INFLUENCE OF MOBILE BANKING SERVICES ON PERFORMANCE OF MICRO BUSINESSES IN THE INFORMAL SECTOR IN KENYA: A CASE STUDY OF JUA KALI ARTISANS IN NAIROBI COUNTY

BY

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UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

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UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ____________________________ Date: ______________________
Faith M. Mutio (ID NO 653956)

This project has been presented for examination with my approval as the appointed supervisor.

Signed: ____________________________ Date: ______________________
Mr. Kepha Oyaro

Signed: ____________________________ Date: ______________________
Dean, Chandaria School of Business
ABSTRACT

The general objective of this study was to examine the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya. To achieve the general objective, the study focused on three specific objectives; to find out the effect of mobile banking cash management on the performance of micro businesses, to determine the impact of mobile banking credit accessibility on performance of micro businesses, and to determine whether mobile banking convenience influences performance of micro businesses in the informal sector.

The study applied a cross sectional research design. The research design was of intrigue in light of the fact that the study aimed to establish the relationship between the autonomous factors and execution of miniaturized scale organizations in the casual segment. The target population of the study was the 1850 micro enterprise traders in Nairobi’s Gikomba market, in Kamukunji sub County while applying Slovin formula to come up with 100 participants. Primary data was collected using questionnaires while secondary data was be gathered using publications from World Values Surveys, government records, non-profit organisations (NGOs) records and media articles related to the topic under investigation. Chi square ($\chi^2$) and Pearson’s correlation analyses were applied in this study to establish the effect of mobile banking services on performance of micro businesses in the informal sector.

On mobile banking cash management, the study found that mobile banking services has enhanced micro businesses by minimising cost of sending money via traditional means which is tedious and involves logistical costs. Findings revealed that more than half of the respondents stated that mobile banking helped them in sending money; saving/depositing money, withdrawing money from mobile bank account, receiving money, checking account balance with the bank and paying bills.

On mobile banking credit accessibility, the study found that micro businesses in the study area were able to access a short-term loan on their mobile phone account which meant that the micro businesses will continue thriving if they continue embracing mobile banking services.

On mobile banking convenience, the study established that more than three thirds of the micro enterprises were of the view that time taken to transact business with Mobile banking is short which suggest that micro enterprises in the study area will continue to thrive if this
environment of mobile banking services continue in the future. Further findings indicated that mobile banking is easy to use and it takes a few seconds to deposit, or withdraw money. Correlation results indicated that M-banking Services and Performance of Micro businesses have a positive linear correlation as well as significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya.

The study concluded that micro businesses in the study area will continue thrive if they continue embracing mobile banking services. In addition, accessing low interest credit is considered to be an important factor in increasing the performance of micro businesses. The study also concluded that m-banking services and performance of micro businesses have a positive linear correlation as well as significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya.

The study recommends that in order to achieve cash management, mobile banking services need to offer diverse services ranging from account information, by alerting customers on the updates and transactions on their account through their phones in real time. It is also recommended that the mobile banking platform should offer more unsecured mobile loans to help boost upcoming micro, small and medium enterprises. To achieve this, this study recommends that the costs and risk involved in handling cash should be shifted to the service providers to enhance development of Micro businesses.
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God Bless You.
DEDICATION
This study is dedicated to my loving family for their support, patience and encouragement during the entire process.

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Mobile banking is a service provided by financial institutions in cooperation with mobile operators (Anurag, 2014). It is tied in with getting banking services to the unbanked, the individuals who don't have bank access or financial balances, and the individuals who are at the base of the monetary pyramid, frequently living in remote regions (Makee, 2014). Customers of mobile banking services get the advantages of saving money services, for example, having the capacity to save and borrow in a cost-proficient and secure way. The services incorporate viewing account balances, making exchanges between accounts, or paying bills through a cell phone (Kariithi, 2015). Mobile banking is frequently performed through SMS or the Mobile Internet however can likewise utilize unique projects called customers downloaded to the cell phone (Salzaman, Palen & Harper, 2015).

Cell phones have been a versatile devise for keeping money that has influenced different economy segments including micro business owners around the world (Anurag, 2014). This is as far as payments for example; individual to individual (P2P), individual to business (P2B), business to individual (B2P) or business to business (B2B). Micro business entrepreneurs see mobile banking as a helpful and savvy method for money conveyance to their suppliers and business accomplices (Raddi, 2013). The challenges that micro businesses face in attaining sustainable growth is how to reach their customers, the mode of payment, and accessibility to local receipts of money and payment of their credit - since in many developing countries 9 out of 10 people do not have a bank account or access to basic financial service (Wambari, 2016).

The inability of the micro businesses to access funds is yet a noteworthy issue that confines the growth of new businesses and keeps others from expanding and developing (World Bank, 2014). Also, cash-flow management are key bottlenecks for micro enterprise venture (Lennart & Bjorn, 2014). Accomplishment of any micro business might just rely upon how to mobilize money rapidly from investment funds, credit from providers, or to have clients that can pay upon conveyance (World Bank, 2014).

In the banking world, developments in information technology have had an enormous Effect in development of more flexible payment methods and more user-friendly banking Services (Akinci, Aksoy, & Atilgan, 2014). In Malaysia, mobile banking has been
embraced using mobile phones whereby customers can transact using mobile phone devices without necessarily visiting physical banks (Razak, 2013). The situation is no different in South Africa where, banks have partnered with mobile phone operators to offer mobile banking services in terms of mobile payments, depositing money in personal accounts, withdrawing from accounts, short-term loans and payment of bills among others (Makee, 2014). This trend has seen mobile bank providers continue to invest in the mobile banking infrastructure for effective provision of mobile banking services to the low-income market (MTN, 2013).

The methods of payment with mobile phone devices have been the most recent development in East African community and have revolutionized how business is conducted among the micro and small-scale business holders (Kariithi, 2015). Studies show that high percentage of micro businesses in the region have embraced the use of mobile payment technology in their operations (Tyagi, 2015; Muturi, 2014; Atandi, 2013; & Muna, 2016). Offering bank services and products through mobile phones has brought about great potential for reaching those who have no bank accounts (Kuuya, 2014). This has been enhanced by the fact that many people have a mobile phone where they can access mobile banking services.

The banking industry in Kenya is well established with a myriad of commercial banks which are categorized as large, medium and small banks (Muturi, 2014). Competition is very high between Kenyan banks and the demand for banking services is increasing with the gradual increase in economic growth (Muasa, 2015). There is need to enhance value delivery for the clients to stay competitive in the industry (Muturi, 2014). Banks tend to increase branches in the country to beat competition but the new trend is to improve service delivery and harness technology to serve customers better hence increased revenue (Koivu, 2015). Banks in Kenya are now providing special services, value-added services, by way of increasing convenience, tapping a broader market, increasing service channels and lowering cost in accessing their services. Fast diffusion of mobile money transfer is viewed as a key tool for facilitating financial transactions (Taga, 2013). Studies have revealed the potential of mobile banking services for payment purposes (Poustitchi, 2013).

Informal sector in Kenya has continuously experienced growth and is considered a key sector in the economy as well as creation of jobs (Nyangori, 2014). The sector is important because it plays a vital role in the development of the Kenyan economy and thus it cannot
be ignored because it constitutes 98% of all businesses in the country, absorbing a high population of school, college and university leavers (Malick, 2014). The informal sector contributed over 50 percent of new jobs created in the year 2013 (Nzuki, 2013). With the advent of mobile bank services in the region, the sector is expected to perform exceptionally well (Saffu, 2015). This is because mobile banking has been associated with minimal transaction costs (Joseph, 2015).

Micro businesses 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 (Mbiti, 2015). Muhammad Yunus pioneered the concept of micro enterprises in 1976 in Bangladesh (Corbitt, 2013). His idea was to help poor women to become economically self-sufficient and end poverty. Micro business is any enterprise, with less than 50 employees and includes sole entrepreneur, part-time or home-based entities (Escobari, 2013). The business daily transactions are usually conducted by the owner/manager in market stalls, open-yards, residential houses and on underdeveloped open grounds (Mbiti, 2015). These characteristics have always denied the micro enterprises a chance to secure a loan from banks as they are perceived as high risk (Callon, 2015), and therefore mobile bank services have been a game changer because the enterprises can now access short term loans through their mobile phone devices (Joseph, 2015). 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 (Kuuya, 2015).

The growth of mobile banking services was a turning point to micro businesses, which otherwise could not be served well by commercial banks (Muturi, 2014). It is possible for banked individuals to access their accounts through their phones. Previously, customers had to travel to branches to access services like loan application, account balance and statement, pay bills and funds transfer (Muasa, 2015). This is an inconvenience since customers have to queue after travelling. This costs users money and time hence extra cost to access banking service (Brown, 2014).

1.2 Statement of the Problem

Bank customers are using mobile banking applications like PesaPap of Family Bank; Pata Cash of Kenya Post Office Savings Bank; KCB Connect of Kenya Commercial Bank; and M-shwari, among others to access basic banking service like; deposits, withdrawals,
disbursement and repayment of loans, bills payments, funds transfer, balance checking and querying mini bank statements (Central Bank of Kenya, 2013). Mobile payment platforms enhance effectiveness in operations between the business, customers and the bank and the business that use mobile banking which encourages growth of businesses (Caporaso & Madeira, 2014).

Research exists on role of traditional banking services on performance of SMEs in Kenya, but little has been done in mobile banking services and its effects on growth of informal sector (Momanyi, 2014). A cross sectional study by Bwisa (2014) examined the impact of M-Pesa on performance of businesses in Kenya but did not focus on other mobile banking payment platforms. This makes it difficult to generalize the findings. Another study conducted by Moenga (2015) investigated the effects of mobile banking in the developing countries with specific reference to Kenya but the study did not touch on informal sector. Emphasis has always focused on large companies to the neglect of challenges faced by the informal sector in Kenya (Moeser, 2014; Gomez, 2015; & Marchini, 2016). Little efforts have been put on the effect of cost of transaction among micro businesses in the informal sector (Kuo, 2013). Mutisya (2016) conducted a study on the role of mobile banking on growth of micro and small enterprises in Kitui County. The study did not take into consideration the impact of financial accessibility among micro businesses in the informal sector in other Counties like Nairobi.

Generally, previous studies in Kenya have almost exclusively focused on mobile banking and success of large firms (Wambua, 2014). This leaves a gap in the literature focusing on the challenges facing use of mobile banking services in the informal sector particularly the micro enterprises in Kenya (Buigut, 2015 & Kipkorir, 2014). It is against this background that this study sought to examine the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya focusing on Jua kali artisans in Nairobi County.

1.3 General objective
The general objective was to examine the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya: A case study of Jua kali Artisans in Nairobi County.
1.4 Specific objectives

The following specific objectives guided the study;

1.4.1 To examine the effect of mobile banking cash management on the performance of micro businesses in the informal sector.

