

**ROLE OF MOBILE MONEY SERVICES ON FINANCIAL INCLUSION
AMONG SMALL AND MEDIUM-SIZED ENTERPRISES IN MAVOKO SUB
COUNTY**

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DECLARATION

This research proposal is my original work and has not been submitted to any other college, institution or university

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DEDICATION

I dedicate this project to my parents for instilling in me good values and virtues that have continued to guide my decisions in life. I also dedicate to my friends for their encouragement to be the best that they could.

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ABBREVIATIONS AND ACRONYMS

ATM	Automatic Teller Machine
CAK	Communication Authority of Kenya
CBA	Commercial Bank of Africa
CBK	Central Bank of Kenya
GSM	Global System for Mobile Communications
ICT	Information Communication Technology
MFI	Micro Finance Institutions
MMS	Mobile Money Services
MNO	Mobile Network Operators
M-PESA	Mobile Money service by Safaricom
M-SWARI	Mobile money service by Safaricom and CBA bank
SMEs	Small and Medium-sized Enterprises

ABSTRACT

Over the past years, many SMEs have found it very hard to access affordable financial products. However, the introduction of mobile-money services has made it easier and cheaper for SMEs and individuals to access the available financial products. The objective of this study was to examine the role that mobile money services has played in the financial inclusion among SMEs in Mavoko Sub County. The study also aimed to understand which product of the mobile-money services played a major part in ensuring that the sampled SMEs had access to the financial products offered in the market. This study relied on the following theories: Innovation Diffusion Theory (IDT) and Technology Acceptance Model (TAM). The design selected for this study was the descriptive design. The target population in this study was the SMEs in Mavoko Sub County who use mobile money services. This study used stratified sampling method. The target SMEs were stratified on the basis of nature of business and then samples were selected from the strata using simple random method to get a representative unit. The study relied on secondary data. Secondary data was obtained from the Communication Authority of Kenya. Data analysis involved quantitative data. Analysis was made using SPSS version 20. The results revealed that the R square was 0.801 which indicated that the three independent variables for mobile money services explains 80.1% of financial inclusion. The remaining 19.9% would be explained by other factors not included in the study. ANOVA show the F statistic was substantial at 5% level with $p=0.000$. Analysis revealed that mobile payments for goods and services by SMEs has a positive but insignificant relationship. This implied holding all other factors constant, that a unit increase in the variable payment of goods and services would result in 0.11 increase in financial inclusion of SMEs but not significantly. with financial inclusion of SMEs. The results also indicated that account management through mobile banks by SMEs has a positive and insignificant relationship of 0.11 with financial inclusion of SMEs. However, credit facilitation of SMEs through mobile phones was found to have a positive and significant relationship with financial inclusion of SMEs. The study hence concluded that mobile banking services plays a positive role in financial inclusion of SMEs. The study recommended the owners of SMEs to increase their use of mobile phones in payments of goods and services, account management and credit facilitation for their businesses. The study also recommends banks to encourage their customers who own SMEs to apply for loans and make payments for the same through mobiles. The government through the SMEs regulator is also recommended to support SMEs in using mobiles in making transactions by training them on the same.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

It is broadly known that technology is essential in improving efficiency, accuracy, expanding reach and lowering costs. An example of an emerging technology in the microfinance sector is use of mobile technology in banking. Gartner (2012) stated that mobile transactions globally grew from 37.4 billion US dollars in 2011 to over 1.13 trillion US dollars in 2014, whereas the volume of mobile phone service users globally was more than 141 million in 2014 and the global mobile devices grew to 7 billion, which exceeds the global number of people. Mobile money services refer to electronic money accounts easily accessible using mobile devices (Zutt, 2010). These devices offer security and convenience for the banked and unbanked population to transfer funds using mobile devices locally or globally instantaneously. Such services allow members subscribing to a mobile telecommunication company to register and store money in a phone thus allowing them to obtain and send money to and from others within the same system network.

According to the word bank, financial inclusion involves access to money related products and services that meet their needs at fair and reasonable considerations. The services include savings and withdrawal of cash, payments and transfer of funds, insurance and credit facilities. It is expected access to these services would generally enable individuals and businesses to achieve their planned goals and hence improve their standards of living. Evasion from the formal money related structure has dynamically been perceived as a hindrance to a world without financial exclusion. In a number of developing countries, most of families don't keep records with a money related association, while small firms sometimes allude to inconvenience in getting and overseeing financing as a key constraint on their improvement (Kunt, 2011).

1.1.1 Mobile Money Services

By the year 2012, a total of 25 mobile money services being operated by several networks (MNOs) in Africa were in existence, with 15 being located in East Africa (GSMA, 2012). In East Africa at the close of 2012, Kenya was ranked as being the country with the highest number of mobile money service users with more than 30,800,000 users, representing 71.3% of users in Kenya. Tanzania came second with 9,200,000 mobile money users representing 43.4% of total subscribers in Kenya (GSMA, 2012). Uganda was third with approximately 2,100,000 equivalent to 8.1% of

the total subscribers in East Africa. Rwanda and Burundi each had 309,127 and 29,000 users respectively which represented 8.3% and 2.7% of the total users in the two countries (GSMA, 2012). In Kenya the number of people with mobile subscription by December 2017 stood at 42.8 Million representing 94.3% penetration rates (CCK Sector Statistics report, 2017).

Must and Ludewig (2010) attribute the rise in use of MMS to the global increase in mobile phone use to 1999. Use of mobile-enabled commerce (m-commerce) and services is however believed to have begun in 1997 when Coca-Cola vending machines and mobile banking services started in Finland. The earliest recorded mobile service was the Philippine's mobile operator launch of SMART money in 1999. By 2000, mobile money technology had begun spreading to other countries. After this GLOBE Telecom started G-cash in 2004 (Wishart, 2006). Bharti Airtel started an MMS in India in 2007 (Bosi, Celly and Joshi, 2011).

Mobile money can be classified into three general categories; M-transfer, M-payment and M-financial services. M-transfer involves changing ownership of money from one person to another that does not involve an exchange of goods, this may be done on the local or global level (Chale and Mbamba, 2014). Jenkins (2008) stated that M-payment involves the exchange of money between users which is accompanied by exchanges of goods and services. It involves persons to a person (P2P), government to a person (G2P) and person to business (P2B) exchange. An M-financial is a service in which MMS is linked to a bank account which provides users with transactions that will enable them access banking services. It involves credit, insurance and savings, payments of bills and transfer of money.

In Kenya, mobile money services were first initiated by KenCell and named Sokotele. The service suffered from poor marketing thereby failing to capture the market. Safaricom launched M-Pesa in 2007 which ultimately dominated the market. In the primary stages after launching, the service allowed subscribers to send or receive money. With the passage of time, additional features have been enabled while others have implemented MMS. Because of the wide acceptance of M-Pesa platform, this service has motivated other operators. As stated by the World Bank (2012), mobile money service is often associated with financial inclusion thereby using applications that extend financial services to the unbanked and those seeking low cost financial services.

