that most SMEs use mobile banking for bank transfers.

On use of m-banking for bank borrowing (loan), 62.2% indicated that they used bank borrowing while 37.8% indicate that they did not use mobile banking for bank borrowing. This implies that most SMEs use mobile banking for bank borrowing.

On the use of mobile banking for bill payments, 89% used m-banking for bill payments while 11% did not use mobile banking for bill payments. This implies that most SMEs use mobile banking for bill payments.

About using mobile banking for account balance enquiry, 82.9% of the respondents indicated that they used the mobile account balance enquiry whereas 17.1% did not use mobile account balance enquiry. This shows that most SME uses mobile banking for account balance enquiry.

On the use of mobile banking for notification on account activities, 76.8% of the respondents indicated that they used mobile banking for notification on account activities while 23.2% did not use mobile banking for notification on account activities. This implies that most organizations use mobile banking for notification on account activities.

On the use of mobile banking for transfer to Mobile money (mesa, airtel, equate), 92.7 used m-banking for transfer to Mobile money while 7.3% did not use mobile banking for transfer to Mobile money. This implies that most SMEs use mobile banking to transfer Mobile money

About the use of mobile banking for purchase of airtime, 95.1% of the respondents indicated that they used mobile banking for purchase of airtime and 4.9% did not use mobile banking for purchase of airtime. This shows that most respondents use mobile banking to purchase of airtime.

About the degree of usage of mobile services, the respondents indicated that they often used statement requests indicated by a mean of 4.244, account balance Enquiry indicated by a mean of 4.195, money Transfers as shown by a mean of 4.146, bank Borrowing(loan) as shown by a mean of 4.000, bill payments as shown by a mean of 4.000, transfer to Mobile money (mesa, airtel, equate) as shown by a mean of 4.122, notification on account activities as shown by a mean of 4.012 and purchase of airtime as shown by a mean of 3.988.

The respondents were asked to indicate the factors which enabled them to continue to use m-banking services. Respondents indicated that ease of use, cost effectiveness, convenience, security of the service, accessibility and diversity has enabled them to continue to use mobile banking services. A study by Abdelghani and Aziz (2013) established that perceived ease of use, perceived usefulness, perceived self-efficacy and perceived credibility influenced customers' significantly attitude towards usage of mobile banking.

Table 4.4: Importance of mobile banking

	Frequency	Percent
Not important(1-3)	1	0.8
Less important(3-5)	2	2.1
Moderate(5)	7	8.1
Important(6-8)	32	39.0
Very important(8-10)	41	50.0
Total	82	100.0

The respondents were asked how important usage of m-banking was for their business on a scale of 1-10. From the results 50% indicated that mobile banking was very significant for their business, 39% of the respondents indicated that that mobile banking was important for their business, 8.1% of the respondents indicated that that mobile banking was moderate for their business, 2.1% of the respondents indicated that that mobile banking was less important for their business and 0.8% of the respondents indicated that that mobile banking was not important for their business. This implies that mobile banking is very important for their business. Bangers and Overberg (2008) found that m-banking has enabled financial transactions and settlement of funds. In addition, the findings show that m-banking has improved operations and competitiveness of SMEs.

Table 4.5: Influence of mobile banking on business performance

	Frequency	Percent
Below average	2	2.4
Average	12	14.6
Good	22	26.8
Very Good	27	32.9

Excellent	19	23.2
Total	82	100.0

The respondents were asked to rate their current business performance since they started using mobile banking. According to the results 32.9% indicated their business performed very good, 26.8% indicated that their business performance is good, 23.2% indicated that their business performance is excellent, 14.6% indicated that their business performance is average and 2.4% indicated that their business performance is below average. This shows that the SMEs business performance has been very good since they started using mobile banking.

Table 4.6: Mobile banking and business growth

	Frequency	Percent
Strongly Disagree	3	3.7
Disagree	5	6.1
Neutral	9	11.0
Agree	27	32.9
Strongly Agree	38	46.3
Total	82	100.0

The respondents were asked the degree to which mobile banking has made their business grow in terms of performance.

From the results 46.3% strongly agreed that mobile banking has made their business grow in terms of performance, 32.9% of the respondents agreed that mobile banking has made their business grow in terms of performance, 11% of the respondents were neutral that mobile banking has made their business grow in terms of performance, 6.1% of the respondents disagreed that banking has made their business grow in terms of performance and 3.7% strongly disagreed that banking has made their business grow in terms of performance. This shows that mobile banking has made businesses to grow in terms of performance.