1.4.2 To determine the impact of mobile banking credit accessibility on performance of micro businesses in the informal sector.

1.4.3 To determine whether mobile banking convenience influences performance of micro businesses in the informal sector.

1.5 Significance of the study

1.5.1 Micro Business Owners

The study is useful to owners of micro enterprises because the findings may assist them understand the role played by mobile banking services and enable them to develop necessary measures to optimize the benefits of mobile banking. Jua kali artisans can use the study to educate themselves on the many avenues and platforms that m-banking affords them.

1.5.2 Banking Sector

Financial institutions in Kenya may use the findings of this study to develop policies to enhance development of new services in mobile banking and provide a broader range of services needed by micro enterprises in Kenya. The findings of this study can be used by mobile phone operators to improve or expand their services in a way geared to economic empowerment to all involved.

1.5.3 Policy makers

Government may use the findings of this research to develop policies that regulates the business operations between the informal sector and the mobile banking service providers.

1.5.4 Other Researchers

In future, other researchers and scholars may seek to extend further studies on the influence of mobile banking services on micro businesses in the informal sector. This examination was along these lines imperative to future analysts as it could be utilized as a hotspot for future references and reference to enhance the assortment of learning in this field of portable managing an account.
1.6 Scope of the Study
This study focused on the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya with reference to Jua kali artisans in Nairobi County. The target population was the 1850 Jua Kali artisans in Gikomba market, Nairobi County. This population (Jua kali artisans) was of interest because they make the largest number of micro enterprises in the informal sector in the County (Kenya National Bureau of Statistics, 2015). They also have a good understanding of information pertinent to the research objectives. As a measure intended to prepare members, the scientist set aside opportunity to meet with every single potential member and elucidated to them the significance, scope and the commitments of this examination to their association.

1.7 Definitions of Terms
1.7.1 Mobile Banking
Mobile banking means where customers communicate with the bank through a mobile gadget, either a mobile phone or personal digital device that generates data communication information (Corbitt, 2013).

1.7.2 Micro Business
Micro business an enterprise with less than 50 employees and includes sole entrepreneur, part-time or home-based entities. The business daily transactions are usually conducted by the owner/manager in market stalls, open-yards, residential houses and on underdeveloped open grounds (Mbiti, 2015).

1.7.3 Informal Sector
Informal sector is that part of an economy that is neither taxed, nor monitored by any form of government. Unlike the formal economy, activities of the informal sector are not included in the gross national product (GNP) and gross domestic product (GDP) of a country (Keynes, 2013).

1.7.4 Jua Kali Artisan
Jua Kali Artisan is a worker in a skilled trade, especially one that involves making things by hand (Honey, 2013).

1.8 Chapter Summary
The background showed that mobile banking has marked a new frontier in banking sector and mobile phone technology with an ever-increasing number of micro enterprises using it
in their transactions to enhance business performance. However, the statement of the problem has indicated that previous studies in Kenya have almost exclusively focused on mobile banking and success of large firms to the neglect of the informal sector. Chapter two reviewed the literature on the influence of mobile banking services on performance of micro businesses in the informal sector based on the three specific objectives. Chapter three discussed the methodology, research design, and analysis strategy. Chapter four presented the primary data base on the study variables while Chapter five summarised the results and related them with the existing literature.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
The chapter fundamentally analysed the impact of versatile managing an account benefits on the execution of smaller scale organizations in the casual segment dependent on the explicit research goals. The part exhibits hypothetical writing dependent on the free factors (portable saving money the board; versatile keeping money credits; versatile saving money comfort; and mobile banking transaction cost) and finally summary of the literature review.

2.2 Mobile Banking Cash Management on the Performance of Micro Businesses
Cash Management is the business process of collecting and managing cash, as well as using it for (short-term) investing (Chew, 2014). It is a key component of ensuring a company's financial stability and solvency (Aduda & Kingoo, 2015). In addition, a micro-business (or micro enterprise) is largely characterized as an independent company utilizing nine individuals or less and having a monetary record or turnover under €2 million (Soderberg, 2014). Most micro-business entrepreneurs are essentially inspired by gaining a living to help themselves and their families (Kuuya, 2015). They just develop the business when something in their lives changes and they have to produce a bigger wage (Wambari, 2014).

As indicated by data found on the Census of United states government site, microenterprises make up to 95% of the 28 million US organizations (US Census, 2013).

2.2.1 Cash Flow Management
Maintaining an optimum cash amount calls for proper management of cash flows (Matoha, 2016). Firms with good cash management systems are also able to make any investments decisions needed to compete. Shaban (2008) did a study on factors affecting performance of small sized businesses in Gaza, Palestine. The study found out that the main issues affecting performance were cost, time management and safety. Auma (2014) did a similar study in Kenya focusing on micro enterprises in Nairobi, citing that there was an increase in the number of stalled enterprises due to problems such as high cost of materials, cash flow management, quality management and the leadership style adopted on site.

A study by Mutti and Hughes (2016) on cash flow management of service firms in the UK revealed that insolvencies are higher in the services industry as compared to other sectors, citing the major cause of failure as lack of financial control and poor management. The
study elaborates that with a good cash flow management such companies can be kept operating and financially healthy. Failure can be prevented using models of cash flow management and forecasting that form a basis for managers to rethink their cash flow management practices. Nguku (2015) studied the survival of informal businesses in Kenya and found out that a combination of many factors have made the informal sector very volatile, less profitable and more competitive making survival of micro businesses very challenging.

Intense competition and increased volatility have made the industry more vulnerable to fluctuations in demand and survival has been an uphill task. This thus calls for better strategies to ensure these are able to navigate and adapt to the continuous dynamic market turbulences (Baum & Wally, 2013). Since China and India are the leading countries contributing most growth to emerging markets (Price water house Coopers, 2013), Kenya business community expect that this recent involvement in some of the mega projects in Kenya will fast track growth in the informal sector as well. Jabbari (2013) on a study to examine the role of operational cash flow and its ability to predict a stock price crash found out that the more the amount of operating cash flow, the less the stock price crash risk would be. This in other words is in favour of a good cash flow management system being used to predict the stock market performance of a security asset. In contrast, Cheng (2015) did a study to investigate if cash flows are relevant for stock pricing in Malaysia and the findings were that though cash flows appear to have no information content on share prices in the annual and medium windows tests, it does have information content in the short window tests with incremental information content beyond earnings.

Cash flow management are key bottlenecks for miniaturized scale and little undertakings tasks (Lennart & Bjorn, 2014). Income is a wide term that alludes to the gathering, focus, and dispensing of money (Jenkins, 2013). The objective is to deal with the money adjusts of a venture to expand the accessibility of money not put resources into settled resources or inventories and to do as such to maintain a strategic distance from the danger of bankruptcy (Finscope, 2013). Variables observed as a piece of money the executives incorporate an organization's dimension of liquidity, its administration of money adjusts, and its transient speculation procedures (Amit, 2015). Somehow or another, overseeing income is the most essential activity of business administrators. In the event that whenever an organization neglects to pay a commitment when it is expected due to the absence of money, the business is indebted (Barney, 2014). Indebtedness is the essential reason
organizations go bankrupt. Additionally, productive money the board implies something other than averting insolvency. It enhances the productivity and decreases the hazard to which the firm is uncovered (Ching, 2016).

Versatile keeping money administrations plan to diminish the time it takes to gather the money that is owed to a firm (Mulumba, 2013). A portion of the wellsprings of time delays are mail coast, preparing buoy, and bank skim. Money the board endeavours, in addition to other things, to diminish the length and effect of these "skim" periods (Donner, 2013). The mobile banking services offer a number of services ranging from account information, by alerting customers on the updates and transactions on their account through their phones.

In Kenya, effective use of Mobile banking services has led to better utilisation of personnel and organisations assets, increased revenues and increased access to financial services by the general population (Mwania & Muganda, 2015). Mobile banking services include the micro enterprise owners using: P2P (Person to person) transfer service where money is transferred from phone to phone for business or personal purposes (Muasa, 2013). B2B (business to business) transfer service where money is transferred from the business to another business such as payment to a supplier for goods delivered (Joseph, 2015). B2C (business to customer) transfer service where money is transferred from a business such as a micro enterprise paying a loan (Kinyanjui, 2015). C2B (Customer to business) transfer service where the micro enterprise could be making a repayment to a utility bill or when the macro enterprise receives payment from a customer. Phone to bank and bank to phone transfer service as when funds are moved from M-Shwari to M-PESA account and vice versa when making a deposit to the bank account and a withdrawal from the bank account using a mobile phone (Zaineb, 2013; Njenga, 2016).

World today has changed contrasted with the mid-twentieth century. The progressions are because of globalization, mechanical headway, financial advance and foundation of various associations, which continues changing at a quick rate consequently making business rivalry wild (Taga, 2013). This sort of worldwide concentration requires an adjustment in how small and micro businesses consider functioning capital administration, and most eminently, money management as there is fundamental attitudes and correspondence diverse in in cash and payments between the various businesses and regions (Lennart & Bjorn, 2014).
Micro businesses must be able to generate sufficient cash to be able to meet immediate obligations and therefore continue trading (Kariithi, 2015). According to Kariithi, wealth and growth in today’s world economy is primarily driven by optimal cash management practices. Several studies report that cash management practices are associated with a firm’s innovative financial results, and an optimal cash balance that enables a firm to minimize the holding and opportunity costs associated with micro businesses’ cash balances (Tyagi, 2015; Muturi, 2014; Atandi, 2013; & Muna, 2016). Management of an enterprise should improve cash management practices to enhance innovative performance. In the same way, micro enterprises usually face some difficulties with short of security, inappropriate financial statement preparations as well as unproductive accounts preparation and ineffective cash practices in the businesses (Razak, 2013). Razak, comment that micro businesses, in particular, must pay attention to the timing of funds inflows and outflows to ensure that cash is available to meet their financing needs.

### 2.2.2 Effectiveness of Cash Management

Micro businesses are characterized by frequent financial transactions which may involve large amounts or long distances (Frost, 2014). As a result, mobile phone financial transactions provide them with a way through which they can lower their costs and save time with a cheaper and more convenient way to carry out their financial transactions (Pousttchi, 2013). Cell phone monetary exchanges help smaller scale organizations to diminish data asymmetries and market wasteful aspects consequently empowering them to accomplish better execution (Jensen, 2015). In addition, micro businesses in Kenya perceive mobile phones financial transactions as tools that can mediate their activities by transforming their objectives into outcomes (Chogi, 2015). According to Chogi (2015), this in turn has an effect on their profitability and productivity.