1.1.2 Financial Inclusion

Demirguc (2008) stated that financial inclusion is the absence of price and non-price inhibitions in the utilization of financial services. For full inclusion in a country, the following conditions are crucial. The first condition is that accessibility to financial services should be available to all which is a financial inclusion goal. The second condition is that financial services provided should exhibit qualities such as being affordable, convenient, being product-fit, safe, and client safety. It involves the provision a basic financial services like basic credit, savings and insurance.

Financial exclusion has also been defined in relation to the larger issue of social exclusion of specific groups from the general society. Leyshon and Thrift (1995) define this term as the processes inhibiting social groups from accessing the formal financial system. Conroy (2005) stated that it is a process preventing the poor population from accessing the formal financial systems in their nations. It signifies the inability of certain societal groups to acquire, cheap, fair and safe financial services from approved providers.

Many individuals located in developing nations have no access to banking services. Because they face cost barriers, location and education they lack proper means of accessing secure means of transferring funds, making savings, insurance or getting credit (BASA, 2003). The above mentioned services meet varying needs encountered by every individual and ensuring that this product range is accessed is a crucial goal in inclusion. Credit enables individuals to utilize future income in managing current contingencies or fund investments. Savings are considered a safety net in which households are able to store finances, which will allow them to use past income when required. Insurance, acts as a barrier that protects against vulnerabilities (like death, sickness, or family disability). Payments services permit people to conduct transactions without the need to be in close proximity.

Access has a number of dimensions because such services have to be availed when required and products have to be tailored to meet the desired needs; affordability is a key aspect of these services including the non-price costs like the costs of travelling to access a bank branch and should make business sense, be profitable to the providers of such services and be availed continuously. It is difficult to measure accessibility. Usage is therefore used to indicate access even though it may underestimate the volume of households with access because of its failure to consider those who can access these services but are not utilizing it (Demirguc, Levine and Ross 2009).

Kenya has significantly expanded financial services reach in the past number of years. With the inclusion of mobile money transfer services, SACCOs and MFIs, the rate of formal inclusion has risen from 26.4% in 2006 to 40.5% in 2009. (CBK annual report, 2012). A number of factors are attributed to this increase which are; the spread of the major financial service providers, and consideration of inclusion as a national objective (Kenya vision 2030 strategic goal) and increased accessibility resulting from innovative electronic payment systems. Currently, there are forty three commercial banks in Kenya, eight Deposit Taking Microfinance was not witnessed because of the systemic perception and experience facing many of the unbanked thereby rendering banks complacent (Maina, 2009). In Kenya, the north rift, sections of Eastern and North eastern have registered the most number of excluded individuals which gives mobile service providers the chance to get more subscribers while offering the services at minimal costs and paperwork. They also collaborate with banks in offering financial products to individuals and change lives.

1.1.3 Small and Medium Enterprises in Mavoko Sub County

Although there is a global difference in the definition of SMEs across countries and in published works, the most common measures include number of employees, asset value, sales value and size of starting capital and profits. SMEs are hence known as businesses that have six to 50 staff or record an annual revenue that is lower than KES 50 million (FSD Kenya, 2008). In the US and Europe, it is predicted that SMEs are responsible for over 60% employment, 40-60% to GDP and 30-60% of the total exports. The major Asian players like India, Indonesia, China, Malaysia, Japan and South Korea also have a thriving SME sector that is responsible for between 70-90% employment and approximately 40% GDP contribution. In countries like South Africa, Egypt, Nigeria and Kenya, the sector contributes approximately more than 70% employment and 30-40% to GDP but has a lower contribution to the export market with lower than four percent in total earnings from exports (United Nations, 2005).

SMEs have a substantial economic significance to the Kenyan economy which has caught the attention of a number of policy makers. In the 2006 economic survey, it was approximated that the sector generated over 50% of jobs in 2005. In 2011, the informal sector was responsible for creating close to 80.6% of the total employment in the period as recorded in the economic survey

(KNBS, 2011). SMEs account for a large private sector share since they contribute to general investment, produce goods, take risks, perceive and utilize new avenues and develop business (Renny, 2011). SMEs in Kenya face a lot of challenges such as: lack of credit facilities, working capital and other financial services (Bowen, Morara & Mureithi 2009). Factors contributing to successful SMEs sector could be beneficial businessmen in ensuring they use appropriate factors when starting up their enterprises.

Mavoko is situated approximately 25 kilometers south west of Nairobi. Though part of Machakos County, it borders Kajiado County. The region is a growing residential area due to its proximity to the capital city of Nairobi, has a railway station and is one of the fastest growing metropolitan areas in Kenya. The Mavoko town has an urban population of 22,000 (according to the 1999 census), and is relatively industrialized. Among its key industries are large manufacturing firms such as Devki Steel. The small and medium size enterprises in Athi River Town include hardware's, salons, fast food restaurants, wholesales shops, construction firms and transport businesses (Daily Nation 2006, various editions).

It is therefore imperative to study the region because of the strategic importance of SME business in the outskirts of Nairobi. Athi River town which is the main town of the Sub County has been growing at a high rate if the number of businesses set up in the area in the last 2 years is anything to go by. A study carried out by Mwongera (2014) in Mavoko Sub-county in Machakos County found that many of the enterprises are managed by their owners or significantly controlled and run as family businesses and mostly have minimal capital and the technical skills and capacity to run the businesses. In the absence of research on how to increase financial inclusion the economy stands to lose a lot since its economic contribution to Kenya's GDP will be severely affected.

1.1.4 Mobile Money Services and Financial Inclusion of SMEs

The transformation seen in mobile phones technology in making money related transactions has been developing in the world at an extraordinary phase. The worldwide acceptance of mobile money service has improved financial inclusion .The achievements and advancement in technology specifically mobile devices have completely changed delivery of financial services and facilitated innovative ways of providing services to the deprived. In realizing the monetary presence for the poor population, the development of mobile money technology has been pointed out as the current trend in the financial industry. (IFC Mobile money report 2011).The rate of

adoption of mobile money in Africa is on the rise. Initially the focus on the use of mobile money created concerns for social and economic variables. An arousing interest on the economic impact and performance of mobile money services triggered several studies on microenterprises which indicated that those utilizing it saw many benefits (Kwakwa 2012).

