INFLUENCE OF MOBILE MONEY SERVICES ON THE GROWTH OF SME IN NAKURU TOWN KENYA

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DECLARATION

Declaration by Student

This research project is my original work and it has not been presented for a degree in any other university.

Signature **…………………………….** Date………………………

Mary Wangui Mararo

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Approval by the Supervisor

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

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DEDICATION

Special dedication goes to God Almighty my creator, my strong pillar, my source of inspiration, knowledge, wisdom and understanding. He has been the source of my strength and comfort throughout this masters program. I also dedicate this work to my Mum and Dad who have encouraged me all the way and whose encouragement has made sure that I give it all it takes to finish my course.

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ABSTRACT

Technology is consistently cited as one of the greatest challenges faced by small and medium enterprises (SMEs) around the world. It is widely recognized that technology is invaluable for improving efficiency, accuracy, increasing outreach and reducing costs. However, many SMEs lack sufficient funds to invest in suitable backend technologies, or operate in regions where access to critical infrastructure such as the Internet remains scarce. One of the recently emerging technologies in the SMEs industry is the use of mobile phone technology for both banking and remittance. This study sought to examine the influence of mobile money services on the growth of SMEs in Nakuru town Kenya. Therefore the study sought to examine the influence of mobile payments, mobile finance and mobile banking on the growth of SMEs in Nakuru town Kenya. Descriptive survey research design was used in the study. The target population included all the SMEs in Nakuru town Kenya. A sample of 100 SME entrepreneurs was taken to be the respondents representing the other SMEs in town. Purposive sampling technique used to pick out the SMEs employing simple random sampling. Questionnaires were used for data collection constructed on a five point Likert scale containing close ended questions. The questionnaire pilot tested on ten percent of the sample population to enable the researcher evaluates the reliability and validity of the questionnaire. The collected data filtered, organized and corded before data analysis. Statistical Package for Social Sciences (SPSS) version 24 software used for data analysis. Analysis was done in form of descriptive and inferential statistics. Descriptive statistics included the means, standard deviations, frequencies and percentages while inferential statistics included coefficient of determination and analysis of variance. Findings were presented in statistical tables accompanied by relevant discussions. The study established that mobile payments, mobile finance and mobile banking had positive significant relationships with the growth of SMEs. Further regression analysis demonstrated that the three variables had significant influence on the growth of SMEs in Nakuru CBD. Multiple regression analysis indicated that the three independent variables taken together were significant in explaining the variation in growth of SMEs in Nakuru CBD. The study concluded that mobile money services have significant influence on the growth of SMEs in Nakuru CBD. Therefore the researcher recommended that mobile money service providers should encourage SMEs traders to adopt the use of mobile money services through enhanced advertisement.

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ABBREVIATIONS AND ACRONYMS

ANOVA: Analysis of Variance

B2B: Business to Business

B2C: Business to customer

BI: Behavioural Intension

C2B: Customer to Business

CCK: Communication Commission of Kenya

EU: European Union

GDP: Gross Domestic Product

ICT: Information Communication Technology

IT: Information Technology

MMS: Mobile Money Services

MMTS: Mobile Money Transfer Service

MNOs: Mobile Network Operators

P2P: Person to person

PDA: Personal Digital Assistant

PEU: Perceived Ease of Use

PIN: Personal Identification Number

SMEs: Small and Medium Enterprises

TAM: Technology Acceptance Model

TRA: Theory of Reasoned Action

USA: United States of America

USD: United States Dollar

OPERATIONAL DEFINITION OF TERMS

Mobile Banking: It is the use of a mobile telecommunications network as a platform to perform traditional banking activities such as performing balance checks, transferring money between accounts and making payments (Paul & Henry 2013).

Mobile Money: Mobile money refers to service whereby customers use their mobile devices to send and receive or transfer money electronically (Senso & Venkatakrishana, 2013).

Mobile Payment: Mobile payment is the payment of products and services. This can be C2B money transfer, from a customer to a business as when paying utility bills and for purchases from a business, or B2C money transfer, where a business disburses funds to customers for instance when a microfinance institution disburses loans to customers (Paul & Henry 2013).

Perceived Ease of Use (PEU): Is defined as the degree to which a person believes that using a particular system would need little effort or no effort in using technology (Eramus et al., 2015).

Perceived Usefulness: Refers to the degree to which a person believes that using a particular system would enhance his or her performance (Erasmus et al., 2015).

SMEs: In the United States and European Union (EU) countries, SMEs are enterprises with employees under 500 while in developing countries any enterprise employing below 100 employees would constitute an SME (UNCTAD, 2001).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Technology is consistently cited as one of the greatest challenges faced by small and medium enterprises (SMEs) around the world. It is widely recognized that technology is invaluable for improving efficiency, accuracy, increasing outreach and reducing costs. However, many SMEs lack sufficient funds to invest in suitable backend technologies, or operate in regions where access to critical infrastructure such as the Internet remains scarce. Still others sink funds into poor technology investments, or simply choose not to invest, limiting their ability to grow and compete (Rosenberg, 2009).

One of the recently emerging technologies in the microfinance industry is the use of mobile phone technology for both banking and remittance. According to Gartner (2012) and ITU (2014), the global volume of mobile transactions is expected to grow from USD 37.4 billion in 2011 to over USD 1.13 trillion in 2014, while the number of users of mobile money services worldwide will surpass 141 million in 2014, and the number of mobile phones will be 7 billion, greater than the total population in the globe. This represents a mere 2.1% of all mobile users worldwide. This implies that there is still much room for growth especially in regions where there is lack of alternative payment methods. By 2012, there were 25 mobile money services operated by different Mobile Network Operators (MNOs) across Africa (GSMA, 2012). Among these, 15 are in East Africa (GSMA, 2012). Among the five East African countries, Kenya has the leading number of users of mobile money services with 17,800,000 registered users, which represents 71.3% of the total number of mobile phone users in the country. Tanzania is the second with

9,200,000 users of mobile money which represents 43.4% of the total number of mobile phone subscribers in the country (GSMA, 2012). Uganda has the third largest number of mobile money users in the East African region with 2,100,000 users representing 8.1% of the total number of mobile phone subscribers. Rwanda and Burundi have 309,127 and 29,000 users of mobile money services representing 8.3% and 2.7% of the total number of mobile phone users in those countries respectively (GSMA, 2012).

Mobile money services can be broadly categorised into three groups: m-transfers, m-payments and m-financial services. M-transfers involve money transfer from one user to another, normally without any accompanying exchange of goods or services (Jenkins, 2008). These are also referred to as person-to-person (P2P) transfers and may be domestic or international (Jenkins, 2008). M-payments involve money exchange between two users with an accompanying exchange of goods or services. M-financial services are mobile money services in which mobile money may be linked to a bank account to provide the user with a whole range of transactions that they would access at a bank branch. Users access financial-related services like insurance and micro-finance among others via their mobile phones (Jenkins, 2008).

Ivatury and Mas (2008) predicted that poor people are more likely to use mobile phones to undertake financial transactions than rich people. People in less developed countries have very few options, if any, for transferring money and accessing banking services. Further, in the developing world there is less formal banking infrastructure few bank branches, automated teller machines and low internet penetration. In the USA and EU countries, it is estimated that SMEs contribute over 60 percent in employment, 40-60 percent to Gross Domestic Product (GDP) and 30-60 percent to exports. The Asian Tigers such as India, Indonesia, China, Malaysia, Japan, and

South Korea also have thriving SMEs sectors contributing between 70-90 percent in employment and an estimated 40 percent contribution to their respective GDPs. In Africa, economic powerhouses such as South Africa, Egypt, Nigeria and Kenya, the SME sector is estimated to contribute over 70 percent in employment and 30-40 percent contribution to GDP but contribute less than four percent to export earnings (United Nations, 2005).

Emergence of mobile money services in the financial market is playing critical role in economic development. Porteous (2006) asserts that the success of the new technology requires enabling environment as a working mobile money ecosystem requires a concerted effort from many players in the market (Jenkins, 2008). In Africa, the adoption rate of mobile money is high. Initially, focus on determinants to use mobile money aroused concerned on the social and economic variables (Litondo & Ntale, 2013). More interest on the economic impact on performance triggering a number of studies conducted on microenterprises indicating positive benefits for those who use it to carry business (Kwakwa 2012; Donner 2007).

The growth of mobile money services is a blessing to microenterprises, which otherwise could not be served well by commercial banks. It is possible for banked individuals to access their accounts through their phones. Mobile money services are widely being expanded to reach the rural areas. The ideal it provides has also enhanced the use of the platform to carry out various transactions that can be offered through banks or registered agents. The person who makes payment and the person who receives the payment are linked together with the existing framework. Mobile phones enable both communication and financial transaction processing. The new technology does not only cover local transaction, but also international transactions (Bangens & Soderberg, 2011).