A study on the impact of mobile banking on small and micro business performance in Auckland, New Zealand found that most micro businesses in Auckland were using mobile technology to conduct their business activities (Huang, 2014). The consequences of the examination demonstrated that the utilization of versatile saving money had empowered smaller scale organizations to build their yearly turnover because of extra business organizing openings and clear monetary administration (Huang, 2014).

Besides, another investigation on the job of versatile keeping money and its capability to give essential managing an account administration to most by far of individuals in Sub-
Saharan Africa found that portable saving money has encouraged budgetary exchanges and settlement of assets (Bangens & Soderberg, 2015). The examination demonstrated that versatile saving money has upgraded the activities and aggressiveness of miniaturized scale and private companies. A cross sectional study on the impact of mobile phone technologies on Micro and small businesses in Nairobi revealed that most micro and small business operators perceived mobile banking services as a game changer on their revenue management (Chogi, 2014). Additionally, the study results showed that majority of SMEs agreed that mobile banking had enabled them to reduce their operating costs due to enhanced cash management.

Another study on the use of mobile banking by micro enterprises in developing countries analysed data from fourteen research studies that had examined mobile use by micro businesses and the findings showed that mobile banking services have helped micro entrepreneurs become more productive and improve their sales management thereby improving their financial performance (Donner & Escobari, 2013). A contextual investigation in Kenya to decide the effect of portable saving money benefits in creating nations utilized a semi-organized survey to gather information from an example of 20 little and smaller scale organizations (Wambari, 2016). The results of the study indicated that mobile banking services had a positive impact on financial transactions of small and micro businesses (Wambari, 2016). Moreover, the consequences of the investigation demonstrated that the selection of versatile managing an account had empowered miniaturized scale organizations to build their deals in this way prompting enhanced budgetary execution.

A study to determine mobile money usage patterns of Kenyan SMEs used a questionnaire to collect data from 865 SMEs owners and results of the study showed that 99.5% of micro businesses used mobile banking (Higgins, 2013). Moreover, the study results indicated that the use of mobile money enabled micro enterprises to improve their financial management and hence performance. M-Shwari service for example allows micro business owners to deposit and withdrawal money in their accounts as well as to send money using mobile banking technology (Chogi, 2014). Mobile banking transactions provide micro businesses with a means through which they can reduce their operating costs as well as increase their ability to manage cash and extend their business networks thus enabling them to increase their performance (Mbogo, 2016).
2.3 Mobile Banking Credit Accessibility on Performance of Micro Businesses

2.3.1 Access to Credit

Credit constraint operates on a variety of ways in Kenya where undeveloped capital market forces micro businesses to rely on self-financing or borrowing from friends or relatives. Lack of access to long-term credit for micro enterprises forces them to rely on high cost term finance (Nair, 2015). These difficulties stem from the more formal lending institutions which led to rate all small and micro enterprises equally as un-credit worthy (Omwansa, 2016). However, the emergence of less formal institutions like mobile banking loans do not ease this burden. These microcredit institutions face limited expansion because of their limited funds. Their mainly short-term finance means they cannot easily turn the saving they collect into medium or long-term loans (Nzuki, 2013).

They are also up against the cost of refinancing through the formal banking sector and have no central bank (Wanjohi, 2014). Surveys done in less urban areas of Ghana on business related calls and expenses related to such calls was conducted by Razak (2013) showing that mobile phone ownership increased access to small loans markets, contributed to efficiency in conducting business. M-Pesa from Safaricom has been studied in detail by Njenga (2016) who observed certain patterns of usage. Even though the M-Pesa is not used for money storage, it has this potential even though the primary purpose has been to send and receive money (Ouma, 2013). Access and use of more sophisticated financial services through mobile money services like savings, credit, and insurance could prove more beneficial (Donovan, 2015) even to micro enterprises. Mobile money services can also be viewed as a variation of branchless banking with the potential for delivery of financial services outside conventional banking (Pagani, 2015). This observation made by Raddi (2013) can have a number of useful benefits to micro businesses, which include access to financial services like loans and making deposits and savings, accessing the formal banking sector through mobile money services and many others.

Mobile banking loan services assist microenterprises to pay for their insurance premiums, accumulate assets and obtain credit (Hajri, 2014). Mobile finance assists SMEs to save money on mobile bank accounts and get credit, which enable them to deliver goods and services to their clients. The improvement in service delivery enhances their business transactions. However, the inability of the micro enterprises to access funds is still a major issue that limits the formation of new businesses and prevents others from expanding and
This assertion tallies with what Booster et al (2013) who established that debt collection, lack of working capital and low sales are among the top five challenges facing micro and small businesses (Ivatury, 2014). These challenges make micro enterprises lack financial capacity to enlarge and develop.

Most formal financial institutions consider micro enterprises as un-creditworthy, thus denying them credit (Atieno, 2013). This lack of access to financial resources has been seen as one of the reasons for the slow growth of SMEs (Kent, 2014). This is coupled with negative perception towards them, which adversely affect their ability to access financial services provided by financial institutions. The target of versatile budgetary exchanges is to enhance the effectiveness of microfinance by utilizing portable saving money innovation to make exchanges quicker, less expensive and progressively secure (Guagraw, 2017).

A study on the role of mobile finance found that M-banking enhances economic growth of businesses (Govil, 2014). According to the study, Mobile banking speeds up the flow of goods and services create conducive atmosphere for investment and above all security. Another study on impact of adoption and use of mobile phone technology on the performance of micro and small enterprises, found a positive relationship between mobile usage and the performance of micro and small enterprises (Onyango, 2014). Similarly, another study found that use of mobile phone technology among SME’s enhanced faster response to customers’ needs, increased internal efficiency, enhanced access to new markets and lower operational costs (Kakwa, 2012). Financial access is critical for the growth of both the small and micro enterprises (Mutua, 2014). It allows micro entrepreneurs to innovate, improve efficiency, expand to new markets, and provide millions of jobs.

A case study on impact of mobile banking credit and performance of micro businesses in Tanzania’s Morogoro Municipal collected data from 100 respondents using interviews (Kalio, 2013). The results showed that through the credit obtained from mobile banking, micro entrepreneurs have been able to improve businesses in terms of: increased business profit, increased employees, increased sales turnover, increased business diversification, increased business capital and assets as well as reduction of poverty among customers surveyed (Madole, 2013). Mobile banking loans plays a very crucial role to promote micro business growth (Kalio, 2013). The findings indicated that the amount of loans is significantly and positively related with performance of micro businesses.
2.3.2 Unsecured Loans

Unsecured mobile loans are helping to boost millions of micro small and medium enterprises (MSMEs) across east Africa (Soderberg, 2014). Versatile managing an account administration increments budgetary openness for both the saved money and the unbanked (Erickson, 2015). In the early 2007, 38% of Kenyans had no access to any form of financial services and this might have contributed to rapid mobile banking penetration in Kenya (Kigen, 2014). Lack of financial services means that micro businesses owners cannot efficiently save or borrow money (Omwansa, 2016). Access to mobile banking services allows micro and small business holders to save which translates into increased business performance. Increased savings via mobile banking services increases the potential for the micro businesses to secure financing that contributes to business growth (Koivu, 2014).

A study on effects of mobile banking lending and micro and small enterprises performance within Kitale Municipality adopted a descriptive survey research design and a target population of 1,200 MSEs within Kitale Municipality revealed that the amount of mobile banking loans is significantly and positively related with performance of MSEs (Wanambisi, 2013). The study also established that loan disbursement, done through mobile phones is instant allowing users to bypass formalities in the commercial banking systems.

A study on impact of mobile banking credit on poverty reduction in Ghana employed economic and social variables such as individual income, household growth, access to education, housing and participation in social and religious activities as benchmarks for measuring the impact. Questionnaires were administered to 60 customers and beneficiaries of mobile banking products (Boateng, 2015). The study found a positive relationship between mobile banking credit and the benchmark variables and recommended training for beneficiaries to ensure efficient use of funds and creation of sound political and economic environments so that micro enterprises can thrive. The study also found that Micro-entrepreneurs and individual borrowers are moving more towards mobile bank lending platforms as tighter credit rules lock them out of conventional borrowing.

Another study on effect of access to mobile banking loan services on the growth of women-owned enterprises within the Central Business District of Kisumu City sourced data from 190 women micro entrepreneurs (Ouma & Rambo, 2013). The study found that access to mobile bank credit was significantly associated with sales, net profit, number of paid
workers and liabilities. Thus, access to mobile bank credit had positive effects on the growth of women-owned enterprises. However, the study established that, mobile bank lending policies were not responsive to financing needs of women and to changes in the business environment. According to the study, this undermined the potential of funded enterprises to achieve sustainable growth. The study recommends the need to review the mobile bank lending policies, increase the amount of Mobile bank funds and encourage other actors to finance women-owned micro enterprises.

Similarly, a cross-sectional survey on the role of mobile bank loans on growth of micro and small enterprise (MSE) in Thika Municipality, Kenya sampled 285 MSEs randomly and the findings demonstrated that mobile banking offer credit services to customers who are majorly (MSEs) and had contributed to business growth which has been rapid over the years (Muiruri, 2014). The examination found that organizations that got portable managing an account credit administrations detailed development in deals, income and number of representatives utilized.

Accessing low interest credit is considered an important factor in increasing the performance of micro businesses (Bourke, 2014). However, the effect of mobile bank credit on profitability appears clearly negative (Leland, 2013). Similarly, access to low interest mobile bank credit further increases micro business risk-bearing abilities; improve risk coping strategies and enables consumption smoothing over time (Kamau, 2015). The level of interest rates charged on the loans by the mobile banks have negative correlation with the parameters of business performance (Bourke, 2014).

High interest rates do not reduce the financial cost, improve cash flow as well as increase profitability of the micro enterprises (Sheng, 2015). Access to credit enables micro enterprises to enhance their financial performance (Kamau, 2015). The main objective of mobile bank credit is to improve the performance of micro businesses as a result of better access to small loans that are not offered by the formal financial institutions. It is argued that insufficient access to credit by the poor just below or just above the poverty line may have negative consequences for micro businesses and overall welfare (Kalio, 2014).

Worldwide, today’s consumers are used to having technology integrated into most aspects of their work and personal lives; and banking is no exception (Munaye, 2014). To respond to changing customer expectations, banks, credit unions and other financial institutions have incorporated mobile technology into consumers’ banking experiences (Porteous,
Access to mobile bank loans by micro entrepreneurs is necessitated by the increasing number of people in developing countries with mobile phones more than bank accounts (Hernandez, 2014). In 2007, for instance, there were over 3.3 billion phone users, and close to 60% of the subscribers lived in the developing world (Merton, 2013). Many entities thus with a global development focus had to turn to the mobile phone as a potential platform for delivering financial services to the formally unbanked (Hernandez, 2014).