The characteristics that make mobile money service attractive among SMEs include low costs to transact in comparison to other alternatives (Zutt, 2010 and Omwansa, 2009), increased access resulting from the increase in number of agents and subscribers nationwide has ensured reliable service provision overtime with the potential for provision of services (Must & Ludewig, 2010). Mobile phones have in-built features that provide instant services ensuring that it is an adequate tool for swift transactions (Zutt, 2010), additionally, they have messaging features which allows senders and receivers to get transaction information instantly with minimal errors reported during the transacting process and mostly arising from the input of customer information. Such features are essential in the performance of SMEs.

SME's in Kenya have adopted the utilization of mobile payments in transacting their business because mobile phones are relatively affordable and the services offered are cheap (Mbogo, 2010). Kenya's vision 2030 suggests that use of science, technology and innovation should be intensified to improve productivity and efficiency among the three pillars (economic, social and political). Mobile Money Transfer Service (MMTS) is an ICT innovation sector with the potential to improve efficiency of businesses when properly utilized. After launching of Safaricom's platform for transfer of money M-Pesa in March 2007, many Kenyans quickly adopted the subscription service. This subscription has rapidly grown over the years with the company hitting 900, 000 subscribers 8 months after the service had been launched, (Omwansa, 2009) and over 8.5 million subscribers by September 2009 (Safaricom, 2009).

In the year 2012, Safaricom Ltd, in collaboration with Commercial Bank of Africa, a Kenyan bank, launched an M-shwari service which automatically created bank accounts for M-PESA customers. With this partnership, it was predicted that the society would benefit if more individuals were included in the formal finance sector (Kabbucho and Coetzee, 2010)

1.2 Research Problem

Mobile money service, which was designed to assist companies in streamlining their operations has had an overwhelming growth in Kenya after being introduced in 2007 (Omwansa 2009). The success of the platform has been largely attributed to its low-cost nature and easy accessibility to low income earners (Mbogo 2010). The invention is very user friendly, efficient and reliable and has the capability to avail the unbanked or those that prefer low-cost financing with services. The invention is technologically appropriate for SMEs which continuously face challenges linked to limited low-cost and accessible financial that support businesses. It is hence important to explore the ways in which mobile money can be used, the nature of transactions and how they support the SME sector in Kenya. The economic survey (2011) is responsible for approximately 80% of the total employment. There is a growing need to focus on affordable methods of financial inclusion which have a positive contribution to the business performance of SMEs in areas such as sales increase, increase in use of MMS in purchasing business products, supplies, to save and access loans.

Financial inclusion as stated before includes all manner of actions made to avail formal financial services, make them accessible and affordable to all members of a given population (African Development Bank, 2013). Where there are no inclusive financial systems, the poor will heavily rely on their little savings (if they have at all) to make investments in education, health and other needs which could further extend the income inequality gap (Thorat, 2010). Additionally, he argues that inclusion requires a greater level of penetration to have access to bank accounts and easy access to credit cheaply. Even though this position has validity in the global market, the developing market tells an entirely different story. Financial inclusion hence requires higher level of penetration for innovative methodologies such as mobile money platform which reaches more people compared to the conventional methods.

Many of the SMEs in Kenya have centered their operations in the informal sector majority of them being sole ownerships or family businesses that employ less than five people. These people are involved in small, unregulated activities located in urban areas and many rural areas. Operational functions in these types of businesses are done by the owners/managers in market stalls, open-yards, residential properties and less-developed open spaces. Majority of these small business

operators have no bank accounts while those that have accounts, find them difficult to operate since they are required to leave their premises to make bank transactions. Because of this, mobile money services are more popular both to the banked and unbanked.

According to literature, mobile money is considered faster, cheaper, more reliable and safe (Jack & Suri 2011). Paperless transactions are beneficial since they minimize opportunities for fraud and criminal activities and mobile money technology had been adopted by many SMEs (Mbogo 2010). A gap in literature exists in showing how mobile money technology has improved the performance of SMEs by increasing sales, profits, improving loan accessibility and savings and if there exists any geographical limitations. This gap is found in the systematic assessment of how mobile money impacts SMEs in Kenya. Although this study suggests that mobile phone coverage and adoption is positively related to risk reduction, market improvement, and coordination amongst firms and the labor market, the available empirical evidence is largely limited (Jenny and Mbiti, 2010).

A number of studies have been conducted on mobile banking inclusion. Kigen (2011) investigated how mobile banking impacts transaction costs of MFI's in which a survey of microfinance institutions in Nairobi was made. According to the results from the study, mobile banking significantly lowered transactional costs of MFI's hence increasing the level of penetration of the institutions. Otieno (2008) studied the challenges facing implementation of mobile information systems among Kenyan banks and found the challenges faced include increased online insecurity, fraud and limited market acceptance. Wambari (2009) did a study on mobile banking among developing nations while utilizing a case study of Kenya in which he found that it is positively related to transfers, payments, deposits and withdrawals in small business financial transactions.

Previous studies done elsewhere confirm that mobile money service has a positive impact on small enterprises. Majority were done outside and in Kenya's capital Nairobi, therefore may not accurately reflect the growth of other business environments particularly the SMEs in Mavoko Sub County. In fact, the observation made is that studies on the impact that mobile telephones have on firm performance is very limited, especially in developing nations (Donner & Escobari, 2010). Therefore, this study sought to fill this gap by investigating how mobile money services impact financial inclusion of SMEs in Mavoko Sub County. The study sought to establish the relation between mobile money services and financial inclusion in Mavoko. Hence, it sought to answer

one research question: what is the role of mobile money services and financial inclusion in Mavoko Sub County?

1.3 Research objectives

The objective of this study was to examine the role of mobile money services on financial inclusion among SMEs in Mavoko Sub County

1.4 Value of the Study

The study sought to determine the role that MMS play in the financial inclusion of SMEs in Mavoko. This study would assist technology providers, government agencies and development partners to understand how mobile money service contributes to the growth of SMEs with regard to financial inclusion. This will help them to provide their clients with better technical support and advice and to provide new innovations. The government would additionally provide the necessary regulations interventions that will ensure operations of the concerned parties to run smoothly. Further the study will assist the SMEs operators in fully understanding the entrepreneurial impact that the technology will have on their businesses and to withstand the dynamic changes in mobile services development and the challenges faced in the small business environment.

The study findings would give valuable information to mobile phone companies that are involved in developing and augmenting products that will be beneficial to SMEs. The owners will find this knowledge beneficial which they will utilize to improve their businesses. The regulatory bodies will also utilize the findings to optimize service delivery while ensuring the sector continuously benefits from innovations in technology. The study will also add value to the existing literature while establishing gaps that will be beneficial to future research on the same or similar topics and suggest areas that require additional studies to be done.

To the policymakers regulators like the CBK, the results of the study would be crucial in informing policy changes specifically in the regulation of mobile banking. It will also add dimension that will improve policy direction regarding the regulation of M-banking and the factors that influence financial inclusion. The general public will also benefit since they will be informed on the benefits that MMS have on inclusion. This follows the premise that information crucial in service provision.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter explored literature related to the study as guided by the objectives. It also discussed the concept of mobile money services and the financial inclusion of SMEs. The chapter looked at the conceptual frame work, the theoretical perspective and the summary of gaps in the literature.