Small and medium enterprises in Kenya have adopted the use of the mobile payments as a way of transacting their business because of the relative affordability of mobile phones and the mobile banking services they offer (Mbogo, 2010). The vision 2030 proposes intensified application of science, technology and innovation to raise productivity and efficiency across its three pillars (economic, social and political) on which it is based. Mobile Money Transfer Service (MMTS) is one of the innovations in the ICT sector that may enhance the efficiency of businesses if properly used. Following the launch of mobile money transfer service M-Pesa by Safaricom, in March 2007, there quick adoption of the service by many Kenyans through subscription to M-Pesa. The growth of M-Pesa users has been rapid over the years, within eight months of its launch, M-pesa had 900, 000 subscribers (Omwansa, 2009) and by September 2009, over 8.5 million Kenyans were registered users (Safaricom, 2009).

The small and micro enterprises (SMEs) play an important role in the Kenyan Economy. According to the Economic Survey (2006), the sector contributed over 50 percent of new jobs created in the year 2005. Despite their significance, past statistics indicate that three out of five businesses fail within the first few months of operation (Kenya National Bureau of Statistics, 2007). Among the inexhaustible list of factors that could enhance development of SMEs is adequate finances and good financial management among the SMEs. Finance and financial related services are an important prerequisite in initiation, development and growth of business enterprises.

According to Donner (2005), there have been relatively few studies focusing directly on the way mobile phones are used in enhancing productivity among the users in the developing world. Some business also lacks the awareness regarding the potentials that exist in the use of mobile

phones and ICTs (Adeya 2003). Mobile phones provide technological services that reduce costs; increase income and increases reach ability and mobility. They can help to extend social and business networks and they clearly substitute for journeys and, for brokers, traders and other business intermediaries (Donner 2005, Hughes & Lonie 2007).

Prior studies carried out elsewhere confirm the positive impact of mobile money transfer service on micro enterprises. Most of these studies were conducted in other countries and in Kenya, studies have been mainly in Nairobi – the capital city, thus they may not reflect the impact on the success and growth of different business environments and in particular the SMEs in Nakuru Town. In fact, it has been observed that, studies investigating the impact of mobile telephones on the performance of firms are very limited, particularly in developing countries (Donner & Escobari, 2010). In light of the foregoing, this study sought to fill this gap by establishing the influence of mobile money services on the growth of SMEs in Nakuru town Kenya.

1.2 Statement of the Problem

The majority of the SMEs in Kenya operate in the informal sector with most of them being sole proprietorships or family businesses usually employing less than five persons. They are involved in small semi-organized and sometimes unregulated activities that are mainly concentrated in urban as well as in some parts of the rural areas. The business functions are usually conducted by the owner/manager in market stalls, open-yards, and residential houses and on undeveloped open grounds. Many of these micro business operators do not have bank accounts while those who do, find the bank accounts cumbersome to operate as they have to leave their businesses unattended in order to conduct transactions in a bank. As a result the mobile money services have become popular both for the unbanked and the banked. The adoption of the mobile money services have

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been accelerated by the relative affordability of mobile phones and the mobile banking services they offer. The SMEs operators are able to transact payments directly with their customers and suppliers through a mobile phone in the palm of their hands without necessarily going through a bank and without having to leave their business premises. Several studies have been done in regard to mobile money services that have revealed the potential of mobile network technologies for financial transaction purposes (Pousttchi, 2003; Taga & Karlson, 2004). Most of these studies were conducted in developed countries and thus may not reflect the impact on the success and growth of different business environments and in particular the SMEs in a developing country like Kenya. There exists a need therefore, for a substantive research on the impact of mobile money services on the success and growth of SMEs in Kenya. Therefore this study sought to establish the influence of mobile money services on the growth of SMEs in Nakuru town Kenya.

1.3 Objectives of the Study

The study was guided by a general objective as well as specific objectives as presented hereafter.

1.3.1 General Objective of the Study

The general objective of the study was to examine the influence of mobile money services on the growth of small and medium enterprises in Nakuru, Kenya.

1.3.2 Specific Objectives of the Study

i. To examine the influence of mobile payment on the growth of SMEs in Nakuru town, Kenya.

ii. To establish the influence of mobile finance on the growth of SMEs in Nakuru town, Kenya.

iii.   To determine the influence of mobile banking on the growth of SMEs in Nakuru town, Kenya.

1.4 Hypothesis of the Study

i.   Mobile payments have no statistically significant influence on the growth of SMEs in Nakuru town, Kenya.

ii.   Mobile finance has no statistically significant influence on the growth of SMEs in Nakuru town, Kenya.

iii. Mobile banking has no statistically significant influence on the growth of SMEs in Nakuru town, Kenya.

1.5 Justification of the Study

The study seeks to determine the role the mobile money services play in the growth and development of SMEs in Kenya. So far there has been no clear insight into the role that mobile payments play in the development of SMEs. As such this study will help technology providers, government agencies and development partners to understand the contribution of mobile money service technology on the growth of SMEs. This will help them provide better technical support and advice to their clients as well as providing new innovations. The government will further provide the required regulations and other interventions that are necessary to ensure smooth operations for all concerned parties. Further the study will assist the SMEs operators to fully understand the entrepreneurial impact of this technology on their business so as to cope with the increasing developments in the mobile services on one hand, and the challenges of the micro business operating environment, on the other hand. The study will also be useful to future scholars who may use findings of this study as the basis for their studies.

1.6 Scope of the study

The study was limited to the influence of mobile money services on the growth of SMEs in Nakuru town Kenya. Nakuru was considered to be appropriate for this study since it is ranked highly among the fastest economically growing town in Kenya. In addition, the town has a big number of SMEs that have provided the much needed employment to the majority of residents in the area. Further, there are many mobile money services agents in town signifying that this is a common service demanded by a majority of residents in the area thus providing a fertile ground for this study. The study was conducted in month of March to May, 2017.

1.7 Limitation of the study

Some respondents were not willing to respond to the questionnaires fearing that the information could be used for other purposes. Some respondents may also have given false responses to the questions asked. It was very hard to convince the respondents of the intention of my research in a bid to collect information from them. However, with the assistance of the introduction letter from the university the researcher was given the opportunity to undertake the research. The researcher also sought to assure the respondents that the information collected would not be used for any other purposes apart from for academic purpose and that the information would be treated with utmost confidentiality.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The aim of this study is to examine the influence of mobile money services on the growth of SMEs in Nakuru town. In this chapter, the researcher reviews the work of other authors on the subject of mobile money services and the growth of SMEs. The chapter is organized into various sections namely; theoretical review, empirical review, conceptual framework, critique of existing literature, summary of literature and research gap.

2.2 Theoretical Review

This study was anchored on entrepreneurship and innovation theory and diffusion of innovation theory as discussed in this section.

2.2.1 Entrepreneurship and innovation theory

The entrepreneurship and innovation theory introduced and developed by Joseph Schumpeter (1838-1950). The original approach focused on the role of innovation on entrepreneurship, economy and social change. Schumpeter argued that, the economy through static lenses focused on the distribution of given resources across different roads. Schumpeter's view of economic development is seen as a process of qualitative change driven by innovation taking place in historical time. Giving examples of innovation, Schumpeter mentioned new products, new methods of production, new sources of supply, exploitation of new markets, and new ways to organize business.

He defined innovation as a new combination of existing resources. Through these combinations, he labeled the entrepreneurial function. For successful innovations, Schumpeter noted the

important role played by entrepreneurs. That is, the prevalence of inertia or resistance to new ways at all levels of society that entrepreneurs had to fight in order to succeed in their aims. Rafinejad, (2007) describes the Schumpeter's theory as the one that emphasizes innovation-ignoring risk taking and organizing abilities of an entrepreneur.

The theory of entrepreneurship is important to this study as it describes the relationship between innovation and entrepreneurship. Innovations as seen in the theory bring about economic and social change. On the other hand, innovation has presented as an opportunity through which entrepreneurs can create new products, new methods of production, new sources of supply, exploitation of new markets and new ways to organize business. In the study context, mobile money services presents an opportunity for SMEs to have new ways of doing business, which are likely to bring economic and social changes within the customer fraternity. This is reflected in the way the SMEs use the services to deal with their customers and suppliers to facilitate their business.

2.2.2 Technology Acceptance Model (TAM)

Technology acceptance Model was developed by Fred David in 1989. The model is rooted in the Theory of Reasoned Action (TRA). TAM model is considered to be the most influential and commonly employed theory describing an individual acceptance information system (Lee et al., 2003). Originally, the model was made with four variables; perceived usefulness, perceived ease to use, attitude toward using and actual system uses. Later two variables where added in the model which was external variables and behavioural intention (Eramus et al., 2015). Also the theory suggests that perceived usefulness and perceived ease of use are affected by external variables (Alharbi and Drew, 2014).