The formally unbanked populace is limited in ability to take out loans, maintain savings or make remote payments, and these constraints can inhibit their economic opportunities (Porteous, 2014). These obstacles could be partially overcome if financial services were delivered over mobile phones (Karemame, 2013). In most of the countries, mobile phone-enabled banking services are already available and are increasingly being targeted at unbanked populations that are largely low-income and low-literate. However, there seem to be a number of issues, which prevent this population from meaningfully adopting and using existing services (Suri, 2015).

Mobile banking has significantly increased the accessibility of financial services to the informal sector in Kenya (Rogers, 2014). In 2011, Kenya became one of the first countries in Africa to introduce mobile loans (certified government auditing professional CGAP, 2014). M-Shwari, a subsidiary of the market-leading Kenyan telecoms company Safaricom in partnership with the Commercial Bank of Africa (CBA) dominates the market with one in five Kenyan adults holding an account (Mwanza, 2014). There are more than 100 mobile-based lenders currently operating in east Africa (CGAP, 2014).

2.4 Mobile Banking Convenience on Performance of Micro Businesses

2.4.1 Accessibility of Account Information/Efficiency

The growth of mobile money services is a blessing to microenterprises, which otherwise could not be served well by commercial banks (Wambari, 2014). 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 (Joseph, 2015). 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 (Wong, 2015). 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, 2015)

A study on mobile money in Nigeria with insights from Kenya employed TAM to examine factors that influence a user’s intention to use mobile money (Odia, 2016). The research was based on a questionnaire survey and semi-structured interview and the results indicated that predictors of the intention to use mobile money in Nigeria included convenience, security/privacy, trust, perceived ease of use and perceived usefulness, with convenience being the most significant of all factors. A study on factors that influenced Ghanaian consumers’ acceptance and use of mobile money transfer applied self-administered questionnaire to collect data and the findings showed that perceived ease of use and perceived usefulness were found to be the most significant determinants of behavioural intention to use mobile money transfer in Ghana. Perceived trust, trialability and perceived risk were also found to significantly affect behavioural intention (Tobbin, 2015).

Time factor is one of the prime factors that in mobile banking service quality feature for the customers (Liu & Arnett, 2014). Saving time is an important factor which influences the customers’ preference to use M-banking (Beer, 2013). Using mobile banking services can ensure such transactions are timely, relatively low cost, relatively free of risk, and auditable (Caporaso, 2014). However, the recipient will need to convert the payments into cash. In effect, the costs and risk involved in handling cash are shifted from the employer to the employee (Mas & Kumar, 2014).

Banks started mobile banking with simple functions such as real time access to information about interest rates, checking account balances and computing loan eligibility. Thereafter the services are extended to online bill payment, transfer of funds between accounts and cash management services for corporate organizations (Davis, 2014). The fundamental advantage of the M-banking is the transfer of the information about the money’s worth to any place at any time with a mouse clicks distance (Dube, 2015). Small and micro businesses are among the greatest beneficiaries of using M-Pesa mobile payment in Kenya (Mohammed, 2013). Safaricom annual report (2009) shows that there were 8,650 M-Pesa agents in 2009, spread throughout the country offering the mobile payments service.

Micro business operators go to the bank less often and spend more time running their businesses (Beza, 2014). Equally, many unbanked Kenyans can now receive or send money wherever they are in the country (Wanyonyi, 2015). Larger part of the small scale business
administrators know about the utilization of the versatile instalment benefits as they are anything but difficult to utilize and require no formal preparing before use. A study on M-Pesa progress in Kenya found that Mobile transfer services were used by micro business owners because they spend less time visiting the bank and therefore create extra time in managing their businesses (Zikmund, 2014). The study also revealed that mobile banking services on money transfer were easy to use as they needed no training and were very convenient when used.

Use of mobile banking services is perceived to enhance profitability moderately (Muriuki, 2014). Similarly, a study to evaluate the multiplier effect of mobile banking services in Malawi showed that when money is injected in a region from outside and used to make purchases of goods and services produced in the region, will stimulate local sales hence better performance for local businesses (Davis, 2014). A study on mobile banking among micro businesses in Tanzania, focusing on business usage such as paying suppliers or receiving payments from customers showed some positive effect in time saved and improved logistics though there were indirect effects on liquidity (Bangens, 2015).

Openness (capacity to achieve the required administrations) is one of the primary points of interest of versatile saving money administrations (Pagani, 2015). Moreover, 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 banking services (Njenga, 2016). Additionally, in mobile banking, users’ perception on the security and trust to the payment service providers is necessary (Siau & Mallat, 2015).

Kenya recognizes that the entrepreneur in the community is a primary contributor and mobilizer of resources to develop the economy, a provider of employment for others and a stabilizing factor in society (Muema, 2015). Growth of the economy is achieved by increases in productivity and full absorption of all available resources into productive use (Gibb, 2013). Innovation is therefore a crucial part of the entrepreneurial process (Wickman, 2016). Since the late 1970s when the personal computer was introduced, an information technology (IT) revolution has been evident. Companies have networks of personal computers linked to one another, to the firm’s central computers and to their customers and suppliers (Brown, 2014). This has provided bank customers with electronic access to account information such as account balances, deposit and withdrawal of money.
Mobile phones have done even better, since they allow customers access to the internet through their phones wherever they may be since mobile phones are portable (Besley & Brigham, 2005).

### 2.4.2 Mobile Transactions Safety

Mobile transactions safety involves; lack of delay of transactions, completeness of the transactions, customer identification and confidentiality of the customer information (Mallat, 2015). The users of mobile banking transactions are more concerned on security and safety which revolves in the use of PIN and security code (Nam, Yi, Lee & Lim, 2015). In addition, the key requirement for any electronic financial transaction is confidentiality, authentication, data integrity and non-reputation. Other security features include users’ anonymity and privacy (Foley, 2013).

A study done in Pakistan on relationship between customer satisfaction and mobile banking administered questionnaires to 230 bank employees and 230 bank customers and the findings revealed that customers concerns about security, authenticity and reliability of technology were significant (Saleem & Rashid, 2014). 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. The demand of high M-banking usage depends on wide network coverage and quality network connections (Kithinji, 2016). This ensures easy, speedy and cheap access of mobile banking transactions affordable to all prospective partakers. With wide network coverage and good connections new micro businesses can be opened in deep remote areas and or existing micro business owner can expand their businesses in areas which could have been unreachable without the network operation (Yousif, 2015).

A study in Tanzania showed that since introduction of mobile money services in Tanzania in 2008, there has been tremendous increase in usage of mobile money services by individuals and businesses (Finscope, 2013). About 79% of Tanzanians have access to mobile phones, and 35% are registered users of mobile money services (Finscope, 2013). It is evident that mobile money services have become a key tool for bringing financial services to the un-banked. It was 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 (Mbogo, 2014). However, only 21% of SMEs use mobile money services to access financial services.
(Finscope, 2013) and 21% of MPESA 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, 2015).

Studies show that losing a mobile phone does not mean loss of one’s money because one’s mobile money account cannot be accessed without a correct personal identification number (PIN) (Bwisa, 2014). Mobile banking proves to be both convenient and safe service that users carry around their electronic money and can withdraw cash any time at a minimal fee without inconveniences. For one to use mobile payment system, one should strongly believe in the safety and trust in the providers of the payment system (Leong, 2015). According to Leong (2015), users of any payment system are primarily concerned with the security and safety of mobile banking payment transactions. Safety means lack delay or incompleteness of a transaction and non-disclosure of private information payment transactions (Swatman, 2013). These security and privacy issues are ensured through the use of the secret code for personal identification for every single M-banking transaction (Lewis, 2013).

A study conducted in Kenya recommended that customer information confidentiality, transaction authentication, data integrity and security were the sole requirements for any financial transaction in mobile banking environment (Cooper, 2015). Mobile money transfer has inherent risks, just like all other retail payments systems of; privacy and security, money laundering, user protection, fraud, credit and liquidity (Merritt, 2013). In addition, mobile money services are minimizing the inherent risks in cash-based payment services, thereby increasing openness in cash flows and enabling risk management through the regulation of the payment systems (Schinder, 2016).

Other non-bank key players involved in mobile payments, like telecom firms’, their agents and technology vendors may pose more risks (Nam, 2014). Nam noted existence of unique risks to telecom firms which may not be detected or monitored by the financial institutions and their regulators due to experience limitations. According to Nam, multiple regulations exercised on banking and telecommunications sectors are to blame because they operate autonomously and have limitations of joint cooperation to provide effective oversight on mobile money transfers. Nam recommends the need to merging the two distinct sectors to form an effective joint regulatory environment across all sectors involved in mobile money transactions.
2.4.3 Mobile Banking Transaction Cost

Transaction costs is the total explicit and implicit costs of participants in financial transactions (Adams, 2013). Both lenders and borrowers incur transaction costs. The bank supervision report asserts that the cost of doing business for banking institutions ultimately affects the lending rates (CBK, 2013). However, the access through Innovation subgroup of the G20 Financial Inclusion expert group-ATISG (2014) report contents that technology innovations have the capacity to reduce costs, increase efficiency as well as reach the unreached or unbanked populations.

2.4.4 Cost Effectiveness

According to Kuo (2013), found that mobile banking services are treated as one of the information systems of the banks that are important and able to produce financial information, which include check balances, transfer funds, credit card billing information, payment of bills, and so on through an internet without auxiliaries cable. A study done by Suri (2014) concluded that in Indonesia Mobile banking services are services that are safe to use so that the service is widely used by many people in Indonesia. Kalio (2013) on the perception of bank customers towards electronic banking in Pakistan, concluded that banking customers assume that the gains in using mobile banking service that is on time and is more likely to be able to minimize the transaction costs incurred. According to Jenny (2016), in conducting activities either through electronic banking transactions, will not be separated from the cost of the transaction.

According to Folley (2013), argues that transaction costs are costs incurred in the transaction where the cost is used to determine and enforce the rights of ownership of the goods and services. Transaction costs influence the actions of an enterprise and the pattern of efforts to act in the market. Transaction costs can be seen from the level of efficiency of an economic activity. Kamau (2015) analysed the impact of mobile banking in Kenya and found that the M-PESA service, which is a mobile phone-based money transfer system in Kenya, may reduce transaction costs. Jensen (2015) contend that the mobile banking transactions will increase each year which is backed by innovative services of the banking industry.

According to Huang (2014), the future of financial transactions is forecast to be the most popular banking product accessed through mobile phones. The transaction value will be doubled each year throughout the world and became a four-fold increase year after the year.
A research by Karemane (2013) predicts users of banking services via the mobile telecommunications will increase 10-fold in 2030. It is predicted that more than 2 billion subscribers will also utilize the services and banking products through mobile communication equipment. China, India, the Philippines and several countries in Western Europe, has market users of mobile banking services and the largest in the world. Mobile banking technology has led to banks and financial institutions to improve the effectiveness of distribution channels by reducing transaction costs and increasing the speed of service.