2.2 Theoretical Review

This section explored theories that can be used to explain the variables of study and how they relate. The theories place the variables in a theoretical context to give an understanding on their relationship. This study relied on the following theories:

2.2.1 Innovation Diffusion Theory (IDT)

The theory by Rogers (1983) states that an Innovation is an idea, object or practice recognized as new social system members (Ahlstrom,2010). Diffusion of innovation is the manner in which communication on the innovation is relayed through a number of channels over a period of time among members in the social system. The theory has attracted a lot of the attention of scholars who continuously make attempts to explain consumer behavior in regards to new technology. The suggestion made is that innovation diffusion is achieved when the society accepts and utilizes an idea or technology (Ahlstrom,2010). The theory proposes that there are four key elements in adoption. These are: innovation, communication channels, time and social system.

According to Rogers (2003) it is an idea, practice or project considered new by an individual or society irrespective of when it was invented. Communication is a process through which parties produce and exchange facts to reach a common agreement. Communication occurs through conduits between terminals. A channel is the manner through which a message gets from the generator of the message to the receiver. Time is another element in the theory .The innovation-diffusion process and rate of adoptions have a time element within which it occurs. The social system is the set of connected units involved in common problem resolution to accomplish a

similar aim. Further the theory states that five stages are in the innovation diffusion process that include; the knowledge, persuasion, decision, the implementation and confirmation stages.

This theory is important to this research since it lays out the manner in which new innovations spread. An innovation is therefore spread if people got to know about it and are persuaded that it is good, if they decided to adopt and implement it and if others accepted it. Failure at any stage hindered the spread of the innovation.

2.2.2 Technology Acceptance Model (TAM)

This model is most commonly utilized as an information systems theory that depicts how users begin to accept and utilize technology. The theory states that the adoption of an information system by users is determined by the users' intent to utilize the system which in turn is impacted upon by the users' beliefs' on the system. The theory further suggests that the two beliefs are crucial in explaining the variability in users' intentions. The two attributes that are considered most crucial in the acceptance of a technology are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU explains the usefulness of a new technology to a consumer whilst PEOU indicates how easy to use the consumer finds the technology. The use of the term "perceived" simply recognizes that the actual usefulness is very subjective and it is only by asking consumers can we know their perception towards something that has been filtered through their reality. In many ways, it is the same as perceived behavior control used to assess subjective attitudes despite failing to analyze the subjects. This simply means that fears and other emotions or feelings limit the consumers' perception of their interaction with the reality are not considered. However, Davis (1989) noted that, future technology acceptance research must consider the effect of other variables on the usefulness, ease of use and acceptability. Therefore the perceived ease of use and usefulness may not provide a full explanation of the behavioral intentions towards mobile money service use, necessitating the search for other factors predicting the acceptance of mobile money services better among SMEs.

The model has widely been used in predicting client acknowledgment and utilization based on predicted value and usability (Ndubisi & Richardson, 2002). Therefore TAM was selected as the

optimal model that would incorporate different factors, such as, predicted simplicity and availability, effort, accommodation, security and support of the versatile installment administrations by service providers.

2.3 Empirical Studies

2.3.1 Global Empirical Evidence

Agboola (2006) in a study of ICT role in banking in Nigeria used the nature and extent of innovative technology adoption; extent of utilization of the technology and ICT devices would have on banks, and found that ICT was the crucial factor driving industry competition. In the period when the study was conducted he witnessed an increased use of ATMs, EFT, smart cards, electronic, and telephone banking. He argued that ICT adoption improved the image of banks creating a wide and efficient market. He also mentioned that it is important for bank management to increase investments in ICT to increase speed, convenience and provide services accurately or lose to competition.

Laha (2011) in a study conducted in selected districts of west Bengal, India studied the determinants of financial inclusion. Empirical findings through the use of Bivariate Probit model indicated that the asset level of households, determined by operating land holding, substantially increases the chances of being a bank customer and information asymmetry existence in financial services is a hindrance to the financial inclusion process. Sharma (2008), using a cross country empirical study investigated the existence of a relation between inclusion and development in Pakistan. From the study findings, a positive relation was found between inclusion and several variables like income, inequality, literacy, and physical infrastructure.

Kathuria, Uppal and Mamta (2009) studied the impact that mobile penetration had on economic growth among states in India. A structural model was estimated using equations for the 19 states from the year 2000 to 2008. Specifically, an examination of the links in which mobile phones impact growth and the constraints therein was made. It was found that the states with greater mobile penetration rates were anticipated to have a faster growth and there was a substantial mass

at a rate of 25%, above which the impact of mobile phones on growth increases with network effects. Telecom networks, are greatly affected by network effects as compared to other infrastructure: the impact on growth is more significant when a substantial network size is achieved.

Singh and Kodan (2012) did an analysis of the relation that inclusion had on development in an effort to find factors related to inclusion. With the aid of a regression model, per capita NSDP and urbanization were significant to inclusion while literacy, employment and sex-ratio did not significantly predict financial inclusion.

2.3.2 Local Empirical Evidence

In a study investigating financial inclusion using mobile banking in Kenya, Mutsune (2014) examined how Kenya's money transfer platform M-pesa, contributed to financial inclusiveness responsible for reviving economic activity. The focus of the study was on finding a framework that would be utilized in estimating financial inclusion in Kenya using mobile banking and its relation to economic growth. The ideas presented in the study were an innovative exploration blending in economic thinking and elements of natural science that aimed to develop a framework to be applied in data appropriation. The study recommendation was that there should be flexibility in applying the new technology by policy makers. Because of the increasing number of transactions and banking services by mobile service providers, monetary authorities should reconsider rules affecting money supply and banking services. The study recommends that policy concerns should be monitored in further studies.

Musau (2002) studied the impact that financial liberalization had on financial sector development indicators in Kenya. He found that it increased financial services penetration in the country. Of the selected financial sector developments, MFI's had a crucial role in the promotion of the sector development.