Respondents were asked the ways that mobile banking usage has improved/helped your business. The respondents indicated that mobile banking has increased customer base due to easy mode of payments, more time to carry out other business activities, easy access to funds in the bank, increased business transactions, increased profits and increased business efficiency.

Inferential Statistics

Model Summary

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819 ^a	0.67	0.624	0.0025

Model summary analyzes variation of dependent types of variable because of transformations of independent types of variables. The study analyzed the disparity of bills payment, account balance enquiry, notifications on account activities, transfers to mobile money, airtime purchase and performance of SMEs. 0.624 was the value of the adjusted R square, implying 62.4% disparity of performance of SMEs, because of changes in bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase. The remaining 37.6% imply existence of other elements that lead to performance of SMEs that weren't explained in the research study. R which is correlation coefficient shows the association among the variables under study. The results indicated that there was a strong positive association among the variables under study as indicated by 0.819.

Analysis of Variance

Table 4.8: Analysis of variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19.958	5	3.992	26.799	.005 ^b
	Residual	15.788	106	0.149		
	Total	35.746	111			

To determine if the data used in the research study is relevant ANOVA is applied. From the ANOVA statistics, population parameters, had a significance level of 0.005 which indicates the data is suitable for drawing inference on the parameters since the p-value <0.005. The F calculated value was greater than F critical (26.799>2.300), this is an indication that bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchases significantly influence the performance of SMEs.

Coefficients

Table 4.9: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.127	0.155		7.271	0.001
Bills payment	0.544	0.096	0.432	5.667	0.004
Account Balance enquiry	0.528	0.094	0.456	5.617	0.004
Notifications on account activities	0.523	0.089	0.406	5.876	0.004
Transfers to mobile money	0.614	0.09	0.534	6.822	0.002
Airtime purchase	0.492	0.085	0.432	5.788	0.004

The regression equation was

$$Y = 1.127 + 0.544X_1 + 0.528 X_2 + 0.523 X_3 + 0.614X_4 + 0.492X_5$$

The equation reveals that holding that bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase constant the variables will significantly influence performance of SMEs as shown by constant = 1.127. According to the results in Table 4.9;

Bills Payment and Performance of SMEs

Bills Payment is significant to performance of SMEs as indicated by ($\beta = 0.544$, $P = 0.004$). This is an indication that bills payment had significant positive relationship with SME performance. This implies that increase in bills payments will cause increment in SME performance. Anural, Tragic and Raddi (2009) noted that clients are able to deposit and withdraw money to or from personal accounts by swapping money for electronic value at agents’ stores. Micro enterprises see settle men via MMT as an effortless means of delivering money to suppliers and business associates, a system that can be relied upon and its price is also reasonable, and can be used everywhere and at any given time. Mobile banking has provided an easy way of making transactions. An individual can pay bills through the m-banking. This has minimized the travelling costs. It is convenient and also affordable.

Account balance enquiry and performance of SMEs

Account balance is statistically significant to performance of SMEs indicated by ($\beta = 0.528$, $P = 0.004$). This is an indication that account balance enquiry had positive association with

performance of SMEs. This is an indication that a unit increase in account balance enquiry will cause increase in performance of SMEs. The findings concur with Guairá, (2007) who stated that the intention of mobile financial transactions is to better the accuracy of microfinance performance by use of mobile technology in making transactions fast, affordable and safe. An individual is now able to check the bank account balances without having to visit the bank. This is more convenient for the consumers hence the SMEs are able to serve their customers better.

Notifications on account activities and performance of SMEs

Notifications on account activities is significant to SME performance, indicated by ($\beta = 0.523$, $P = 0.004$). This is an indication that notifications on account activities have positive relationship with performance of SMEs. This indicates that an increase in notification on account activities will result to increase in performance of SMEs. Mite and Weil (2011) stated that mobile phones technology has eased SMEs ways of carrying out transactions. The reason behind it is because mobile phone transactions is time saving and provides a safe ways of dealing with money transfer. In addition it can be applied to reach clients and enable exchange of information and decision making. Nowadays every account activity is send through the mobile phone. Therefore the consumers are able to know their accounts activities. This improves the security of bank accounts and also increases the confidence of customers.

Transfers to mobile money and performance of SMEs

Transfers to mobile money is significant to performance of SMEs, indicated by ($\beta = 0.614$, $P = 0.002$). This indicates that transfers to mobile money had positive relationship with SME performance. This indicates that increase in transfers to mobile money will result to increase in performance of SMEs. Kama, Kerstin and Mukwonago(2003)indicated that transfer of funds that is cheaper and also its efficiency is high are significant service majority individuals' need, inclusive of those individuals who don't use banking services. By the fact that mobile money transfer is efficient and its prices are reasonable, it has become the choice of many individual, Micro enterprise operators are in the MSE Sector.