Mobile banking technology allows consumers to access financial services in a more convenient, lower cost of bills and save time in managing their finances (Keynes, 2013). Due to the advantages for both suppliers and consumers in the financial markets, banking services electronically has grown exponentially in the United States. Kuuya (2015) reported that the average number of mobile technology used by the United States increased from an average of 1.4 in 1995 to 4 in 2014, while the average number of non-electronic technology has not changed during the same period. It is proved that the development of information technology especially mobile banking can affect the activity of SMEs (Zeng, 2015). In this case the mobile banking is a banking service through mobile media allowing customers to conduct transactions anywhere and anytime. Thus, the utilization of these services can have a positive impact for entrepreneurs so that they can be more efficient in making payments or know their account balance, in terms of efficiency can be seen in terms of time and cost (Joseph, 2015).

2.4.5 Business Operation Expenses

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, 2014). It has been argued that technology innovations have the capacity to reduce costs, increase efficiency (value addition to existing clients) as well as reach the unreached or unbanked populations (AT1SG, 2014). The Transaction Cost Innovation Theory claims that the dominant factor of financial innovation is the reduction of transaction cost (Davidson, 2013). David asserted that it is the advancement in technology that leads to financial innovation which in turn reduces transaction costs. The transaction cost innovation theory studied the financial innovation from the perspective of microscopic economic structure change (Li & Zeng, 2015).
Mobile banking is a tool to access the savings that customers have, making purchases, bill payments, and may reduce transaction costs (Kochner & Pichot, 2014). Transaction costs are divided into four types of cost: the cost of searching for information, the cost of making a contract or negotiating (bargaining costs), monitoring costs, costs of adaptation (Muftadi & Anang, 2014). According to Muftadi and Anang (2014), the things that can affect the lower the transaction costs is to increase the ability to manage information or by using the new information system and improve communication and coordination.

A study on success factors attributable to use of mobile payments by micro-business operators was based on a survey conducted through administration of questionnaires and data collected from a sample of 409 microbusiness entrepreneurs in Nairobi, Kenya (Mbogo, 2014). The study applied TAM, which was extended to include other factors to help predict success and growth in microbusinesses. Key discoveries demonstrated that comfort, availability, cost, support and security factors are identified with social aim to utilize and real utilization of the portable instalment benefits by the smaller scale organizations to improve their prosperity and development. Moreover, it was found that mobile money promotes entrepreneurship by providing a platform for development of new services and by enhancing performance of small enterprises.

Subscribers to mobile money transfers have adopted mobile banking technology because it is cheaper compared to services at the banking hall (Goldmark, 2013). Sending money through mobile phone is much cheaper than using banks and other money transfer channels like Securicor firms (Kendall, 2014). The lower transaction costs benefit is passed on to consumers (Nither, 2014). Most micro business owners have mobile handsets easy to operate and with all functionalities required in mobile banking services making the transaction costs affordable and being below what banks charge (Lim, 2016).

Nair (2015) conducted a study on consumer usage of mobile payments used six focused groups’ sessions, to examine client acceptance of a new mobile payment service. The study indicated that mobile payments complimented small value cash payments and were more compatible with digital devices and service purchases. The study, however, suggested that certain situational limitations like absence of other payment means or urgency of the service affected the benefits accruing from mobile banking payments. In the study, time, place, independence, availability, remote purchases, and lack of queue were suggested as the
benefits accruing on use of mobile payments. Further, the study indicated a number of barriers to the acceptance of mobile banking services. These include; high payment costs, complex payment procedures, limited widespread merchant acceptance, and perceived risks.

Mobile banking products allow consumers the opportunity to free themselves of many time consuming and costly activities. However, it is the interplay between mobile based financial products (such as salary payment) and the ability to withdraw cash for the system which determines the net benefit to consumers (Chakraborty, 2014). For individuals climbing the banking ladder is fundamental to greater participation in economic development (Glaessner & Klingebiel, 2013). Simply reducing the risk of crime by removing the need to carry around cash is significant. Reducing the time taken to use existing services and removing some of the associated costs can also fundamentally transform people’s lives (Frempong, 2014). Whilst there is little systematic data on the use of mobile transactions, the anecdotal evidence is powerful.

A study on transactions costs and risk sharing on MSEs in Kenya revealed a great reduction in transaction costs and argued that entrepreneurs can now conduct financial transactions over the phone without having to travel to banks (Jack & Suri, 2014). Another study on Mobile phone banking on usage experiences in Kenya found that there was a large business potential to be exploited in the Kenyan mobile banking sector (Adam, 2013). The study found that most customers accepted the role played by the mobile banking services in their daily activities.

In addition, the mode of usage is mostly influenced by missions and marketing strategies of M-Banking service providers (Kumar, 2015). According to Kumar, M-Banking users tend to use the service in many ways depending on the nature of activities and urgency, however, the “hype factor” is a unique dimension of use. The usage of mobile banking is caused by excitement and imagination originating from the M-banking utilization environment (Kim, 2013). Kim asserts that mobile banks might be better off by offering the service at lower costs to entice more customers and not focused on high charges which scare off potential customers. This way mobile banks can increase their revenue sources through increased transactions volume.
2.5 Chapter Summary

Chapter two has reviewed several studies related to the current topic and existing literature has shown that the effect of mobile technological innovation like mobile banking services depend primarily on accessibility/convenience, costs and security on the services being offered. The chapter that follows addressed the methodology of the research as applied to the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
The part was composed under the accompanying areas; research structure, populace and testing technique, information accumulation strategies, explore methodology, information investigation techniques and section rundown.

3.2 Research Design
The investigation utilized a cross sectional structure otherwise called transversal examination importance to cut over the objective populace. Cross sectional is an observational investigation that involves breaking down information gathered from a populace or an agent subset at an explicit point in time. The plan was of intrigue in light of the fact that the investigation looked to decide the relationship between the autonomous factors and execution of miniaturized scale organizations in the casual segment. The decision of the structure was predictable with Daniels (2013), who set that cross-sectional research configuration is frequently utilized in a gathering of individuals who contrast in the variable of intrigue however share different attributes, for example, financial status and instructive foundation.

3.3 Population and Sampling Design
3.3.1 Population
Target population of the study was the 1850 micro enterprise traders in Nairobi’s Gikomba market, in Kamukunjii sub County. Nairobi County has the highest number of jua kali artisans in Kenya (Kenya National Bureau of Statistics, 2016). Hence the motivation behind selecting this county to address the study questions.

3.3.2 Sampling Design
3.3.2.1 Sampling Frame
In the investigation, Slovene’s equation was connected which is irregular testing procedure used to gauge test measure. The formula is normally used when the author has no idea about a population’s behavior (Herbert, 2016) and hence the motivation in choosing Slovene’s formula in this study. It is computed as:- \( \bar{N} = \frac{N}{1 + d^2} \) where; \( \bar{N} \) = sample size, \( N \) = total population; \( d \) = degree of confidence with a desired 90% degree of confidence-
come up with a sample size of 95 participants as shown here; $1850/ (1850 \times 0.1^2) + 1 = 94.871$

3.3.2.2 Sampling Technique
The study respondents were drawn purposively to fill questionnaires. Only respondents willing to participate in the study were engaged during data collection. The study used author’s personal judgment to select the participants from the following categories of individuals: - Business owner; customer (present at any given time during the interviews); and Business assistants.

3.3.2.3 Sample Size
The study sample size was 95 participants drawn across the Gikomba market. The sample measure is predictable with Hum (2015) who expressed that, utilizing such a large number of members in an investigation is costly and uncovered increasingly number of subjects to strategy. It is likewise in accordance with Russel (2001) who saw that an investigation ought to be of a sufficient size in respect to the destinations of the examination. Russel contends that example measure must be sufficiently enormous that an impact of such greatness as to be of logical centrality will likewise be measurably critical.

3.4 Data Collection Methods
This examination utilized questionnaire as the key instrument for essential information gathering. The utilization of survey was favored as it guaranteed privacy of the members was maintained all through, it saved money and time, and it was anything but difficult to control. This was in accordance with another examination done by Bell (2013) which discovered that polls give a more noteworthy sentiment of secrecy thus promising open reactions to delicate inquiries and is free from predisposition, ensuring exactness and substantial information. The survey was perfect for this examination in light of the fact that the creator could gather data from a bigger example.

The poll contained closed ended and open-ended inquiries to inspire explicit reactions for quantitative and subjective investigation individually. A portion of the shut finished inquiries required a reaction on a five point Likert scale, appearing to what degree each factor (versatile saving money the board; versatile managing an account advances; versatile saving money accommodation; and versatile saving money exchange cost) influence execution of miniaturized scale organizations in the casual part.
The poll was sorted out into two areas. The principal area of the poll managed statistic measurements, for example, training level and age. Alternate segments involved inquiries from the three targets. As a procedure went for getting sound information from the field, the creator prepared enumerators for motivations behind poll organization.

Auxiliary information utilized distributions dependent on information from the World Values Surveys, government records, non-benefit associations (NGOs) records, media articles, and concentrates identified with the present point. Optional information created new bits of knowledge from past examinations. Reanalyzing optional information can likewise prompt sudden new revelations (Fabregues, 2014).

3.5 Research Procedures
To guarantee consistency of the instrument, a pilot ponder was directed utilizing an irregular example of 10 members from the Gikomba showcase. The idea of endeavors in the market have relatively comparable attributes. 10 people for a pilot contemplate depends on Kathuri and Pals, (2013) recommendation that it is the most modest number that yields significant outcomes in information investigation in a review inquire about. As per Sekeran (2013) a pilot test is essential for testing the dependability of information accumulation instruments. Pilot study will be done to evaluate the reasonableness of survey things and meeting plan, the wording of the inquiries and the consistency in the reactions.

The pilot results were exposed to the spilt-half examination strategy as per Cronbach's recipe; \( \alpha = (N*r/1 + (N-1)*r) \)

Where \( N \) = number of items and \( r \) is the average inter-item correlation among the items.

The pilot results achieved a reliability coefficient of 0.7 which meant that the questions used in the questionnaire were relevant and easy to tackle by the participants. As indicated by Sekeran (2013) a pilot test is fundamental for testing the unwavering quality of information gathering instruments. Pilot consider was along these lines directed to test shortcomings in structure and instrumentation to give intermediary information to choose of an example.

For motivations behind legitimacy of information, the examination connected face legitimacy. This was finished by asking members whether they thought the inquiries were all around built and whether they were in accordance with the examination destinations. Every one of the members concurred consistently that the inquiries were applicable and
non-uncertain. Substance and build legitimacy were utilized to assess the surmisings dependent on the outcomes from the instruments. To set up substance and develop legitimacy the specialist looked for master assessment concerning the examination instruments from the boss at United States International University (USIU). The manager was persuaded by the poll.