According to the model, perceived usefulness is a key reason to technology adoption, external variables attitude towards using actual use perceived usefulness perceived ease of use behavioural intention the expected benefits to SMEs include lower administration cost, increased internal efficiency, enhanced relationship with business partners, improved competitiveness, improved quality of information, access to bank account, fund transfer as well as bill payment (Riyadh et al., 2009). The model hypothesised that the attitude of ease of use is the major determinant of whether the user will use or reject the system. The user believes that the system which is easier to use is more useful to his or her job performance. Perceived ease of use determines both perceived usefulness and attitude towards using the system. According to TAM both perceived of usefulness and perceived ease of use influences the users' attitude toward a mobile money services. Hence useful and ease to use then develop a positive attitude toward services (Fethena et al., 2015). In this study usefulness of mobile money services had influence on the growth of SMEs.

Venkatesh and Davis (2000) proposed addition variable to the original TAM model, they considered other factors referred to as external variables that might influence the beliefs of person toward a system, such variable are system characteristics, user training, user participation in design and the nature of the implementation process (Chullur, 2009).TAM was developed to explain and predict particular IT usage. The model has been used by many researchers in studying adoption and diffusion of various information system technologies (Riyadh et al., 2009). The TAM indicate that perceived usefulness and perceived ease of use predict attitude toward using mobile money services, perceived usefulness also influence the users behaviour intention (BI) using mobile money services, intention to use also determine the actual of using Mobile money services.

2.3 Empirical Review

The rapid spread of the mobile phone usage in Kenya means that the number of mobile users exceeds by far the number of banked people. Mobile phones offer easy communication and the current M-Pesa facilities have reduced the average transaction costs for the consumer (Vaughn, 2009). The Annual Report 2008/2009 show that person to person transactions stood at KShs. 120.61 billion for the same year against 14.74 billion for the year 2007/2008. The total cumulative person to person transactions stood at KShs. 135.38 billion as at 31st March 2009 since inception of the mobile payment service. This indicates that M-Pesa mobile payment is reaching the unbanked (Vaughn, 2009). Omwansa (2009) argues that the benefits associated with M-Pesa are so enormous that those who try to place regulatory pressure on it might feel guilty if they appear to frustrate it.

Many SMEs are adopting the use of mobile money services to execute financial transactions. Wamuyu, et.al., (2011) reported a positive significant effect on SMEs' financial performance and mobile money services. However, Ngaruiya et al. (2014) found an insignificant effect of mobile money on sales turnover pointing. The effect of mobile money services remains inconclusive and unaccounted fully. The current study therefore aims at adding to the existing literature by hypothesizing that, mobile finance, mobile banking, and mobile payments do not significantly influence the growth of SMEs in Nakuru Town.

2.3.1 Mobile Payments and the Growth of SMEs

The extent to which the mobile payment usage would impact on performance depends largely on whether there is an enabling environment (Porteous, 2006). M-Pesa has widespread access and requires an enabling environment to enhance the success of its consumers. The micro businesses

are spread throughout the country with huge clusters in the market areas and near shopping centers. This enables them to easily access the M-Pesa service providers for registration and to make cash deposits into their accounts. The mobile payment providers' agents are well distributed and easily accessible to the micro business owners for support of their services in Kenya.

Literature shows that mobile payment system among SME coverage in Kenya is below accepted levels unlike other sectors (CCK, 2013). Data from CCK indicate very discouraging statistics of Lipa Na Mpesa, Bebapay, Mobicash, among others (CCK, 2013). The uptake is low; it is far below other sectors such as large corporate and individual level. It is also indicative that Technology coverage is also low in SME, while remarkable strides have been made in adopting technology in sectors like education and banking; little has been realized in the SME in Kenya (Makau 2010).

In July 2013 Safaricom Launched a product dubbed Lipa Na Mpesa to specifically address C2B payments and meant to be a big boost for micro-entrepreneurs. However according to Kopo Kopo Inc. an American company contracted by Safaricom to sign up and manage entrepreneurs on *Lipa na M-pesa* payment system, they report that out of 12,500 entrepreneurs they have signed up, only about 3,000 are actively using the service (Wills, 2014). Zollmann (2014) concludes that until payments solutions solve real problems for the users themselves, we are unlikely to see wide scale usage of these payments mechanisms, and the benefits of mobile payments may not actually accrue to all players in the economy.

Use of mobile money payments provides economies of scale in procuring of materials and reduces the supply chain (Donner & Escobari, 2010). Wanyonyi & Bwisa (2013) determined the

influence of mobile money transfer services on the performance of SMEs. They found that SMEs use mobile money transfer for: B2B (business to business) transfer when making purchases from suppliers and C2B (customer to the business) transfers when customers buy from the business and for debt collection for credit sales contributes to improved performance of the micro enterprises. However, Wamuyu, et al. (2011) reported a limited use of mobile money transfer for B2B and B2C transactions as opposed to C2C and C2B e-commerce transactions though mobile money transfer, and that mobile internet services have a positive significant effect on the performance of SME.

Mbogo (2010) has established the success factors attributable to the use of mobile payments by Micro-business operators and revealed that the convenience of the money transfer technology plus its accessibility, cost, support and security factors relate to the behavioural intention to use and actual usage of the mobile payment services by the micro businesses to enhance their success and growth.

According to a study published in the Financial Sector Deepening Kenya (2009), when users of M-Pesa were asked to compare the service with their previous national money transfer service over 95% of users found that M-Pesa faster, more convenient, safer and cheaper. At the time of survey Safaricom offered service to 4,420,279 users through 4,781 MPesa agents. The ease of access compared very well with 887 bank branches and 1,424 ATMs countrywide. Given M-Pesa versus these other remittance services the strong growth of user numbers for M-Pesa shows that the introduction of M-Pesa has increased Kenya's payment infrastructure. With all these developments, Lipa na M-Pesa which is a product of M-Pesa is still at its infancy as can be deduced from the feedback of the respondents.

Njenga (2009) states that although the mobile phone balances may seem low, the fact that there are balances proves that there is storage which can be perceived as acceptance of deposits. This is a significant indication of the high value placed on the convenience associated with the use of the mobile payment services. Omwansa (2009) states that a lost or stolen mobile phone does not mean catastrophe as no one can access an M-Pesa account without a correct personal identification number (PIN). He further explains that in a country where majority of people have no bank accounts, M-Pesa provides both convenience and safety. People walk around with their virtual money knowing they can withdraw cash any time at a minimal fee.

2.3.2 Mobile finance and Growth of SMEs

Mobile finance services assist microenterprises to pay for their insurance premiums, accumulate assets and obtain credit. Govil et al. (2014) have analyzed the role of mobile finance and found that it enhances economic growth of businesses. It speeds up the flow of goods and services create conducive atmosphere for investment and above all security. Onyango et al. (2014) examined the impact of adoption and use of mobile phone technology on the performance of micro and small enterprises, and indicated a positive relationship between mobile usage and the performance of micro and small enterprises. Similarly, Kakwa (2012) report that there is an influence of adoption and use of mobile phone technology among SME's through faster response to customers' needs, increased internal efficiency, access to new markets and lower operational costs.

Mobile finance assists SMEs to save and get credit, which enable them to communicate with their clients. The improvement in communication enhances their business transactions. They can reduce unnecessary cost of meeting their clients and cost of debt collection through

communication. The link between them and their clients improves their sales over time. SMEs can access credit through mobile finance that helps them achieve short-term needs of the business. Donner (2007) has observed in Rwanda that SME benefit because of using mobile money in business operations. Kakwa (2012) made similar observation in Ghana that mobile finance improves customer services not excluding marketing. Govil et al. (2014) findings showed that businesses using mobile finance such as savings, insurance and credit experiences improved economic progress in their activities.

Micro enterprise operators in Kenya have adopted the use of the mobile payments as a way of transacting their business because of the relative affordability of mobile phones and the mobile banking services they offer (Mbogo, 2010). "Mobile money" is money that can be accessed and used via mobile phone (Jenkins, 2008). Mobile money can be used to settle a variety of transactions conveniently and it transforms the mobile phone into a mobile wallet. To access Mobile Money Transfer Services (MMTS), a customer must first register at an authorized mobile money transfer retail outlet of a mobile network operator offering MMTS. The customer is then assigned an individual electronic money account that is linked to his phone number and accessible through a SIM card-resident application on the mobile phone.

The study by Saleem and Rashid (2011) in Pakistan examined the relationship between customer satisfaction and mobile banking in Pakistan. Questionnaires were given to 230 bank employees and 230 bank customers. Findings revealed that customers concerns about security, authenticity and reliability of technology were significant. Results imply that firms should focus upon IT application, innovative services, security, and customer trust and risk because they are key indicators of technology adaptation.

2.3.3 Mobile Banking and Growth of SMEs

According to Nasikye (2009), Mobile banking (m-banking) involves the use of a mobile phone or another mobile device to undertake financial transaction linked to a client account. According to (Owen, 2008) m-banking refers to provision and availing of banking and financial service with the help of mobile telecommunication device. Services include performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone which is most used in developing countries or Personal Digital Assistant (PDA).