Ngugi (2015) investigated how mobile money as an innovative mechanism contributes to financial inclusion. He relied on data from an eight year period (2006 to 2014). By utilizing a multiple regression analysis in testing the relation between MMS and inclusion, the conclusion made in the

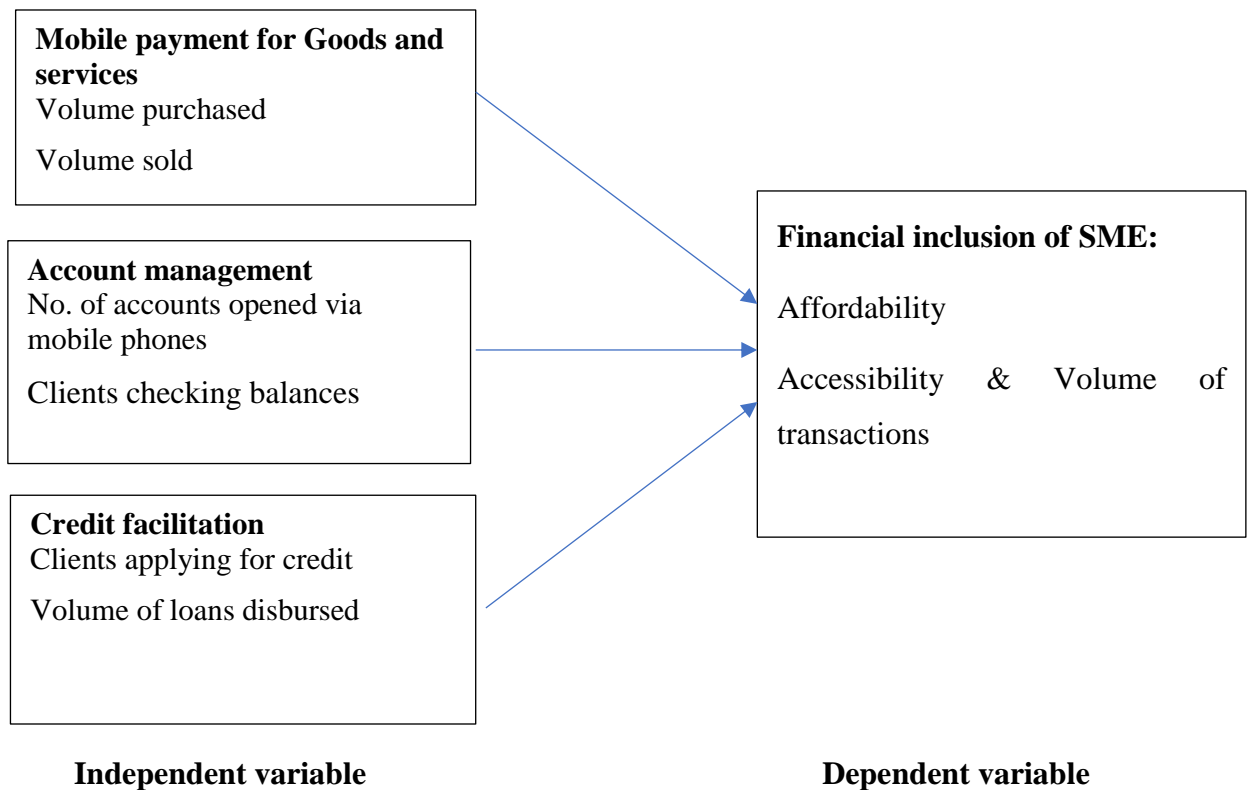
study was that it had a substantial impact in promoting inclusion. Mobile banking was observed to substantially contribute to the deepening of financial markets.

Achieng (2011) studied the strategic responses of KCB bank in Kenya to MMS and found that the industry is an emerging industry and a rapidly growing Kenyan market for any developing nation. The findings showed that strategic positioning and the growing demand for banking services to shift to Mobile money transfer services is essential in staying relevant and get a share of the huge market of mobile subscribers.

Waihenya (2012) studied how agency banking impacts inclusion in Kenya. The study relied on Secondary data since it could be accessed easily, was less costly and accurate for the study because of the regulations of the CBK. Secondary data derived prior studies conducted on the topic was derived from finance books, journals, periodicals and the internet. The conclusion from the study was that agency banking substantially increases financial inclusion in the country. The findings also showed that there are low levels of financial inclusion are low with a substantial gap that has not been filled by formal banking frameworks. It additionally found that agency banking faces a lot of challenges arising from the increase in mobile penetration together with increasing transactions.

Nyasetia (2012) studied how financial deepening impacts savings and investments in Kenya. In this study, the causal design was used in the investigation. The study relied on secondary data from 2006-2011. A regression analysis was done in establishing the relation for which a substantial positive correlation between savings and investments was found. It was also established that in the presence of proper financial deepening, the level of savings and investments in Kenya increase. In the presence of unfavorable interest rates, underperforming stock market, and limited deposits among banking institutions, a slow growth and improvement in savings and investments will be seen.

2.4 Conceptual Framework



Source: Author (2018)

2.5 Summary of the Literature Review

Variables making mobile money services attractive and increasing its uptake include low transaction costs in comparison to alternatives (Zutt, 2010 and Omwansa, 2009), increased access resulting from an increase in agents and subscribers (Zutt, 2010), has made service provision reliable over time with the potential to provide SME's with financial services (Must & Ludewig, 2010). Its features will provide instantaneous financial services thereby making it reliable for instant transactions in addition to efficiency and reliability of the service including the messaging system allowing senders and receiver to obtain information (Zutt, 2010). Beside extending access to the marginalized, the aim of mobile money the improvement of productivity increase efficiency, lowering transaction costs, creating employment and serving as building blocks that will grow other types of businesses (Donovan, 2012).

Literature shows that mobile money has the potential to overcome challenges related to long distance payments but is still challenged by the high withdrawal charges and possibility of losing out on investment opportunities and businesses. The crucial gaps exist in systematically assessing the impact that mobile money has on SMEs. Despite the suggestion by the current study that mobile phone coverage and adoption positively impacts risk, market improvement, and coordination with other firms and the labor market (Jenny and Mbiti, 2010), there still exists limited empirical evidence.

From the discussions, few studies have been done on the relation between MMS and inclusion in Kenya. The expectation is that a positive relation should exist between mobile money services and financial inclusion, but no literature exists between the two variables studied in Mavoko hence the study gap. The prior studies conducted have been done in different countries with different operating environments. The current study hence seeks to fill this research gap.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The purpose of this chapter was to provide the research methodology. The chapter outlined the procedures to be followed while investigating. The study design, population, sampling frame, data collection methods & analysis methods were defined in this section.

3.2 Research Design

The design shows how data is collected, analyzed and structured to meet the study objectives using empirical evidence (Cooper and Schindler, 2006). The design selected for this study was the descriptive design. Mugenda and Mugenda (2003) describes this as a systematic, empirical inquiry whereby the researcher lacks direct control of the independent variable since they are already manifested and cannot be manipulated. It was more appropriate since the study aimed at building a profile concern the relation between mobile money services and inclusion in Kenya. Gay (1981) defines this design as the process through which data is collected in testing hypotheses or answering questions relating to the current status of the study subjects.