3.6 Data Analysis Methods
Qualitative data was analyzed using content analysis method. This approach was appropriate for the study because it allowed for deep, sense, detailed accounts in changing conditions. Qualitative data was suitable for this study because the research was conducted within the environment where mobile banking services occurred i.e. Gikomba market. To find out the effect of mobile banking cash management; and to determine the impact of mobile banking loans on the performance of micro businesses in the informal sector the study used chi square ($\chi^2$) analysis given by the formula:

$$x = \sum (o - e)^2 / e$$

Where: o - observed values and e - expected values. Chi square was necessary in this study because it enabled to test the relationship between mobile banking cash management; mobile banking loans and performance of micro businesses at Gikomba market. To determine the impact of mobile banking convenience; and to establish the effect of mobile banking transaction cost on performance of micro businesses in the informal sector the study used Pearson’s correlation analysis method:

$$r = x = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{n\Sigma y^2 - (\Sigma x)^2}[n\Sigma y^2 - (\Sigma y)^2]}$$

Pearson’s correlation was necessary because it enabled to determine the extent of the impact of mobile banking convenience; and mobile banking transaction cost on performance of micro businesses in Gikomba market.

3.7 Chapter Summary
The section secured the strategies to be utilized to do this examination. The examination utilized a cross sectional plan to decide the relationship between the free factors and execution of miniaturized scale organizations in the casual segment at Gikomba market. Target population of the study was the micro enterprise owners in the jua kali sector in Nairobi’s Gikomba market, in Kamukunji sub County. The following section (part four) introduces the essential discoveries. It examined likewise the information gathered from the field. The part exhibits the writing checked on in connection to the essential discoveries.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter talks about research discoveries of the examination which was expected to look at the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya, reference to Jua kali craftsmen in Nairobi County. This chapter gives an itemized investigation of the discoveries introduced in two segments: The first segment (Section A) broke down respondents’ socioeconomics while the second area (Section B) analyzed; mobile banking cash management, mobile banking credit accessibility and mobile banking convenience. Coding was done by abridging responses into groups, lessening the quantity of various responses to make correlations less demanding.

4.2 General Information

4.2.1 Response Rate

The response rate achieved for this study is illustrated by Table 4.1

Table 4.1: Response Rate for the Population

<table>
<thead>
<tr>
<th>Target Population</th>
<th>95</th>
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</thead>
<tbody>
<tr>
<td>Participants available</td>
<td>95</td>
</tr>
<tr>
<td>Total response</td>
<td>68</td>
</tr>
<tr>
<td>Non – response bias</td>
<td>10%</td>
</tr>
<tr>
<td>Usable responses</td>
<td>68</td>
</tr>
<tr>
<td>Un – usable responses</td>
<td>27</td>
</tr>
<tr>
<td>Usable responses rate</td>
<td>72%</td>
</tr>
</tbody>
</table>

Table 4.1 reveals that, of the 95 participants sampled, all were present, and 95 questionnaires were administered. All the questionnaires were returned of which 68 were complete and usable. According to Baruch and Haltom (2008) when there is a difference in total returned versus usable questionnaires, researchers should utilise the number of usable questionnaires as the numerator in calculating response rate. Therefore, the response rate for this research is 72%.
4.2.2 Respondents’ Demographics

The researcher sought to find out the age of the participants, their level of education and duration they have worked as a Jua Kali Artisan I Gikomba Market.

Table 4.2: Frequency Distribution of Respondents by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>23</td>
<td>33.82%</td>
</tr>
<tr>
<td>30-39</td>
<td>33</td>
<td>48.53%</td>
</tr>
<tr>
<td>40-49</td>
<td>9</td>
<td>13.24%</td>
</tr>
<tr>
<td>Above 50</td>
<td>3</td>
<td>4.41%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Table 4.2 revealed that most of the respondents were within the age category of 30-39 years (33, 48.53%), followed by age category 20-29 (23, 33.82%). This was followed by age category 40-49 (9, 13.24%). The least percentages of respondents interviewed were in the age group 50 years and above (3, 4.41%). These discoveries are in accordance with studies directed by Wachira (2014) who noticed that most youngsters (20-35 years) in Kenya command the work showcases over all areas. Age was critical to the examination since people who grow up in the meantime are an age and regularly share a considerable lot of indistinguishable encounters from others of a similar age gathering. This depicts that age can influence uptake of mobile banking services hence performance of micro businesses in the informal sector by different generations.

Table 4.3: Frequency Distribution of Respondents by Education Level

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters holder</td>
<td>7</td>
<td>10.29%</td>
</tr>
<tr>
<td>Degree holder</td>
<td>15</td>
<td>22.06%</td>
</tr>
<tr>
<td>Diploma holder</td>
<td>27</td>
<td>39.71%</td>
</tr>
<tr>
<td>Certificate</td>
<td>19</td>
<td>27.94%</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Results in Table 4.3 shows that majority of respondents interviewed had acquired a diploma level (27, 39.71%), followed by Certificate level (19, 27.94%). 22.06% (15) of the respondents interviewed were found to have attained a bachelor’s degree (not specified). A small percentage of respondents (7, 10.29%) had a masters. This demonstrates most members in the investigation populace are either diploma holder (40%) or a certificate
holder (28%). Level of education was noteworthy to this examination in light of the fact that informed respondents have higher capacity in preparing data and can settle on substantive choices and consequently instruction can impact take-up of portable managing an account benefits henceforth execution of smaller scale organizations in the casual part.

![Pie chart showing distribution of respondents by years worked as a Jua Kali artisan in Gikomba Market.]

**Figure 4.1: Distribution of Respondents by Years Worked as a Jua Kali Artisan in Gikomba Market.**

The findings in Figure 4.1 revealed that the highest percentage of respondents (40%) had been in the Jua Kali sector for a period of between 6 and 10 years. Followed by 22% who had been in the sector for a duration of between 3 and 5 years when this study was being undertaken. 19% of the participants indicated that they had been in the Jua Kali industry for a period of less than two years with another 19% indicating they had been Jua Kali artisans for over ten years. This finding could mean that majority of the participants had a reasonable experience in the Jua Kali informal sector and could therefore provide credible information about the topic under study.

### 4.2.3 Respondents on M-banking Services

The researcher sought to know whether the target population use M-banking services; which M-banking service the targeted populace use in their business undertakings and for how long they have used the M-banking services. Respondents were asked to choose from the following list: M-Pesa, Airtel Money, Yu Cash, and Orange Money.
Figure 4.2: Respondents on M-banking Services

Figure 4.2 reveals that all the participants (100%) agreed unanimously that they use M-banking services in their business undertakings. This means that participants in the target populace have embraced technology. The findings could also mean that the target population have experienced the benefits of Mobile banking services. The findings are consistent with a study conducted by Mwania and Muganda (2015) in Kenya that found that micro enterprise owners use M-banking services for P2P (Person to person) transfer service where money is transferred from phone to phone for business or personal purposes; B2B (business to business) transfer service where money is transferred from the business to another business for goods delivered; B2C (business to customer) transfer service where money is transferred from a business for paying a loan; or C2B (Customer to business) transfer service.

Table 4.4: Frequency distribution on M-banking services

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPESA</td>
<td>50</td>
<td>74%</td>
</tr>
<tr>
<td>AIRTEL MONEY</td>
<td>18</td>
<td>26%</td>
</tr>
<tr>
<td>YU CASH</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>ORANGE MONEY</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>68</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Results in Table 4.4 above reveals that three-thirds (74%) of the respondents interviewed used M-Pesa services at the time this study was being carried out. Only 26% of the respondents indicated they used Airtel money services. This could mean that M-Pesa
services has transformed the performance of micro businesses in the informal sector in Gikomba market. The results are supported by another study conducted by Onyango (2014) that found M-Pesa leads M-banking sector by 80%, and a positive relationship between M-Pesa usage and the performance of micro and small enterprises in Kenya (Onyango, 2014).

Table 4.5: Frequency distribution on duration of the usage of M-banking services.

<table>
<thead>
<tr>
<th>Education level</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years</td>
<td>9</td>
<td>13.24%</td>
</tr>
<tr>
<td>3-5 years</td>
<td>29</td>
<td>42.65%</td>
</tr>
<tr>
<td>6-8 years</td>
<td>8</td>
<td>11.76%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>21</td>
<td>30.88%</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>1</td>
<td>1.47%</td>
</tr>
<tr>
<td>Total</td>
<td>68</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

The findings in Table 4.5 above reveal that the highest percentages (42.65%) of the participants in the target populace have used the M-banking services for a period between 3 and 5 years. 30.88% of the participants have used M-banking services for a period between 6 and 10 years when this study was being carried out. 13.24% of the participants had used M-banking services for less than two years during the time of this study. Followed closely by 11.76% of the participants who had used M-banking services for a period between 6 and 8 years. The least percentages (1.47%) of the participants had used M-banking services for over ten years. This goes to mean that majority of the micro enterprise owners in the target populace are familiar with the benefits of using M-banking services in their business undertakings.

Figure 4.3: Frequency distribution on Mobile banking contributions to the growth of micro businesses
Figure 4.3 above indicates that more than half of the participants agreed unanimously (63.24% strongly agreed, 29.41% agreed) that Mobile banking services has contributed to the growth of the business. Only a small percentage (7.35%) remained disagreed. These results could be the reason to the earlier results of this study in table 4.5 which indicated that 42.65% of the participants in the study area have embraced Mobile banking services for more than 5 years. The findings are also in line with an earlier study conducted by Chogi (2015) that found micro businesses in Kenya perceive mobile banking transactions as tools that can mediate their activities by transforming their objectives into outcomes.

4.3 Mobile-banking Cash Management on the Performance of Micro Businesses

In this section, the study aimed to find out the effect of mobile banking cash management on the performance of micro businesses in the informal sector. To achieve this, the respondents were asked to indicate their knowledge on several parameters regarding mobile banking; and to also indicate which areas mobile banking has contributed to micro business performance on a scale of 1-5. The findings are presented below.