Nyaga (2013) examined the impact of mobile money services on the performance of SMEs, and found out that use of mobile money has made a significant contribution to the SME sector. First, majority of traders relies on it as opposed to the formal banking sector for their day-to-day transactions. Secondly, SME operators have a clear understanding of the basic functions of mobile money services. Banking services assist both customers and businesses to settle their transactions. As opposed to traditional banking services, mobile banking is a new innovation, where banking services done through a network referred to as branchless banking.

Microenterprises obtain both transactional and informational services through this new technology. Information relating to account balance and notifications on transactions is also accessible easily. In addition, processing of loan proceeds, withdrawals, and depositing of funds are also doable (Ishengoma, 2011). Traditional banking exposes SMEs to risk associated with cash transactions but use of mobile banking reduces such risk, save them time and reduce cost of transport. Since the services are accessible within the premise, SMEs can dedicate their time to manage the business well thus reducing operational cost (Otiso et al., 2013; Jagun, et al., 2008).

Mobile banking services supplement traditional banking services and the frequency of use is not limited by time and locality. The services involve small, frequent transactions, which are convenient to use mobile banking services.

Otiso et al. (2013) established that the highest percentage of SME uses mobile banking as opposed to traditional banking. Further, SMEs obtain both information and transactional services through their mobile phones. Mobile banking assists SMEs to access banking information about their bank account inquiries and mini statement. Mobile banking also saves them time on queuing and visiting the bank premise thus concentrating on their businesses. Micro business operators can make withdrawals within their business premise and consequently use the same to pay suppliers and utility bills. Wamuyu, et al. (2011) observed that it assist in reducing transport cost and risk associated with transacting in cash.

2.3.4 Growth of SMEs

Higgins *et al.* (2012) investigated the mobile money usage patterns of Kenyan SMEs. The authors surveyed 865 SMEs which were urban and semi-urban based businesses. They found that whether Kenya SME owners used mobile money to receive payment, pay bills, salaries, or suppliers, they are higher in volumes of both mobile money adaptation transactions. Data showed that of the 865 SME owners who responded, 861(99.5%) used mobile money services in their personal or business dealings, and 67% used it for business.

Mbogo (2010) investigated success factors attributable to use of mobile payments by micro-business operators. The study based on a survey conducted through administration of questionnaires. The data collected from a sample of 409 micro-business entrepreneurs in Nairobi, Kenya. The study applied TAM, which extended to include other factors to help predict success

and growth in micro-businesses. Key findings showed that convenience, accessibility, cost, support and security factors are related to behavioural intention to use and actual usage of the mobile payment services by the micro businesses to enhance their success and growth. Moreover, it found that mobile money promotes entrepreneurship by providing a platform for development of new services and by enhancing performance of small enterprises.

According to World Bank (2012), the inability of the SMEs to access funds is still a major issue that limits the formation of new businesses and prevents others from expanding and growing. Lennart and Bjorn (2010) note that cash-flow management are key bottlenecks for micro and small enterprises operations. This assertion tallies with what Booster et al (2008) who established that debt collection, lack of working capital and low sales are among the top five challenges facing micro and small businesses. These challenges make SMEs lack financial capacity to enlarge and develop.

According to Atieno (2009), most formal financial institutions consider SMEs as un-creditworthy, thus denying them credit. This lack of access to financial resources has been seen as one of the reasons for the slow growth of SMEs. This is coupled with negative perception towards them, which adversely affect their ability to access financial services provided by financial institutions. This is because they are considered not viable customers by the formal financial sectors as their transaction sizes are small. Their accessibility to financial institutions is difficult due to low capital base, poor returns, lack of financial records and collateral property to secure loans from banks and this in turn affects their development (Amyx, 2005).

The objective of mobile financial transactions is to improve the efficiency of microfinance by using mobile technology to make transactions faster, cheaper and more secure (Guagraw, 2007).

It involves account transactions, balance checks and payments. Accordingly, Mbiti and Weil (2011) note that mobile phones technology has made it easier for SMEs to conduct their financial transactions. This is because mobile phone financial transactions saves time and provides a safer means of handling money transfer. Additionally, mobile technology can be used to reach more customers and facilitate exchange of information and decision making.

Huang (2008) conducted a study to determine the impact of mobile phones on SMEs performance in Auckland, New Zealand. He used a questionnaire to collect primary data. The results of his study indicated that most SMEs in Auckland were using mobile technology to conduct their business activities. Additionally, the results of the study indicated that the use of mobile devices had enabled SMEs to increase their annual turnover due to additional business networking opportunities. Furthermore, Bangens and Soderberg (2008) assessed the role of mobile banking and its potential to provide basic banking services to the vast majority of people in Sub-Saharan Africa. The data for the study collected from both the primary and secondary sources. According to their findings, mobile banking has facilitated financial transactions and remittance of funds. Additionally, the results of their study indicated that mobile banking has enhanced the operations and competitiveness of SMEs

2.4 Conceptual Framework

The study conceptualizes a framework consisting of the dependent and the independent variables. The independent variables include Mobile money services which include mobile payment, mobile finance and mobile banking. The dependent variable is the growth of SMEs. The conceptual framework for the study shows the relationship between the independent variables and the dependent variable as shown in Figure 2.2

Mobile Payment
- Accessibility
- Security Factors
- Cash Deposit
- Convenience

Mobile Finance
- Obtain Credit
- Savings
- Insurance
- Lower Operational Costs

Mobile Banking
- Money Transfer
- Balance Checks
- Payments
- Credit Applications

Growth of SMEs
- Increased capital
- Number of employees
- Profitability

Dependent Variable

Independent Variables
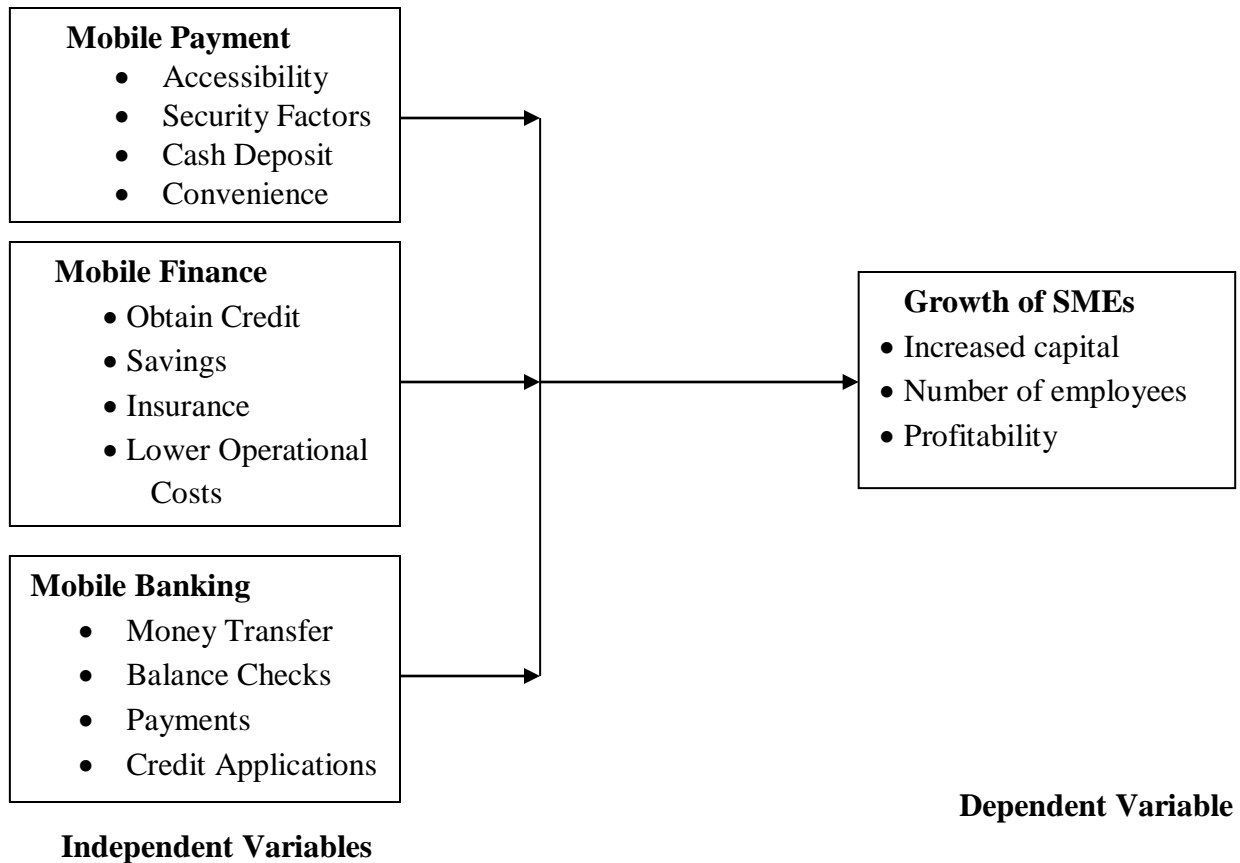
Figure 2. 1: Conceptual Framework

2.5 Critique of Reviewed Literature

Mobile banking is quickly moving towards growth and innovation. With customers becoming technology savvy, they are demanding that their banks be like they are – mobile (Camner *et al.,* 2010). They are driven by the fact that mobile technology is cheap, pervasive, easy to understand, low in maintenance and does not require time-consuming visits to the bank (Katiyar, 2011). Most financial experts look forward for MMS to work from anywhere and attend to financial transactions and settlements at exactly the time they are required, and not invest precious time in visiting a bank branch, filling in forms and making deposits. Therefore

development of low cost, scalable, virtual mobile banking services aimed at rural areas has an interesting future (Almazan & Cook, 2012).