3.3 Target Population

Mugenda, A., & Mugenda, O. (2003) defined population of study as the group of individuals, objects or events with some common researchable characteristics. The total number of individuals that the researcher is interested in studying about. It can also be said to be the population whose characteristics the researcher will attempt to describe. The target population in this study was the SMEs in Mavoko Sub County who use mobile money services. The respondents were the business owners. The target sectors were retail, transport, hospitality, entertainment and health services. From the Machakos licensing department estimate there were about 380 SMEs in the target sectors in the area of study as at December 2019.

3.4 Sampling Design

Sampling is defined as the selecting of a number of individuals form the larger group for a study while a sample is defined as a representative part of the population whose characteristics will be studied to gain information about the whole (Kobo & Tromp 2006). This study used stratified sampling method. Kothari (2009) said this method is appropriate if the population under study is

not homogeneous. The target SMEs were stratified on the basis of nature of business and then samples were selected from the strata using simple random method to get a representative unit.

Table 3.1: Sample Size

Classification of SMEs	Population	Sample size
General Trade	62	12
Transport and Communications	54	11
Agriculture	49	10
Hospitality	85	17
Professional and Technical	56	11
Education and Entertainment	51	10
Manufacturing	23	05
TOTAL	380	76

Source: Machakos Licensing Department (2020)

3.5 Data Collection

This is the most important part in collecting the required information that would aid in the achievement of the study objectives. The researcher acknowledges the many options and tools available to collect the data, while acknowledging the benefits and drawbacks of each method. To identify the relation between Mobile money services and financial inclusion in Kenya, the study relied on secondary data. Secondary data on the number of registered mobile subscribers and number of mobile money subscribers in Mavoko was obtained from the Communication Authority of Kenya. This hastened the acquisition of adequate and accurate information required for the study.

3.6 Data Analysis

After collection, the data obtained was cleaned and edited to ensure it is complete and consistent. Data cleaning involves identifying any incomplete or inaccurate responses and undertaking the necessary corrections. After this the data was coded and keyed into the SPSS version 20 computer program for analysis which involved quantitative data. Inferential statistics were also generated and the results were presented using frequency tables and models. Inferential statistics regression was used in establishing the relation between MMS and financial inclusion in Kenya.

3.6.1 Analytical model

The regression model used in this study was;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Where,

Y=financial inclusion

α = constant term

X1- Payment for goods and services

X2- Account management

X3- Credit facilitation

$\beta_1, \beta_2, \beta_3$ = Beta coefficients that indicate the weight of every factor

3.6.2 Variable definition and Measurement

Financial inclusion was measured by the ratio of loans approved to loans applied for while payment for goods and services was measured by the number of payments made using mobile money. The number of bank accounts opened by the SMEs using cell phones was used to measure account management and credit facilitation was measured by the volume of loans disbursed using cell phones.

Table 3.2: Operationalization of the Study Variables

Variable	Proxy	Definition	Measurement
Financial inclusion	Y	Absence of price and non-price inhibitions in the utilization of financial services	ratio of loans approved to loans applied for
Payment of goods and services	X ₁	Exchange of money between users which is accompanied by exchanges of goods and services through mobile phones	number of payments made using mobile money
Account management	X ₂	Link between mobile money services and a bank account which provides users with transactions that will enable them access banking services	Number of bank accounts opened using cell phones
Credit facilitation	X ₃	Ability to access loans from banks	volume of loans disbursed using cell phones

CHAPTER FOUR: DATA ANALYSIS, RESULTS, INTERPRETATIONS, AND DISCUSSION

4.1 Introduction

In this chapter there was presentation of the results obtained from the analysis of the data. The study collected data on loans applied for, loans approved, number of payments made or goods and services via mobile phones, number of banks accounts opened via mobile, volume of loans disbursed and the volume of mobile transactions for the year 2019. The study carried out descriptive statistics to summarize the data where the frequency and percentages were reported. The study also conducted correlation and regression analysis. The results were presented in this chapter in form of Tables.

4.2 Descriptive Statistics

The study conducted descriptive statistics for the data that was collected. The descriptive statistics that were reported were frequencies and percentages. The results were presented in Tables.

4.2.1 Descriptive Statistics for Loans Applied for

Table 4.1 presented the descriptive statistics for loans applied for by SMEs in Mavoko Sub-county for the years 2019

Table 4.1: Descriptive Statistics for Loans Applied for

Number of Loans applied for	Frequency	Percent
1	12	15.8
2	13	17.1
3	15	19.7
4	24	31.6
5	12	15.8
Total	76	100

From the results in Table 4.1, it was revealed that the number of loans applied for by the SMEs ranged from 1 to 5 with those who applied for 4 loans being the most representing 31.6%. The least number of loans applied for was 1 and 5 loans representing 15.8% each.

4.2.2 Descriptive Statistics for Number of Loans approved

Table 4.2 presented the descriptive statistics for loans approved for SMEs in Mavoko Sub-county for the years 2019.

Table 4.2: Descriptive Statistics for Number of Loans Approved

Number of Loans approved	Frequency	Percent
1	18	23.7
2	21	27.6
3	21	27.6
4	14	18.4
5	2	2.6
Total	76	100

According to the results in Table 4.2, it was evident that the number of loans approved was ranging from 1 to 5. However, contrary to the majority of loans applied for being 4, the number of loans that was approved was mostly 2 and 3 loans representing 27.6% each. Moreover, only 2 of the SMEs had 5 loans being approved representing 2.6%.

4.2.3 Descriptive Statistics for Number of Payments Made

Table 4.3 presented the descriptive statistics for number of payments made by SMEs in Mavoko Sub-county for the years 2019.

Table 4.3: Descriptive Statistics for Number of Payments Made

Number of payments made	Frequency	Percent
500- 600	17	22.4
601 – 700	10	13.2
701 – 800	14	18.4
801 – 900	20	26.3
901 – 1000	15	19.7
Total	76	100

The results in Table 4.3 indicated that the number of payments made for goods and services for the 76 SMEs ranged from 500-1000. Most of the SMEs made between 801 to 900 payments

representing 26.3%. On the other hand, those that made between 601-700 payments were the least at 13.2%.

4.2.4 Descriptive Statistics for Number of Banks Accounts Opened

Table 4.4 presented the descriptive statistics for number of banks accounts opened by SMEs in in Mavoko Sub-county for the years 2019.

Table 4.4 Descriptive Statistics for Number of Banks Accounts Opened

Number of bank accounts opened	Frequency	Percent
1 banks account	21	27.6
2 banks accounts	35	46.1
3 banks accounts	20	26.3
Total	76	100

Results in Table 4.4 showed that the number of banks accounts opened ranged from 1 to 3. The majority of SMEs according to the results had opened 2 banks accounts at 46.1%. Those that opened 1 and 3 accounts were almost equal at 27.6% and 26.3%.