Table 4.6: Respondents on Mobile-banking Cash Management on the Performance of Micro Businesses

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saving (depositing) into mobile money</td>
<td>66</td>
<td>97.06%</td>
</tr>
<tr>
<td>Withdrawing from mobile money</td>
<td>65</td>
<td>95.59%</td>
</tr>
<tr>
<td>Sending money</td>
<td>67</td>
<td>98.53%</td>
</tr>
<tr>
<td>Receiving money</td>
<td>51</td>
<td>75.00%</td>
</tr>
<tr>
<td>Checking account balance with the bank</td>
<td>43</td>
<td>63.24%</td>
</tr>
<tr>
<td>Checking account balance in the mobile money transfer account</td>
<td>40</td>
<td>58.82%</td>
</tr>
<tr>
<td>Paying bills</td>
<td>39</td>
<td>57.35%</td>
</tr>
<tr>
<td>Knowing when I receive deposit into the bank</td>
<td>31</td>
<td>45.59%</td>
</tr>
<tr>
<td>Knowing when I receive deposit into mobile money</td>
<td>29</td>
<td>42.65%</td>
</tr>
<tr>
<td>Viewing recent mobile money transactions</td>
<td>31</td>
<td>45.59%</td>
</tr>
<tr>
<td>Buying airtime through Mobile Money</td>
<td>41</td>
<td>60.29%</td>
</tr>
</tbody>
</table>

Table 4.6 reveals that the highest percentage (98.53%) of the respondents stated that mobile banking helped them in sending money; saving/depositing money (97.06%); withdrawing money from mobile bank account (95.59%); receiving money (75.00%); Checking account
balance with the bank (63.24%); and paying bills (57.35%). The highest percentage as indicated by table 4.6 is 98.53% (sending money) which could mean that mobile banking services has enhanced micro businesses by minimising cost of sending money via traditional means which is tedious and involves logistical costs.

Table 4.7: Respondents on key areas mobile banking cash management has contributed to business performance

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payments to suppliers</td>
<td>17.65%</td>
<td>0.00%</td>
<td>5.88%</td>
<td>20.59%</td>
<td>55.88%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>0</td>
<td>4</td>
<td>14</td>
<td>38</td>
<td>68</td>
</tr>
<tr>
<td>Rent payments</td>
<td>5.88%</td>
<td>11.76%</td>
<td>1.47%</td>
<td>29.41%</td>
<td>51.47%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>20</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>Pay salaries</td>
<td>1.61%</td>
<td>8.06%</td>
<td>8.06%</td>
<td>27.42%</td>
<td>54.84%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>17</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>Buy business goods and supplies</td>
<td>2.94%</td>
<td>4.41%</td>
<td>8.82%</td>
<td>29.41%</td>
<td>54.41%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>20</td>
<td>37</td>
<td>68</td>
</tr>
<tr>
<td>Receive money from another dealer/customer</td>
<td>4.41%</td>
<td>2.94%</td>
<td>10.29%</td>
<td>20.59%</td>
<td>61.76%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>14</td>
<td>42</td>
<td>68</td>
</tr>
<tr>
<td>Deposit money into mobile phone account</td>
<td>5.88%</td>
<td>4.41%</td>
<td>2.94%</td>
<td>25.00%</td>
<td>61.76%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>17</td>
<td>42</td>
<td>68</td>
</tr>
<tr>
<td>Withdraw money from mobile phone</td>
<td>2.94%</td>
<td>4.41%</td>
<td>5.88%</td>
<td>26.47%</td>
<td>60.29%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>18</td>
<td>41</td>
<td>68</td>
</tr>
<tr>
<td>Pay business bills</td>
<td>2.99%</td>
<td>7.46%</td>
<td>1.49%</td>
<td>25.37%</td>
<td>62.69%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>17</td>
<td>42</td>
<td>68</td>
</tr>
<tr>
<td>Repay loans</td>
<td>4.62%</td>
<td>3.08%</td>
<td>4.62%</td>
<td>24.62%</td>
<td>63.08%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>41</td>
<td>68</td>
</tr>
<tr>
<td>As a savings facility</td>
<td>5.97%</td>
<td>2.99%</td>
<td>5.97%</td>
<td>26.87%</td>
<td>58.21%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>18</td>
<td>39</td>
<td>68</td>
</tr>
<tr>
<td>Insurance premiums remittances</td>
<td>4.48%</td>
<td>5.97%</td>
<td>7.46%</td>
<td>29.85%</td>
<td>52.24%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>20</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>Access bank loans</td>
<td>0.29%</td>
<td>1.47%</td>
<td>5.88%</td>
<td>25.00%</td>
<td>57.35%</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>17</td>
<td>39</td>
<td>68</td>
</tr>
</tbody>
</table>

Table 4.7 above shows that three thirds 76.47% (50.88% strongly agreed, 20.59% agreed) of the participants stated that payments to suppliers through M-banking services has enhanced cash management hence contributing to business performance. 17.65% strongly disagreed, while 5.88% of the participants remained undecided. The results could mean that mobile banking services has enabled micro businesses in the study area to plan for future stocks and constant supply of raw materials as well as goo relationship between them and suppliers. Further findings revealed that 80.88% (51.47% strongly agreed, 29.41 agreed) stated that rent payments through M-banking services has enhanced cash
management hence contributing to business performance. A small percentage 17.64% disagreed (5.88% strongly disagreed, 11.76% disagreed) while 1.47% remained undecided. This goes to mean that micro entrepreneurs in the study area are giving their businesses full time attention due minimal movement to access banking services to pay bills. In addition, the results in table 4.7 show that the highest percentage of participants (82.26%) (54.84% strongly disagreed, 27.42% disagreed) stated that paying of salaries through M-banking services has enhanced cash management hence contributing to business performance. Only 9.67% of the participants disagreed and 8.06% remained neutral. The results are supported by another study conducted by Chogi (2015) that found micro businesses in Kenya perceive mobile phones financial transactions as tools that can mediate their activities by transforming their objectives into outcomes. According to Chogi, this in turn has an effect on micro entrepreneurs’ profitability and productivity.

As per the results in Table 4.7 above, more than three-thirds 83.82% (54.41% strongly disagreed, 29.41% disagreed) of the participants interviewed stated that Buying of business goods and supplies through M-banking services has enhanced cash management hence contributing to business performance. Only a small percentage (7.35%) disagreed and 8.82% remained undecided. Moreover 82.35% (61.76% strongly agreed, 20.59% agreed) stated that receiving money from another dealer/customer through M-banking services has enhanced cash management hence contributing to business performance. 7.35% disagreed while 10.29% remained undecided.

The results could mean that most micro entrepreneurs have embraced mobile banking services. The discoveries are in accordance with an examination directed by Wambari (2016) that found the selection of portable managing an account had empowered small scale organizations to build their deals in this manner prompting enhanced monetary execution. Further results indicate that more than three thirds 86.76% (61.76% strongly agreed, 25.00% agreed) stated that depositing money into mobile phone account through M-banking services has enhanced cash management hence contributing to business performance. Only 10.29% disagreed and 2.94% were undecided. This could mean that M-banking services has tapped the unbanked population in the informal sector. A study done by Odhiambo (2015) found that M-Shwari service allows micro business owners to deposit and withdrawal money in their accounts as well as to send money using mobile banking technology.
It is also clear from Table 4.7 above that 88.06% (62.69% strongly agreed, 25.37% agreed) stated that paying of business bills through M-banking services has enhanced cash management hence contributing to business performance. Only 10.45% disagreed and 1.49% remained undecided. Further results indicate that 85.08% (58.21% strongly agreed, 26.87% agreed) stated that as a savings facility M-banking services has enhanced cash management hence contributing to business performance, 8.96% disagreed while only 5.97% remained undecided. The findings are in line with a study conducted by Mbogo (2016) that found Mobile banking transactions provided micro businesses with a means through which they can reduce their operating costs as well as increase their ability to manage cash and extend their business networks thus enabling them to increase their performance.

4.4 Mobile banking Credit Accessibility on Performance of Micro businesses
Respondents were asked to indicate their level of agreement/disagreement on the effect of Mobile-banking credit accessibility on performance of micro businesses on a scale of 1-5. The results are presented in table 4.8 below.
Table 4.8: Respondents on Mobile banking Credit Accessibility and Performance of Micro businesses.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am able to access a short-term loan on my mobile phone account</td>
<td>8.82%</td>
<td>2.94%</td>
<td>4.41%</td>
<td>39.71%</td>
<td>44.12%</td>
<td>100% 68</td>
</tr>
<tr>
<td>I am able to access cheap loans from a variety of mobile banking providers via my mobile phone</td>
<td>4.41%</td>
<td>4.41%</td>
<td>2.94%</td>
<td>44.12%</td>
<td>44.12%</td>
<td>100% 68</td>
</tr>
<tr>
<td>I am able to manage my credit report on my phone</td>
<td>1.47%</td>
<td>4.41%</td>
<td>8.82%</td>
<td>44.12%</td>
<td>41.18%</td>
<td>100% 68</td>
</tr>
<tr>
<td>Budgeting and planning for the acquired loan is easy on phone</td>
<td>1.49%</td>
<td>5.97%</td>
<td>11.9%</td>
<td>40.30%</td>
<td>40.30%</td>
<td>100% 68</td>
</tr>
<tr>
<td>I am able to borrow loans to boost my business.</td>
<td>1.47%</td>
<td>5.88%</td>
<td>5.88%</td>
<td>41.18%</td>
<td>45.59%</td>
<td>100% 68</td>
</tr>
<tr>
<td>The future of my business is secure because my money is secure with Mobile banking</td>
<td>5.88%</td>
<td>2.94%</td>
<td>13.2%</td>
<td>39.71%</td>
<td>38.24%</td>
<td>100% 68</td>
</tr>
<tr>
<td>Mobile banking enables me to manage my account balance and plan for the future of business.</td>
<td>4.41%</td>
<td>8.82%</td>
<td>8.82%</td>
<td>33.82%</td>
<td>44.12%</td>
<td>100% 68</td>
</tr>
<tr>
<td>Loan application period has become shorter</td>
<td>8.82%</td>
<td>8.82%</td>
<td>4.41%</td>
<td>41.18%</td>
<td>36.76%</td>
<td>100% 68</td>
</tr>
<tr>
<td>I am able to repay my loans in real time</td>
<td>11.76%</td>
<td>8.82%</td>
<td>2.94%</td>
<td>39.71%</td>
<td>36.76%</td>
<td>100% 68</td>
</tr>
</tbody>
</table>

Table 4.8 reveals that the highest percentages 83.83% (44.12% strongly agreed, 39.71% agreed) stated that they were able to access a short-term loan on their mobile phone account, 11.76% disagreed and 4.41% remained undecided. The results could mean that micro businesses in the study area will continue thriving if they continue embracing mobile banking services. This is supported by Hajri (2014) who found that Mobile finance assists SMEs to save money on mobile bank accounts and get short term credit, which enable them to deliver goods and services to their clients.

Further findings indicate that more than three thirds 88.24% (44.12% strongly agreed, 44.12% agreed) stated that they were able to access cheap loans from a variety of mobile banking providers via their mobile phone, 8.82% disagreed while 2.94% were undecided. Accessing low interest credit is considered an important factor in increasing the performance of micro businesses (Bourke, 2014). However, a study by Leland (2013) does not support these findings. Leland contends that access to low interest mobile bank credit increases micro business risk-bearing abilities. Additionally, table 4.8 above shows that the
highest percentage 87.30% (41.18% strongly agreed, 44.12% agreed) stated that they were able to manage credit report on their phones, 5.88% disagreed and 8.82% remained undecided. This could mean that the Micro businesses in the study area are able to repay their loans without default. Similarly, a study done by Kalio (2013) found that the amount of loans is significantly and positively related with performance of micro businesses.