It is evident that mobile money services have become a key tool for bringing financial services to the un-banked. It also expected that access to mobile money services would help SMEs overcome challenges of limited access to financial services as well as liquidity and cash-flow management by facilitating access to financial transactions. However, only 21% of SMEs use mobile money services to access financial services (Finscope, 2012) and 21% of M-PESA users use their accounts for business transactions (Inter Media, 2013). Mobile phone usage has been considered as a tool for greater business productivity and poverty reduction (Chew, Ilavarasan, & Levy, 2012).

2.6 Summary of Literature

The presence of the mobile money transaction has changed how business is conducted. This is because offering banking products through mobile phones has brought about great potential for reaching those who have no bank accounts. Moreover, accessibility to the mobile phone is to both the poor and the rich. According to Lennart and Bjorn (2010), the fast diffusion of mobile money transfer viewed as a potential key tool for facilitating financial transactions. This indicates that the rapid adoption of mobile phone seen as a means of uplifting the financial functionality of SMEs. A positive aspect of mobile phone is that mobile networks can reach remote areas at low cost thereby making it possible for financial transactions to be made in a simple and faster manner from any point insofar as there are mobile money service providers. It is easier to transact and at a lower cost. There need therefore to find out whether SMEs entrepreneurs (whose main target populations are unbanked), use mobile phones to transact their

businesses. At the same time how the use of mobile money services affects the growth of their businesses in terms of their profitability.

2.7 Research Gap

Current research over the topic of mobile money is concentrated mainly on the emerging technologies, consumer adoption of the mobile payment (Dahlberg et al., 2008), reviewing the key success factors of already implemented mobile money services and ecosystems (Mas & Ng'weno, 2010) and providing guidance for implementing a new mobile money service (International Finance Corporation, 2010). This study will also review the key success factors of the implemented mobile money transfer systems, but the main focus is on the relevance of mobile money to entrepreneurs and Small- and Medium-sized Enterprise (SME) owners as well as why they should be interested in using mobile money for business purposes.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the procedures that were followed in conducting the study. These include research design, target population, sample and sampling technique, data collection instrument, pilot testing, as well as the methods that were employed to analyze data.

3.2 Research Design

Research design is essentially the roadmap of conducting the entire study. Descriptive survey research design was adopted. As Kothari (2008) asserted, descriptive survey enables the researcher to respond to the "what" question which is the case in this study. The aspect of survey was based on the fact that, the study was conducted at a specific point in time, and the respondents cut across different groups.

3.3 Target Population

The target population is the population to which the study findings would be generalized (Cooper & Schindler, 2003). The current study was limited to SMEs in Nakuru, Kenya. There are over two thousands SMEs in Nakuru CBD. The study was targeting the Proprietors of the SMEs in Nakuru (CBD).

3.4 Sampling Technique and Sample Size

A sample is part of the population that has been procedurally selected to represent the population once the sample has been scientifically taken, the result can be generalized to the entire population. Burns and Groove (2001) refer to sampling as a process of selecting a group of people, events or behaviour with which to conduct a study. The purpose of sampling is to secure

a representative group (Mugenda, 2008). Burns and Grove (2003), refer to sampling as a process of selecting a group of people, events or behaviour with which to conduct a study. The researcher undertook purposive sampling to select 100 SME proprietors to participate in the study. The use of purposive sampling was as a result of the large number of SMEs; over 2,000 in Nakuru CBD making it convenient to apply purposive sampling. Simple random sampling technique was used to obtain the 100 proprietors among the many SMEs in the area.

3.5 Data Collection Instrument

According to Mugenda and Mugenda (2009), questionnaires are very suitable in survey research. In tandem with this assertion, a structured questionnaire was used to collect data from the respondents. The questionnaire captured data relative to respondents' background. Most importantly, it captured data regarding both the independent and dependent variables. The questionnaire enabled the researcher to collect data on a Likert scale.

3.6 Pilot Test

A pilot test was carried out before the main study. The rationale of pilot testing was to establish any potential weaknesses in the research instrument. The foregoing was achieved by determining both the reliability and validity of the research instrument (Mugenda & Mugenda, 2003). The researcher randomly selected 10% (10 respondents) of the sample population to participate in the pilot study. The researcher then excluded the participants of the pilot study from the main study.

3.6.1 Validity of the Research Instrument

Brains and Manheim (2011) asserted that validity is the extent to which a concept, conclusion, or measurement is well-founded and corresponds precisely to the real world. In other words, the validity of a measurement tool such as a questionnaire is said to be the degree to which that tool

measures what it claims to measure. The study sought to determine the content validity of the research instrument. The researcher sought the expert opinion of University supervisor to ascertain the content validity of the questionnaire.

3.6.2 Reliability of the Research Instrument

Reliability is said to be the extent to which a measurement gives results that are consistent. When reliability is upheld, then the research instrument should collect similar data when administered to different sampled populations exhibiting related characteristics. The study employed Cronbach alpha (α) coefficient to test the reliability of the research instrument. The findings from the pilot analysis were as shown in the table below

Table 3. 1: Reliability Analysis

Description	No of Items	Cronbach Alpha Coefficient
Mobile Payment	6	.712
Mobile Banking	5	.848
Mobile Finance	6	.730
Growth of SMEs	6	.725

All the variables returned Cronbach's coefficient values above 0.70 in the questionnaire and were considered as reliable.

3.7 Data Collection Procedure

Prior to data collection, the researcher sought the consent of the business department in Jomo Kenyatta University of Agriculture and Technology. The researcher further sought clearance from the various departments in the county government to be allowed to collect the data. The research questionnaires were afterwards distributed to the various respondents in Nakuru by the

researcher herself. The set of filled questionnaires were collected approximately within two days after their issuance.

3.8 Data Processing and Analysis

The collected data was analyzed by both descriptive and inferential statistics with the aid of the Statistical Package for Social Sciences (SPSS) version 24. Descriptive analysis involved frequencies and percentages for demographic data of respondents. In addition, means and standard deviations were employed across all variables (independent and dependent variables). Inferential statistics in form of correlation and multiple regression analyses were employed. The study used the t-test to test the hypotheses at 95% level of Confidence (α=0.05). In addition coefficient of determination (R^2) was used to test the contribution of each independent variable on the dependent variable. The findings of the study were presented in form of statistical tables. The following multiple regression model was adopted.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y represents SMEs Growth

B_0 represents Constant

X_1 represents Mobile Payment

X_2 represents mobile finance

X_3 represents mobile banking

ε represents Error Term

$\beta_1, \beta_2, \beta_3$ represent Regression coefficients of Independent variables

CHAPTER FOUR

FINDINGS AND ANALYSIS

4.1 introduction

This chapter presents a discussion of the research findings on influence of mobile banking on the growth of SMEs in Nakuru Central Business District in Kenya. The findings were in form of both descriptive and inferential statistics. The presentations of the findings were in tandem with the research objectives and study variables. The researcher essentially delved into the findings and discussions relative to the background information first, and then followed by descriptive and inferential statistics.

4.2 Response Rate

The response rate for this study was 96% which can be characterized as an excellent indicator, that the results are externally valid and therefore can be generalized. Essentially the response rate that every researcher would pursue would be 100%. In reality however this is not possible due to sampling measurement and coverage errors. A response rate below 51% is considered inadequate in social sciences (Pinsonneault & Kraemer, 1993). Babbie (1990) suggested that a response rate of 60% is good; 70% is very good.

4.3 Respondents Demographics

The researcher sought background information of the respondents in regard to their age distribution, education and experience. This was to assist in bringing out the demographic characteristics of the respondents.

4.3.1 Age distribution of the respondents

The researcher computed the frequencies and percentages of the respondents' age distribution. The findings from the analysis were as shown in Table 4.1

Table 4. 1: Distribution by Age

	Frequency	Percent
Below 25Yrs	38	39.6
26-35Yrs	31	32.3
36-45 Yrs	14	14.6
46-55 Yrs	8	8.3
Above 56 Yrs	5	5.2
Total	96	100.0

The findings showed that a majority of the respondents were below 35 years of age comprising of 71.9% of the respondents. 14.6% of the respondents were aged between 36-45 years, 8% between 46-55 years while 5% were above 56 years of age. The findings demonstrated that SMEs are majorly run by people in the youthful age bracket of below 35 years of age. This could be attributed to the fact that most of the SMEs could be started by people in their earlier years of life as they seek to build them into big businesses.