Airtime purchase and performance of SMEs

Airtime purchase is significant to SMEs performance, indicated by ($\beta = 0.492$, $P = 0.004$). This shows that airtime purchase had significant positive relationship with performance of SMEs. This indicates that an increment in airtime purchase caused positive rise in performance of SMEs. Lyman (2006) argued that M-banking clients have the ability to carry out transactions wherever they have network; the only thing they are required to do whenever they are making a deposit or withdrawing is to visit an agent. Consumers, vendors, and financial institutions can do mobile money transfer, either in their local denomination or mobile money, with ease and at lower prices. Because of affordability, safety and convenience in transferring money, and reduced charges related to savings and lending, consumers are getting to know its advantages.

Moog (2010) studied the elements that contribute to success usage of mobile payments by micro-business owners. Primary results indicates that convenience, accessibility, cost, support and security factors are associated to the behavioural reasons to make usage of mobile payment

services by the micro businesses to improve their development and triumph. It was also established that entrepreneurship is promoted by mobile money promotes through provision of basis of developing new services and improving the achievements of small enterprises. Bangers and Overberg (2008) investigated on the role played by m-banking and its ability to avail the important banking services to many people in Sub-Saharan Africa primary methods and secondary sources were used to obtain data. From the results, m-banking has enabled financial transactions and settling of money. Furthermore, the findings showed that through m-banking activities and competitiveness of SMEs have been improved. Donner and Escobar (2010) did a study on the usage of mobile phones by SMEs in countries that are developing. Questionnaires were the method used to gather information from 14 research studies that had studied the use of mobile by SMEs. From the results, the usage of mobile phones have assisted SMEs to be more productive and to better the levels of sales thus improvement of their performance financially.

The findings indicate that adoption of m-banking has a positive impact on performance of organizations. Therefore organizations should introduce mobile banking in their organization since it provides an easy and fast way of conducting the business. It also improves the convenience of customers because they can easily access the information they want wherever they are.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter reviews the summary of findings, conclusions and recommendations for the study. The study's objectives were to establish the extent to which small and medium enterprises have adopted mobile banking in Nairobi County, to establish the expense/extent to which SMEs utilize the different services offered by the mobile banking and to establish the relationship between use of m-banking services and SME performance.

Summary of Findings

SME sand Adopted Mobile Banking in Nairobi County

The first objective of the study was to determine expense to which SMEs have adopted m-banking in Nairobi County. The findings revealed that SMEs have adopted m-banking to a great extent; this is because most of the organizations offer m-banking services to their clients. The SMEs also use m-banking in their organizations which helps in simplifying their work and providing better services to the clients. The findings also show that the SMEs have used m-banking services more than 4 years now. This indicates that m-banking services are highly used in the SMEs.

SMEs and Different Services Offered By the Mobile Banking

The 2nd objective of the study was to determine the expanse to which SMEs utilize the different services offered by the m-banking. The study found that most organizations use m-banking for statement request, SMEs use m-banking for bank transfers, they use m-banking for bank borrowing, they use m-banking for bill payments, SMEs use m-banking for account balance enquiry, SMEs use mobile banking for notification on account activities, SMEs use mobile banking for transfer Mobile money and to purchase of airtime. The study also revealed that Ease of use, cost effectiveness, convenience, security of the service, accessibility and diversity has enabled them to continue to use mobile banking services, mobile banking is very important for bank business.

Mobile Banking Services and SME Performance

The 3rd objective of the study was to examine the relationship between use of m-banking services and SME performance. The study revealed that SMEs business performance has been very good since they started using mobile banking, mobile banking has made businesses to grow in terms of performance and mobile banking has increased customer base due to easy mode of payments, more time to carry out other business activities, easy access to funds in the bank, increased business transactions, increased profits and increased business efficiency. The study further found that bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase significantly influence the performance of SMEs. Bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase had a significant positive relationship with the performance of SMEs.

Conclusions

The study found that ease of use, cost effectiveness, convenience; security of the service, accessibility and diversity has made it possible for SMEs to continually use m-banking services. The study also revealed that mobile banking has increased customer base due to easy mode of payments, more time to carry out other business activities, easy access to funds in the bank, increased business transactions, increased profits and increased business efficiency.