4.2.5 Descriptive Statistics for Volume of Loans Disbursed

Table 4.5 presented the descriptive statistics for volume of loans disbursed to SMEs in in Mavoko Sub-county for the years 2019.

Table 4.5: Descriptive Statistics for Volume of Loans Disbursed

Volume of loans disbursed	Frequency	Percent
Ksh 100000- Ksh 300000	14	18.4
Ksh 300001 – Ksh 600000	16	21.1
Ksh 600001 – Ksh 900000	15	19.7
Ksh 900001 – Ksh 1200000	22	28.9
Ksh 1200001 – Ksh 1500000	9	11.8
Total	76	100

The volume of loans disbursed according to the results in Table 4.5 was ranging from Ksh 100000 to Ksh 1,500,000. According to the results further, most of the SMEs received between Ksh

900001 to Ksh 1,200,000 representing 28.9%. The SMEs that received between Ksh 1,200, 001 to Ksh 1,500,000 were the least at 11.8%.

4.2.6 Descriptive Statistics for Volume of Mobile Transactions

Table 4.6 presented the descriptive statistics for volume of mobile transactions by SMEs in in Mavoko Sub-county for the years 2019.

Table 4.6: Descriptive Statistics for Volume of Mobile Transactions

Volume of Mobile Transactions	Frequency	Percent
Ksh 100000 – Ksh 200000.00	2	2.6
Ksh 200001.00 – Ksh 400000.00	10	13.2
Ksh 400001.00 – Ksh 600000.00	5	6.6
Ksh 600001.00 – Ksh 800000.00	10	13.2
Ksh 800001.00 – Ksh 1000000.00	9	11.8
Ksh 1000001.00 – Ksh 1200000.00	7	9.2
Ksh 1200001.00 – Ksh 1400000.00	8	10.5
Ksh 1400001.00 – Ksh 1600000.00	8	10.5
Ksh 1600001.00 – Ksh 1800000.00	9	11.8
Ksh 1800001.00 – Ksh 2000000.00	5	6.6
Ksh 2000001.00+	3	3.9
Total	76	100

As per the results in Table 4.6, the amount of transactions made by the SMEs in Mavoko Sub-County was ranging from Ksh 100000 to Ksh 2000000. For most of the SMEs, the amount ranged from Ksh 200001 to Ksh 400000 and Ksh 600001 to Ksh 800000 at 13.2% each. However, those SMEs that made transactions ranging between 100001 to 200000 were the least at 2.6% while those that transacted amounts of over Ksh 2000000 represented 3.9%.

4.3 Correlation Analysis

Correlation analysis was conducted to assess the direction of the relationships between mobile payments for goods and services, accounts management and credit facilitation with financial inclusion. Results were presented in Table 4.7.

Table 4.7: Correlation Matrix

		Mobile Payments for Goods and Services	Account Managemen t	Credit Facilitatio n	Financial Inclusion
Mobile Payments for Goods and Services	Pearson Correlation				
	Sig. (2-tailed)				
Account Management	Pearson Correl ation	0.106			
	Sig. (2- tailed)	0.36			
Credit Facilitation	Pearson Correl ation	0.088	0.015		
	Sig. (2- tailed)	0.451	0.897		
Financial Inclusion	Pearson Correl ation	0.116	0.047	.893**	
	Sig. (2- tailed)	0.317	0.687	0.000	

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

The correlation analysis results revealed that mobile payments for goods and services had a positive but insignificant correlation with financial inclusion (Rho=0.116, P=0.317). This had the implication that a unit increase of the mobile payments for goods and services would result into a unit increase in financial inclusion but not significantly. According to the correlation analysis results, account management also had a positive but insignificant correlation with financial inclusion (Rho=0.047, P=0.687). This also implied that while a unit increase in accounts management would lead to a unit increase in financial inclusion, this increase would not be

significant. However, credit facilitation was seen to have a positive and significant correlation with financial inclusion (Rho=0.893, P=0.000). Hence, a unit increase in credit facilitation would result into a unit increase in financial inclusion.

4.4 Regression Analysis

In order to assess the relationship between mobile payments for goods and services, account management and credit facilitation, regression analysis was conducted. The relationship was tested at the significance level of 0.05.

Table 4.8: Model Fitness

R	R Square	Adjusted R Square	Std. Error of the Estimate
.895a	0.801	0.792	0.29196

The results revealed that the R square was 0.801 which indicated that mobile money services explains 80.1% of financial inclusion. The remaining 19.9% would be explained by other factors not included in the study. This therefore indicated a very strong association between mobile money services variables that is mobile payment for goods and services, account management and credit facilitation with financial inclusion of SMEs.

Table 4.9: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.639	3	8.213	96.348	0.000
Residual	6.137	72	0.085		
Total	30.776	75			

The ANOVA results revealed that the whole model used to explaining the relationship between mobile money services and financial inclusion is significant ($p=0.000 < 0.005$). This was also supported by an F value of 96.348.

Table 4.10: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.449	1.237		1.172	0.245
Mobile Payments for Goods and Services	0.11	0.166	0.035	0.662	0.510
Account Management	0.026	0.046	0.03	0.565	0.574
Credit Facilitation	0.856	0.051	0.89	16.844	0.000

The results in Table 4.10 revealed that the relationship between mobile payment for goods and services and financial inclusion among SMEs is positive but insignificant ($\beta=0.11$, $p=0.510$). A t statistic of 0.662 also supported the findings since it was less than the tabulated t value of 1.96 at 95% confidence interval. This implied holding all other factors constant, that a unit increase in the variable payment of goods and services would result in 0.11 increase in financial inclusion of SMEs but not significantly.

The results also revealed that while holding all other factors constant, account management has a positive but insignificant relationship with financial inclusion among SMEs is positive and insignificant ($\beta=0.026$, $p=0.575$). These findings were also supported by a t statistic of 0.565 which was less than the tabulated t statistic value of 1.96 at 95% confidence interval. The implication here also was that for every unit increase in account management, financial inclusion of SMEs would increase by 0.026 but not significantly.

On the other hand, however, credit facilitation revealed a positive and significant relationship with financial inclusion among SMEs ($\beta=0.856$, $p=0.000$). The results also showed that the t statistic was 16.844 which was greater than 1.96 which is the tabulated t statistic at 95% confidence interval further supporting the significance findings. Here, when all other factors are held constant, a unit increase in credit facilitation would result in 0.856 increase in financial inclusion of SMEs significantly.