4.3.2 Academic Qualifications of the Respondents

To establish the level of qualifications of the respondents in running their businesses, the researcher examined the level of their education. The frequencies and percentages were established in this regard and presented as in Table 4.2

Table 4. 2:Education

	Frequency	Percent
secondary school	12	12.5
diploma	22	22.9
masters	27	28.1
degree	27	28.1
doctorate	8	8.3
Total	96	100.0

From the table, the findings indicated a fair distribution of respondents in all categories of academic qualifications in the study categorization. Most of the respondents had either a bachelor's degree or a master's degree comprising 56.2% of the respondents. 22.9% of the respondents had diploma certificates, 12.5% had only a KCSE certificate while 8.3% had a doctorate degree. This goes to show that most of the SMEs are run by educated people thus able to manage their businesses.

4.3.3 Respondents Experience

In this regard the researcher sought to establish the number of years the respondents had been operating their businesses. The frequencies and percentages were established and were as shown in Table 4.3

Table 4. 3: Experience

	Frequency	Percent
less than 1 yrs	31	32.3
1-5 yrs	44	45.8
5-10yrs	14	14.6
above 10yrs	7	7.3
Total	96	100.0

The findings showed that a majority of the business were below 5 years of operations comprising of 78.1 % of the respondents. This quite understandable given that the findings have also shown

that the majority of the respondents were youthful thus implying that this businesses were in their formative stages. 14.6% of the respondents business had been in operation for between 5 to 10 years while 7.3% had been in operation for more than 10 years.

4.4 Descriptive Statistics

The researcher sought to establish the perception of respondents regarding the various variables in the study. Given that the questionnaire elicited responses on 5 point Likert scale, the researcher established the means and standard deviations of the responses to assist in making inferences. This is presented in the following subsections.

4.4.1 Mobile Payment

Respondents were asked to classify their opinions in regard to their use of mobile payments in their business. The findings from the analysis were as presented in Table 4.4

Table 4. 4: Respondents perceptions on Mobile Payments

	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std. Dev
I use mobile phone to pay my suppliers	20.8	60.4	4.2	10.4	4.2	3.83	1.012
I also accept payment through mobile money from my clients	28.1	51.0	7.3	8.3	5.2	3.89	1.075
I don't receive cash from my clients since I have fully adopted lipa na Mpesa services	19.8	40.6	13.5	13.5	12.5	3.42	1.295
Receiving payments through Mpesa relieves me the problem of having so much money in my premises	27.1	58.3	8.3	4.2	2.1	4.04	.845
I also transfer money through Mpesa to my colleagues in business	29.2	54.2	7.3	7.3	2.1	4.01	.923
Mobile payments have enhanced the efficiency of doing business	30.2	59.4	3.1	4.2	3.1	4.09	.884
Valid N (listwise)	96						

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The table showed that the respondents were in agreement that they use mobile phone to pay their suppliers with a mean of 3.83 (agree) and a standard deviation of 1.012. Majority of the respondents comprising of 81.2% strongly agreed and/or strongly agreed that they used mobile phone to pay their suppliers. Respondents further agreed (M=3.89, SD=1.075) that they accept payments through mobile money from their clients with 79.1% of the respondents who agreed and/or strongly agree with the statement. Respondents also agreed that receiving payments through M-pesa relieves them the problem of having so much money in their premises (M=4.04, SD=0.845) having 27.1% and 51.3% of them strongly agree and agree respectively with the statement. In addition, respondents agreed (M=4.01, SD=0.923) that they transfer money through M-pesa to their colleagues in business this being represented by 89.6% of the respondents. Respondents were also of the view that mobile payments have enhanced the efficiency of doing business (M=4.09, SD=0.884) having 59.4% and 30.2% of the respondents strongly agreeing and agreeing respectively with the statement.

The researcher further sought to establish the more commonly used form of mobile payments. Therefore, respondents were asked to choose one of the following methods that they have applied in their businesses. The findings were as shown in table 4.5

Table 4. 5: **Method of Mobile Payment**

	Frequency	Percent
Till number	39	40.6
Pay bill number	25	26.0
M-pesa transfer	30	31.3
All	2	2.1
Total	96	100.0

The findings indicated that a majority of the respondents comprising of 40.6% of the total responses preferred the use of till number for payment. 31.3% of the respondents used M-pesa

transfer, 26% used Paybill number while only 2.1% of the respondents applied all the methods of mobile payments.

4.4.2 Mobile Finance

The researcher sought to establish the perceptions of respondents regarding use of mobile finance in their business. The percentages, means and standard deviations were computed to provide insight in this respect. The findings were as shown in table 4.6

Table 4. 6: respondents perceptions on mobile finance

	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std. Dev
Through use of mobile finance am able to obtain credit from financial institutions	22.9	59.4	10.4	4.2	3.1	3.95	.887
Mobile finance has enabled me gain enough finances to grow my business	29.2	49.0	10.4	10.4	1.0	3.95	.956
Through mobile finance am able to save money from my business proceedings	26	57.3	6.3	10.4	0	3.99	.864
The presence of mobile finance relieves me the problem of having to open a bank account	21.9	52.1	7.3	14.6	4.2	3.73	1.090
Access to mobile finance enables my quick response to customers' needs	28.1	53.1	6.3	11.5	1.0	3.96	.951
Valid N (listwise)	96						

Respondents agreed with all the attributes of mobile finance registering means greater than 3.5 and standard deviations less than 1.0. Thus the views of the respondents were not greatly dispersed. From the findings above, 82.3% of the respondents agreed (M=3.95, SD=.887) that through the use of mobile finance, they are able to obtain credit from financial institutions and that mobile finance has enabled them gain enough finance to grow their business (M=3.95, SD=.956) with 78.2% of the respondents agreeing and/or strongly agree with the statement. Further 83.3% of the respondents agreed that through mobile phone they are able to save money

from their business proceedings and that the presence of mobile finance relieves them the problems of having to open a bank account. In addition, 81.2% of the respondents agreed (M=3.96, SD=.951) that access to mobile finance enables their quick response to customers' needs.

The researcher went further to establish the mobile finance services utilized by the respondents in their businesses. The findings of the analysis were as shown in table 4.7

Table 4. 7: Method of Mobile Finance used

	Frequency	Percent
M-shwari	40	41.7
Equitel	33	34.4
KCB-Mpesa	16	16.7
All	6	6.3
Total	96	100.0

The findings indicated that a majority of the respondents used M-Shwari or Equitel comprising 41.7% and 34.4% respectively of the total respondents. KCB-Mpesa used by 16.7% while 6.3 % indicated that they used all mobile finance services.

4.4.3 Mobile Banking

The researcher sought to examine the perceptions of the respondents in regard to mobile banking and the operation of their businesses. The percentages, means and standard deviations values were computed to aid the researcher in making conclusions in this regard. The findings from the analysis were as shown in table 4.8

Table 4. 8: **Respondents views on Mobile Banking**

	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std. Dev

Statement						Mean	SD
Mobile banking enables me track transactions in my bank account	26	62.5	5.2	5.2	1.0	4.07	.785
Am able to access my account balance through my phone	25	65.6	4.2	5.2	0	4.10	.703
Am able to make deposit to my bank account through mobile banking	28.1	55.2	4.2	12.5	0	3.99	.912
Presence of mobile banking has prevented theft of money that arises from storing alot of money in the business premises	35.4	42.7	11.5	8.3	2.0	4.04	.956
I rely on mobile banking for all my banking transactions	30.2	44.8	8.3	15.6	1.0	3.88	1.049
Mobile banking is convenient in terms of time and cost of transactions	34.4	49.0	4.2	12.5	0	4.05	.944
Valid N (list wise)	95						

From the Table 4.8, 88.5% of the respondents agreed that mobile banking enables them to track transactions in their bank (M=4.07, SD=0.785) and that they are able to access their account balances through their phones (M=4.10, SD=.703) having 90.6% agreeing with the statement. Further 93.3% of the respondents agreed that they are able to make deposits to their bank accounts through mobile banking (M=3.99, SD=.912) while 78.1% agreed that the presence of mobile banking has prevented theft of money that arises from storing a lot of money in the business (M=4.04, SD=.956). On the other hand, 83.4% 0f the respondents agreed (M=3.88, SD=1.049) that they rely on mobile banking for all their banking transactions.

4.4.4 Growth of SMEs

Finally the researcher sought to establish respondent's views in regard to the growth of SMEs in Nakuru CBD. The percentages, means and standard deviation values were established to accomplish this endeavor. The findings from the analysis were presented as shown in table 4.9

Table 4. 9: Respondents perceptions on SMEs growth.