The study also established that bills payment, account balance enquiry, notifications on account activities, transfers to mobile money and airtime purchase significantly influence performance of SMEs. This shows that mobile banking adoption had a significant relationship with SME performance. This implies that an increase in m-banking adoption will lead to increase in performance of SMEs. Therefore, the study made a conclusion that m-banking adoption impacted performance of SMEs in Nairobi County positively.

Recommendations

The study recommends SMEs to adopt mobile banking services in their organizations. In this way the organization will be adopting the changing technologies so that to remain competitive. Mobile banking is also important because it helps the organization to better serve their customer

better. It is a more convenient way of serving customers since it allows customers get banking services at their own convenience.

Suggested Areas for Further Studies

The study recommends other studies to be performed on effect of mobile banking in other institutions.

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APPENDICES

Appendix I: Introduction

From: **Joan Mocher**

To: Respondent

Dear Respondent,

RE: Questionnaire

I am a student at Catholic University of Eastern Africa pursuing Masters of Business Administration. I am carrying out a study on **EFFECT OF MOBILE BANKING ADOPTION ON PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI COUNTY**.

You are kindly requested to complete the attached questionnaire so as to enable me accomplish the study. Please, note that all the information given shall be treated purely and used for academic purposes and shall be treated as confidential. Thank you for your cooperation and taking your time to complete the questionnaire.

Yours sincerely,

Joan Mocher

Student CUEA, Kenya

Appendix II: Questionnaire

Section A: General Information

1. Please indicate your gender.
Male [] Female []
2. Indicate your age.
Below 20 years []
21-30 years []
31-40 years []
41- 50 years []
Over 50 years []
3. How long have you been in this business?
Below 2 years [] 2-6 years [] 7-10 years [] Above 10 years []
4. How many employees does your business have?
1-10 [] 11-30 [] 31-50 [] 51-100 [] Above 100 []
5. What is your position in your firm?
6. How long have you worked in the current position?
Below 5 years [] 5-10 years [] 10-15 years [] 15-20 years []
7. Please indicate your highest level of education:
Doctorate [] Postgraduate [] Graduate [] Diploma [] Others []
8. Please indicate your marital status.
Married [] Single []

Section B: Effect of mobile banking adoption on Performance of SMEs

9. In what bank do you carry out your businesses' banking?
.....
10. Does your current bank offer mobile banking?
Yes []

No

I do not know

11. Do you use mobile banking for your business?

Yes No

(If Yes, please continue with the questionnaire)

(If No, please indicate below the reason why you do not use mobile banking)

.....

12. How many years have you used mobile banking for your business?

Below 1year 1-3 years 4-7 years 7-10 years

13. Please tick in the below spaces the mobile services/s you have used and the degree to which you have used them.

Mobile banking Service	Used	Not Used	Very Rare	Rarely	Neutral	Often	Very Often
Statement request							
Money Transfers							
Bank Borrowing(loan)							
Bill payments							
Account balance Enquiry							
Notification on account activities							
Transfer to Mobile money (mesa, airtel, equate)							
Purchase of airtime							

14. Which of the below factors have enabled you continue to use mobile banking services?

(Tick on all appropriate answers)

Ease of use []

Cost effectiveness []

Convenience []

Security of the service []

Accessibility []

Diversity []

Others.....

15. How important do you consider the use of mobile banking for your business on a scale of 1-10
Not Important 1 [] 2 [] 3 [] 4 [] 5 [] 6 [] 7 [] 8 [] 9 [] 10 [] Very Important

16. How would you rate your current business performance since you started using mobile banking?
Below average [] Average [] Good [] Very Good [] Excellent []

17. Mobile banking has made your business grow in terms of performance.
Strongly Disagree [] Disagree [] Neutral [] Agree [] Strongly Agree []

18. In what ways has the use of mobile banking improved/helped your business?
(Tick all appropriate answers)

- a) Increased customer base due to easy mode of payments? []
- b) More time to carry out other business activities? []
- c) Easy access to funds in the bank? []
- d) Increased business transactions []
- e) Increased profits []
- f) Increased business efficiency []

Others.....

19. SME Performance
Indicate your level of agreement with the following statements about SMEs performance.
Scale, 1- Highly disagree, 2-disagree, 3-moderate, 4- agree, 5- highly agree.

Statement	5	4	3	2	1
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Use of mobile services have improved service delivery					
Use of mobile services have assisted in increasing customer base					
Use of mobile services has facilitated effectiveness and efficiency					
Use of mobile banking has increased the organization transactions					
The profits of the organization have increased since we started using mobile services					

Thank you for your participation

Submission of Project							
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