The model was therefore confirmed as;

$$Y = 1.449 + 0.11X_1 + 0.026X_2 + 0.856X_3$$

Where,

Y=financial inclusion

X₁- Payment for goods and services

X₂- Account management

X₃- Credit facilitation

4.5 Discussion of Findings

The analysis of the data revealed that SMEs in Mavoko Sub county applied for between 1 to 5 loans where most of the SMEs applied for 4 loans. However, not all the loans were approved and the greatest number of loans approved for each SMEs was between 2 and 3. Only 2 SMEs had 5 of the loans they applied for in that case all the loans they applied for being approved. Further, findings revealed that the number of payments made for goods and services through mobile was between 500 and 1000 with majority making between 801 and 900 payments. The number of banks accounts opened ranged between 1 and 3 with most SMEs opening 2 accounts. Furthermore, the amount of loans disbursed to individual SMEs ranged between Ksh 100000 to Ksh 1,500,000 with those who received between Ksh 900001 to Ksh 1,200,000 being the majority. More so, the total number of mobile transactions made by individual SMEs was ranging between Ksh 100,000 to Ksh 2,000,000. Those who made between Ksh 200001 to Ksh 400000 and Ksh 600000 to Ksh 800000 were the majority.

Inferential statistics which were correlation analysis and regression analysis were also conducted. The correlation analysis revealed that mobile payments for goods and services had a positive but insignificant correlation with financial inclusion. This implied that with a unit increase in mobile payments for goods and services, the financial inclusion would increase insignificantly. The correlation analysis results also indicated that account management had a positive but insignificant correlation with financial inclusion. This further implied that a unit increase in account management through mobile would result into an insignificant increase in financial inclusion. Finally, correlation analysis results showed that credit facilitation through mobile has a positive and significant correlation with financial inclusion. This implied that a unit increase in credit facilitation through mobile phones would lead into a significant increase in financial inclusion.

Regression analysis also revealed similar results as with correlation analysis. From the regression analysis, it was evident that mobile payments for goods and services by SMEs has a positive but

insignificant relationship with financial inclusion of SMEs. The results also indicated that account management through mobile banks by SMEs has a positive and insignificant relationship with financial inclusion of SMEs. However, credit facilitation of SMEs through mobile phones was found to have a positive and significant relationship with financial inclusion of SMEs.

The results of this study are in line with the findings by Ngugi (2015) who established that mobile banking substantially contribute to the deepening of financial markets. The findings are also in line with Ouma, Ondongo and Were (2017) who established that growing and deepening the scope for mobile phone financial services is an avenue for promoting savings mobilization, especially among the poor and low-income groups with constrained access to formal financial services.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of findings described in the previous chapter. The chapter also include the conclusions and recommendations for policy and practice and for further research. The conclusions and the recommendations were done based on the study findings.

5.2 Summary of Findings

The correlation analysis revealed that mobile payments for goods and services had a positive but insignificant correlation with financial inclusion. This implied that with a unit increase in mobile payments for goods and services, the financial inclusion would increase insignificantly. The correlation analysis results also indicated that account management had a positive but insignificant correlation with financial inclusion. This further implied that a unit increase in account management through mobile would result into an insignificant increase in financial inclusion. Finally, correlation analysis results showed that credit facilitation through mobile has a positive and significant correlation with financial inclusion. This implied that a unit increase in credit facilitation through mobile phones would lead into a significant increase in financial inclusion.

Regression analysis also revealed similar results as with correlation analysis. From the regression analysis, it was evident that mobile payments for goods and services by SMEs has a positive but insignificant relationship with financial inclusion of SMEs. The results also indicated that account management through mobile banks by SMEs has a positive and insignificant relationship with financial inclusion of SMEs. However, credit facilitation of SMEs through mobile phones was found to have a positive and significant relationship with financial inclusion of SMEs. These findings were in line with the findings by Ngugi (2015) who established that mobile banking substantially contribute to the deepening of financial markets. Findings also agreed with Waihenya (2012) who found that agency banking substantially increases financial inclusion in the country.

5.3 Conclusion

Based on the above findings, this study concluded that the use of mobile phones in payments of goods and services by SMEs has a positive effect on financial inclusion of SMEs. The study also

concluded that managing accounts through mobile banks by SMEs has a positive effect on SMEs financial inclusion. Further, the study concluded that credit facilitation of SMEs through mobile phones has a positive effect on financial inclusion of SMEs.

The study hence concluded that mobile banking services plays a positive role in financial inclusion of SMEs. The use of mobile phones in making payments for goods and services that is paying for purchases and receiving payments for sales made increases the number of mobile transactions. Similarly, opening of banks accounts as well as managing banks accounts such as checking for balances through mobiles also increases the number of mobile transactions. More so, the use of mobiles in applying for loans, receiving disbursement for loans and making payments for loans also increases the number of mobile transactions. Increase in the number of mobile transactions hence enhances financial inclusion of SMEs.

5.4 Recommendations

The following recommendations were made to the owners of SMEs and also to the government and banks based on the study findings.

The study recommended the owners of SMEs to increase their use of mobile phones in payments of goods and services for their businesses. Business owners are recommended to ensure that they make payment for most of their purchases through mobile phones as well as encourage their customers to pay through mobiles. The study also recommends SMEs to open banks accounts and manage the accounts through their mobiles. Further, SMEs are encouraged to enhance their use of mobiles in applying for loans and also accept disbursement of loans through their mobiles. They should also make the payments of loans through mobiles. This will see the number of mobile transactions increase and hence enhance financial inclusion of SMEs.

The study also recommends banks to encourage their customers who own SMEs to apply for loans and make payments for the same through mobiles. This they should do by simplifying the systems used for loan application, payments and disbursements. In doing so, this will see many of the SMEs shift to mobile credit facilitation. Banks should also ensure minimal charges for the same or no charges at all. The government through the SMEs regulator is also recommended to support SMEs in using mobiles in making transactions by training them on the same.

5.5 Areas for Further Research

The current study was conducted to assess the role of mobile money services on financial inclusion among SMEs in Mavoko Sub-county in Machakos County. Similar studies could be conducted in other counties which will help in comparing financial inclusion of SMEs in different counties in Kenya. Other studies could be conducted on other factors such as agency banking and online money services and the role they play in financial inclusion of SMEs in Kenya. Moreover, studies could be conducted to investigate the challenges encountered by SMEs in using mobile money services in Kenya and hence make recommendations for improvements. Other studies could use other methodologies such as use of primary data other than secondary data.

5.6 Limitations of the Study

The study was limited in terms of the number of SMEs that were covered as only 76 of the SMEs and only SMEs in Mavoko were studied. This limitation was curbed by recommending for further studies that would cover other SMEs in other counties of the country. The study was also limited in terms of the availability of data as not all data was reliable which was curbed by recommending future studies to use other types of data such as primary data. Furthermore, the study faced the limitation of lack of enough literature on the studies conducted on the topic. However, this study would add to the existing knowledge gap.

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Appendix I: Data Collection Form

Year	Loans applied for	Loans approved	Number of payments made	Number of bank accounts opened	Volume of loans disbursed