	SA (%)	A (%)	U (%)	D (%)	SD (SD)	Mean	Std. Dev
Use of mobile money services has been a great help in the growth of my business	30.2	50.0	4.2	13.5	2.1	3.93	1.039
Ability of gaining credit facilities through mobile money has enabled me to gain enough capital to grow my business	27.1	54.2	7.3	10.4	1.0	3.96	.928
My business has grown to the extent of employing more people to assist in running of the business	25.0	54.2	13.5	7.3	0	3.97	.827
I have seen growth in profit in my business since the time i started using mobile money services	20.8	61.5	12.5	5.2	0	3.98	.740
Mobile money services provided alternative source of credit from banks which were difficult to obtain	28.1	56.3	9.4	6.3	0	4.06	.792
The use of several branches of mobile money services has enabled me expand my business through opening new branches	29.2	51.0	9.4	9.4	1.0	3.98	.929
Valid N (listwise)	96						

From the analysis the researcher established that 80.2% of the respondents were in agreement that the use of mobile money services has been a great help in the growth of their business (M=3.93, SD=1.039) while 81.3% agreed that the ability of gaining credit facilities through mobile money had enabled the respondents to gain enough capital to grow their business (M=3.96, SD=.928). On average 79.2% of the respondents agreed that their business had grown to a level where they had to employ more people to assist in the running of the business (M=3.96, SD=.827). Additionally, 82.3% of the respondents agreed (M=3.98, SD=.740) that they had seen growth in their profits in their businesses since the time they began using mobile money services and that mobile money services provided alternative sources of credit from banks which are difficult to obtain. Finally, 80.2% of the respondents agreed that the use of

several branches of mobile money services had enabled them to expand their business through opening new branches.

4.5 Correlation Analysis

The researcher in this regard sought to examine the relationship between the independent variables and the dependent variable. The scores for the various variables were computed into composite scores of their means and the composite means used for inferential analysis. This made possible because of the use of Likert scale in the questionnaires. Pearson product moment correlation coefficient used in this regard. The findings were as outlined in the subsections below.

4.5.1 Mobile Payments and the Growth of SMEs

The researcher sought to establish whether there existed any significant relationship between the use of mobile money and the growth of SMEs in Nakuru CBD. The findings were as shown in table 4.10

Table 4. 10: Correlation between Mobile Payments and SMEs Growth

		Mobile Payment	SME Growth
	Pearson Correlation	1	.501**
Mobile Payment	Sig. (2-tailed)		.000
	N	96	96
	Pearson Correlation	.501**	1
SME Growth	Sig. (2-tailed)	.000	
	N	96	96

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

An average positive significant relationship was established between mobile payment and the growth of SMEs. The correlation coefficient obtained was 0.501 which was found to be significant at $p<.01$ level of significance. This indicates that mobile payment were significant

determinant of SMEs growth in Nakuru CBD. Hence increased use of mobile payments leads to increased growth of SMEs.

4.5.2 Mobile finance and the Growth of SMEs

On the other hand, the researcher further sought to examine whether there any significant relationship between mobile finance and the growth of SMEs in Nakuru CBD. Pearson correlation coefficient establishes to show whether there a significant relationship between the two variables. The findings from the analysis were as shown in table 4.11

Table 4. 11: Correlation between Mobile Finance and Growth of SMEs

		MobileFinance	SMEGrowth
MobileFinance	Pearson Correlation	1	.542[**]
	Sig. (2-tailed)		.000
	N	96	96
SMEGrowth	Pearson Correlation	.542[**]	1
	Sig. (2-tailed)	.000	
	N	96	96

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

The findings demonstrated the presence of an average positive significant (r=.542, p=.000) between mobile finance and SMEs growth. Therefore it observed that there is a direct linear relationship between the two variables implying that if one variable increased it consequently results to an increase in the other variable. Therefore in order to enhance the growth of SMEs in Nakuru CBD, the use of mobile finance is of key significance.

4.5.3 Mobile Banking and the Growth of SMEs

The researcher further sought to establish the relationship between mobile banking and the growth of SMEs in Nakuru CBD. Pearson correlations coefficient established and the findings presented as shown in Table 4.12

Table 4. 12: Correlation between Mobile Banking and the Growth of SMEs

		Mobile Banking	SME Growth
Mobile Banking	Pearson Correlation	1	.526**
	Sig. (2-tailed)		.000
	N	96	96
SME Growth	Pearson Correlation	.526**	1
	Sig. (2-tailed)	.000	
	N	96	96

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

An average positive significant(r=.526, p<.01) relationship established between mobile banking and the growth of SMEs. Thus there exist a direct significant relationship between mobile banking and the growth of SMEs. Thus, the successful growth of SMEs is dependent on the usage of mobile banking.

4.6 Hypothesis Testing

The study sought to test the hypothesis relating the independent variables to the dependent variable. The hypotheses were stated as follows.

  i.   Mobile payments have no statistically significant influence on the growth of SMEs in Nakuru town, Kenya.

 ii. Mobile finance has no statistically significant influence on the growth of SMEs in Nakuru town, Kenya.

iii. Mobile banking has no statically significant influence on the growth of SMEs in Nakuru town, Kenya.

To test the hypothesis, the researcher made use of Analysis of Variance (ANOVA) at a level of significance of p<.05. The findings were as presented hereafter.

The first hypothesis presumed that mobile payments have no significant influence on the growth of SMEs in Nakuru Town, Kenya. To ascertain this hypothesis, ANOVA was used to either reject or fail to reject the hypothesis. The findings from the analysis were as presented in the tables below.

Table 4. 13: Model Summary for Mobile Payment and Growth of SMEs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.501[a]	.251	.243	.59682

a. Predictors: (Constant), Mobile Payment

From the findings, an R-squared value of .251 was established that indicated that mobile payments can significantly account for up to 25.1 % of the total variance in the growth of SMEs in Nakuru CBD. As such, mobile payments contribute to a significant extent on the growth of SMEs in the CBD. The analysis of variance yielded the results shown in table 4.14

Table 4. 14: ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.198	1	11.198	31.438	.000[b]
Residual	33.482	94	.356		
Total	44.681	95			

a. Dependent Variable: SME Growth
b. Predictors: (Constant), Mobile Payment

The F-Value ($F_{(1, 94)} = 31.438$, p=.000) obtained was found to be statistically significant at p<.05 level of significance. Therefore the researcher observed that mobile payments have a significant influence of the growth of SMEs in Nakuru CBD. Consequently, the first hypothesis that mobile payments have no statistically significant influence on the growth of SMEs in Nakuru CBD rejected.

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The second hypothesis assumed that mobile finance has no significant influence on the growth of SMEs in Nakuru CBD. To ascertain the hypothesis, analysis of variance was done at p<.05 level of significance. The findings from the analysis were as shown in the following tables.

Table 4. 15: Model Summary for mobile finance and the growth of SMEs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542[a]	.294	.286	.57948

a. Predictors: (Constant), Mobile Finance

The analysis gave an R-squared value of .294 indicating that mobile finance can account for up to 29.4% of the total variance in the growth of SMEs in Nakuru CBD. Thus mobile finance plays a significant role in the growth of SMEs in Nakuru. ANOVA gave the following results shown in table 4.16

Table 4. 16:ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	13.115	1	13.115	39.056	.000[b]
Residual	31.565	94	.336		
Total	44.681	95			

a. Dependent Variable: SME Growth
b. Predictors: (Constant), Mobile Finance

The table indicated that the F-value ($F_{(1, 94)} = 39.056$, p=.000) for mobile finance was significant at p<.05 level of significance. Therefore, mobile finance was shown to have a significant influence on the growth of SMEs in Nakuru CBD. Therefore the second hypothesis that mobile finance has no significant relationship was consequently rejected. The researcher concluded that mobile financing significantly influences the growth of SMEs in Nakuru CBD.

The third hypothesis insinuated that mobile banking has no statistically significant influence on the growth of SMEs in Nakuru CBD. Analysis of variance was performed to ascertain the hypothesis the findings were as presented hereafter.

Table 4. 17: Model Summary on Mobile Banking and Growth of SMEs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.526[a]	.277	.269	.58620

a. Predictors: (Constant), Mobile Banking

An R-squared value of .277 obtained indicating that mobile banking accounted for 27.7% of the total variance in the growth of SMEs. Thus mobile banking plays an important role in enhancing the growth of SMEs in Nakuru CBD. The analysis of variance gave the results shown in table 4.18

Table 4. 18: ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	12.379	1	12.379	36.024	.000[b]
Residual	32.301	94	.344		
Total	44.681	95			

a. Dependent Variable: SME Growth
b. Predictors: (Constant), Mobile Banking

An F-value (F $_{(1, 94)}$ = 36.024, p=.000) for mobile banking was significant at p<.05 level of significance. Therefore mobile banking has a significant influence on the growth of SMEs in Nakuru CBD. As such, the null hypothesis that mobile banking has no significant influence on the growth of SMEs in Nakuru CBD rejected.

A multiple regression analysis further performed to assist the researcher in fitting the regression model. The findings from the analysis were as given below.

Table 4. 19: Model Summary on overall Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626[a]	.392	.372	.54359

a. Predictors: (Constant), Mobile Banking, Mobile Finance, Mobile Payment

The model summary gave an R-squared value of .392 indicated that the three independent variables (Mobile payments, mobile finance and mobile banking) taken together accounts for up to 39.2 % of the total variance in the growth of SMEs in Nakuru CBD. This indicates that the use of mobile money services is a key predictor of growth for SMEs in Nakuru. The analysis of variance gave the following results.

Table 4. 20: ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	17.496	3	5.832	19.737	.000[b]
Residual	27.185	92	.295		
Total	44.681	95			

a. Dependent Variable: SME Growth
b. Predictors: (Constant), Mobile Banking, Mobile Finance, Mobile Payment

An F-value of 19.737 obtained which statistically significant at $p<.05$. This showed that on overall the independent variables taken together had a significant influence of the growth of SMEs in Nakuru CBD. The model coefficient values were as shown below.

Table 4. 21: **Coefficients[a]**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.234	.366		3.376	.001
Mobile Payment	.165	.095	.185	1.740	.085
Mobile Finance	.264	.093	.296	2.844	.005
Mobile Banking	.266	.105	.263	2.536	.013

a. Dependent Variable: SME Growth

From the model coefficients, the following model was fitted.

$$\mathbf{Y} = 1.234 + .165\mathbf{X_1} + .264\mathbf{X_2} + .266\mathbf{X_3}$$

Where:

Y   represents SMEs Growth

X_1 represents Mobile Payment

X_2 represents mobile finance

X_3 represents mobile banking

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion of the study and it seeks to provide some justifiable recommendations deduced from the study findings.

5.2 Summary of Findings

The study carried out with the aim of establishing the aim of mobile money services on the growth of SMEs in Nakuru CBD, Kenya. As such the study sought to examine the effect of mobile payment, mobile finance and mobile banking on the growth of SMEs in Nakuru CBD Kenya. The findings established that SMEs traders used of mobile phone to pay their suppliers and that they accepted payments through mobile money from their clients. Further it observed that receiving payments through M-pesa relieves the traders the problem of having so much money in their premises and that traders also transfer money through M-pesa to their colleagues in business. It also established that mobile payments have enhanced the efficiency of doing business for SMEs.

An average positive significant relationship established between mobile payments and the growth of SMEs. This indicates that mobile payment were significant determinant of SMEs growth in Nakuru CBD. In addition mobile payments were seen to explain up to 25.1% of the total variance in SMEs growth. The research therefore observed that mobile payment had a significant influence on the growth of SMEs.

On the other hand, the study found out that through the use of mobile finance, the traders are able to obtain credit from financial institutions and that mobile finance has enabled them gain enough

finance to grow their business. In addition through mobile phone the traders are able to save money from their business proceedings and that the presence of mobile finance relieves them the problems of having to open a bank account. Additionally access to mobile finance enables the traders to quickly respond to the customers' needs. Correlation analysis indicated the presence of an average positive significant relationship between mobile finance and SMEs growth. Therefore it observed that there a direct linear relationship between the two variables implying that if one variable increased it consequently results to an increase in the other variable. The regression analysis showed that mobile finance plays a significant role in the growth of SMEs in Nakuru.

The study further established that mobile banking enables the traders to track transactions in their bank and that they are able to access their account balances through their phones. In addition respondents are able to make deposits to their bank accounts through mobile banking thus preventing theft of money that arises from storing a lot of money in the business. On the other hand, respondents agreed that they rely on mobile banking for all their banking transactions. An average positive significant relationship established between mobile banking and the growth of SMEs. Regression analysis indicated that mobile banking had significant influence on the growth of SMEs.

5.3 Conclusions of the Study

From the study findings, the study concluded that mobile money services significantly influences the growth of SMEs in Nakuru CBD, Kenya. This is depicted by the findings in this study that shows direct relationships between mobile payments, mobile finance and mobile banking and the growth of SMEs. Therefore the study concluded that the increased use of mobile money services has a positive impact on the growth of SMEs in Nakuru. This growth can be seen through the

expansion of the small SMEs from a single person run business to multiple employees and finally to a large enterprise with several branches.

5.4 Recommendations of the Study

From the study findings the researcher recommends that the mobile services provider should seek to promote their services to encourage as many business persons to make use of mobile money services. This can be done through consistent advertisements that will serve as a constant reminder of the importance of mobile money services to the operations of their business. On the other hand, financial institutions should take advantage of the increase in use of mobile money services to form collaborations with mobile phone services providers and provide flexible financial services to the traders. The study further recommends SMEs traders should adopt mobile money services in their businesses as this has been shown to serve as an instrument of growth in business. The use of mobile money services has been shown to have many potential benefits including shielding the traders from theft as a result of having so much cash at hand.

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APPENDICES

Appendix 1: Introduction Letter

Dear Respondent,

RE: RESEARCH QUESTIONNAIRE

I am a Masters student at Jomo Kenyatta University of Agriculture conducting a research entitled *"Influence of mobile money services on the growth of SMEs in Nakuru town Kenya."* This research forms part of the requirement for my Masters qualification. I would appreciate if you would kindly take a little of your time to complete a questionnaire that I will provide. Any information provided from you is purely for academic purposes and all responses will be treated with utmost confidentiality. Your cooperation is most valued and appreciated.

I take this opportunity to thank you in advance for your quick return of your completed questionnaire.

Yours faithfully

....

Mary Wangui Mararo   **Solomon Ngahu**

HD333-C007-0364/2015   **Supervisor**

Appendix 2: Research Questionnaire

This questionnaire is aimed at collecting data to facilitate the study titled: **influence of mobile money services on the growth of SMEs in Nakuru town Kenya.** The questionnaire forms an integral part of the study and the respondents are kindly requested to complete and give any additional information they feel is necessary for the study. The researcher will uphold utmost integrity and ethics by ensuring that the data collected will be used absolutely for academic purpose and will be treated with strict confidentiality.

Use the scale from 1 to 5 where **1-strongly disagree, 2-disagree, 3-undecided, 4-agree and 5-strongly agree** for your response.

Section A: Demographic Information of the Respondents

In the following section indicate using a tick (√) your choice in the various categories

1. **Age**

Below 25 Years ☐   26-35 Yrs ☐   36-45 Yrs ☐

46-55 Yrs ☐   Above 56 Yrs ☐

2. **Level of education**

Secondary school ☐   Diploma ☐   Degree ☐

Masters ☐   Doctorate ☐

3. **How long have you been in this business?**

Less than 1 year ☐   1 – 5 years ☐   5 – 10 Years ☐

Above 10 Years ☐

Section B: In the following section, use the following scale to show your level of agreement with the statements therein

1-Strongly Disagree (SD) 2-Disagree (D) 3-Undecided (U) 4-Agree (A) 5-Strongly Agree (SA)

I. Mobile Payments

	Description	5	4	3	2	1
i.	I use my mobile phones to pay my suppliers					
ii.	I place my orders through use of mobile phones with my suppliers					
iii.	I also accept payments through mobile money from my clients					
iv.	I don't receive cash from my clients since I have fully adopted Lipa na Mpesa service					
v.	Receiving payments through M-pesa relieves me the problem of having so much money in my premises					
vi.	I also transfer money through M-pesa to my colleagues in business					
vii.	Mobile payments have enhanced the efficiency of doing business					

Select the method of mobile payments that you usually use in your business

Till Number ☐   Pay Bill Number ☐

M-pesa Transfer ☐   All ☐

II. Mobile Finance

	Description	5	4	3	2	1
i.	Through use of mobile finance, am able to obtain credit financial institutions					
ii.	Mobile finance has enabled me gain enough finances to grow my business					
iii.	Through mobile finance, am able to save money from my business proceedings					
iv.	The presence of mobile finance relieves me the problem of having to open a bank account					
v.	Access to mobile finance enables my quick response to customers' needs					

Which of the following methods do you use in Mobile finance?

M-Shwari ☐   Equitel ☐   KCB-Mpesa ☐   All ☐

III. Mobile Banking

	Description	5	4	3	2	1
i.	Mobile banking enables me track transactions in my bank account					
ii.	Am able to access my account balances through my phone					
iii.	Am able to make deposits direct to my bank account through mobile banking					
iv.	Presence of mobile banking have prevented theft of money that arises out storing a lot of money in the business premises.					
v.	I rely on mobile banking for all my banking transactions					
vi.	Mobile banking is convenient in terms of time and cost of transaction					

IV. Growth of SMEs

	Description	5	4	3	2	1
i.	Use of mobile money services has been a great help in the growth of my business					
ii.	Ability of gaining credit facilities through mobile money has enabled me to gain enough capital to grow my business					
iii.	My business has grown to the extent of employing more people to assist in running of the business					
iv.	I have seen tremendous growth in my business since the time I started using mobile money service					
v.	Mobile money services provided alternative source of credit from banks which were difficult to obtain.					
vi.	The use of mobile money services has brought about growth of many SMEs in this town					