The results also reveal that 80.60% (40.30% strongly agreed, 40.30% agreed) stated that budgeting and planning for the acquired loan was easy on phone, 7.46% disagreed and 11.9% remained neutral. This is in line with a study conducted by Mutua (2014) that found M-banking credit loan allows micro entrepreneurs to innovate, improve efficiency, expand to new markets, and provide millions of jobs. Further, about three thirds of the participants 77.94% (44.12% strongly agreed, 33.82% agreed) stated that Mobile banking enables them to manage their account balance and plan for the future of business. Only a small percentage 13.23% disagreed and 8.82% remained undecided. This means that micro entrepreneurs in the study area are in a position to access unsecured loans more than before the M-banking innovation. More results show that over three-thirds 77.94% of the participants stated that loan application period has become shorter, 17.04% disagreed while 4.41% remained undecided.
4.5 Mobile Banking Convenience on Performance of Micro Businesses

Respondents were asked to indicate their level of agreement/disagreement on the effect of Mobile banking convenience on performance of Micro businesses.

Table 4.9: Respondents on Mobile banking Convenience and Performance of Micro businesses.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SD</th>
<th>D</th>
<th>U</th>
<th>A</th>
<th>SA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time taken to transact business with Mobile banking is short</td>
<td>14.7%</td>
<td>0.00%</td>
<td>1.47%</td>
<td>41.1%</td>
<td>42.6%</td>
<td>100%</td>
</tr>
<tr>
<td>Enhanced service quality in your business</td>
<td>8.82%</td>
<td>1.47%</td>
<td>4.41%</td>
<td>48.5%</td>
<td>36.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Mobile banking is easy to use and it takes a few seconds to deposit, or</td>
<td>2.99%</td>
<td>4.48%</td>
<td>5.97%</td>
<td>47.7%</td>
<td>38.8%</td>
<td>100%</td>
</tr>
<tr>
<td>withdraw money</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Mobile banking enables me to access money anytime anywhere whenever I</td>
<td>2.94%</td>
<td>5.88%</td>
<td>8.82%</td>
<td>39.7%</td>
<td>42.6%</td>
<td>100%</td>
</tr>
<tr>
<td>need it</td>
<td>2</td>
<td>3</td>
<td>6</td>
<td>27</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>Mobile banking enables me to pay for my raw materials in good time without delay</td>
<td>4.41%</td>
<td>4.41%</td>
<td>5.88%</td>
<td>45.5%</td>
<td>39.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Mobile banking is convenient for transactions</td>
<td>7.35%</td>
<td>7.35%</td>
<td>2.94%</td>
<td>42.6%</td>
<td>39.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Many other users already registered with mobile banking facility which</td>
<td>10.2%</td>
<td>2.94%</td>
<td>2.94%</td>
<td>45.5%</td>
<td>38.2%</td>
<td>100%</td>
</tr>
<tr>
<td>makes it reliable to transact</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>31</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>No additional documents needed to transact except the phone</td>
<td>1.47%</td>
<td>7.35%</td>
<td>2.94%</td>
<td>51.4%</td>
<td>36.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Mobile banking saves time compared to other service</td>
<td>1.49%</td>
<td>4.48%</td>
<td>7.46%</td>
<td>49.2%</td>
<td>37.3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4.9 shows that more than three thirds of the participants 83.70% (42.6% strongly agreed, 41.1% agreed) of the respondents stated that time taken to transact business with Mobile banking is short, 14.7% disagree while 1.47% remained undecided. This may suggest that micro enterprises in the study area will continue to thrive if this environment of mobile banking services continue in the future. Further findings indicate that 86.5% of the participants stated that Mobile banking is easy to use and it takes a few seconds to deposit, or withdraw money. 7.47% disagreed while 5.97% were undecided. Additionally, table 4.8 above revealed that more than a third of the respondents 82.3% stated Mobile banking enables them to access money anytime anywhere whenever they need it, 8.82% disagreed while another 8.82% remained undecided. This goes to mean that stock outs are not part of many micro businesses in the study are. The results are in line with findings of another
study conducted by Joseph (2015) that found mobile money services are widely being expanded to reach even the most remote areas.

More findings reveal that the highest percentage 83.7% of the participants stated that many other users are already registered with mobile banking facility which makes it reliable to transact, 13.14% disagreed while 2.94% remained neutral. This goes to mean that most micro businesses in the study area are performing better in terms of financial growth, and market performance. Finally, table 4.8 shows that 88.1% of the participants interviewed stated that no additional documents are needed to transact in M-banking except the phone, 8.82% disagreed and 2.94% were undecided.

4.6 Inferential Statistics

4.6.1 Correlation on Mobile banking Services and Performance of Micro Businesses

Pearson correlation is a measure of the strength and direction of association that exists between two variables measured on at least an interval scale. In this case the researcher used Pearson correlation to understand whether there is a relationship between Mobile banking services and performance of micro businesses in the informal sector in Kenya with reference to Jua Kali Artisans in Gikomba Market.

Table 4.10: Correlation on Mobile banking Services and Performance of Micro Businesses

<table>
<thead>
<tr>
<th></th>
<th>M-banking Services</th>
<th>Performance of Micro businesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-banking Services</td>
<td>Pearson Chi-Square</td>
<td>Performance of Micro businesses</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>408</td>
</tr>
<tr>
<td></td>
<td>.513**</td>
<td>000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>354</td>
</tr>
<tr>
<td>Performance of Micro businesses</td>
<td>Pearson Chi-Square</td>
<td>Performance of Micro businesses</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>354</td>
</tr>
<tr>
<td></td>
<td>.513**</td>
<td>376</td>
</tr>
</tbody>
</table>

**Correlation is significant at 0.01 level (2-tailed)
The results above indicate that the two variables, i.e. M-banking Services and Performance of Micro businesses have a positive linear correlation.

**4.6.2 Chi Square Test on Mobile banking Services and Performance of Micro Businesses**

A chi square tests to see whether distributions of categorical variables differ from each other. It shows any discrepancies between the expected results and the actual results. The data used in calculating a chi square statistic must be drawn from independent variables, must be random, raw, mutually exclusive, and drawn from a large enough sample. A very small chi square test statistic means there is a relationship while a very large chi square test statistic means no relationship. In this section, the researcher sought to determine the effect of Mobile banking Services on Performance of Micro Businesses in the Informal Sector in Kenya.

**Table 4.11: Chi Square Test on Mobile banking Services and Performance of Micro Businesses**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>2.000a</td>
<td>1</td>
<td>.157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correctionb</td>
<td>.000</td>
<td>1</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>2.773</td>
<td>1</td>
<td>.096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td>1.000</td>
<td></td>
<td>.500</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. 4 cells (100.0%) have expected count less than 5. The minimum expected count is .50.

*b. Computed only for a 2x2 table*

The results in Table 4.11 shows that the Likelihood Ratio value is 2.773, which is bigger than the critical values for chi square. Therefore, the results conclude that there is a significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya.

**4.7 Chapter Summary**

The findings in this chapter showed that most participants are either diploma or certificate holders as indicated by the statistics. Close to half of the respondents in the study area had
been in the Jua Kali sector for a period of between 6 and 10 years. In addition, all the participants (100%) agreed unanimously that they used M-banking services in their business undertakings. Further, the chapter indicated that M-banking Services and Performance of Micro businesses have a positive linear correlation as well as significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya. The following chapter (chapter 5) discussed the implications of the primary study and the recommendations.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter summarized the findings of the study, drew conclusions based on the findings of the study, provided recommendations as well as insight in the areas for further research. The following specific objectives guided the chapter; to find out the effect of mobile banking cash management on the performance of micro businesses in the informal sector; to determine the Impact of mobile banking credit accessibility on performance of micro businesses in the informal sector; and to determine whether mobile banking convenience influences performance of micro businesses in the informal sector.

5.2 Summary of the Study

The study established that the study response rate was 68% whereby the demographics of the participants were within the productive age (25-39) that can contribute a lot for their business performance. It was also established that more than half of the participants in the study area were either diploma or certificate holders as indicated by the statistics. The results revealed that close to half of the respondents in the study area had been in the Jua Kali sector for a period of between 6 and 10 years. In addition, it was established that all the respondents used M-banking services in their business undertakings.

Further, it was discovered that three thirds of the respondents interviewed used M-Pesa services followed by Airtel money, whereby close to half of the participants had used the M-banking services for a period between 3 and 5 years when this study was being undertaken. It was established that more than half of the participants unanimously stated that Mobile banking services had contributed to the growth of their business. In addition, it was discovered that the highest percentages of the respondents stated that mobile banking helped them in sending money; saving/depositing money; withdrawing money from mobile bank account; receiving money; Checking account balance with the bank; and paying bills.

Further, it was established that three thirds of the participants stated that payments to suppliers through M-banking services had enhanced cash management hence contributing to business performance. Similarly, it was discovered that rent payments through M-banking services has enhanced cash management hence contributing to business performance. The study also found that highest percentages of the participants that were able to access a short-term loan on their mobile phone. The discoveries also revealed that
most participants in the study area were able to budget and plan for the acquired loan easily on phone. Participants agreed unanimously that time taken to transact business with Mobile banking was short. Correlation results indicated that M-banking Services and Performance of Micro businesses have a positive linear correlation as well as significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya.

5.3 Discussion

5.3.1 Mobile Banking Cash Management on the Performance of Micro Businesses

The highest percentages of the respondents stated that mobile banking helped them in sending money; saving/depositing money; withdrawing money from mobile bank account; receiving money; Checking account balance with the bank; and paying bills. The results meant that mobile banking services has enhanced micro businesses by minimizing cost of sending money via traditional means which is tedious and involves logistical costs. The findings are consistent with a study conducted by Pousttchi (2013) that found mobile phone financial transactions provides users with a way through which they can lower their costs and save time with a cheaper and more convenient way to carry out their financial transactions. Jensen (2015) who stated that Mobile phone financial transactions assist micro businesses to reduce information asymmetries and market inefficiencies hence enabling them to achieve better performance amplified this.

Regarding the key areas on which M-banking cash management has contributed to micro enterprise performance, the following aspects stood out from the rest: - payments to suppliers; rent payments; paying of salaries; buying business goods and supplies; receiving money from another dealer/customer; deposit money into mobile phone account; withdrawing money from mobile phone; and paying business bills. This goes to mean that micro entrepreneurs in the study area are giving their businesses full time attention due minimal movement to access banking services to pay bills. The results could also mean that mobile banking services has enabled micro businesses in the study area to plan for future stocks and constant supply of raw materials as well as goo relationship between them and suppliers. This also goes to mean that most micro entrepreneurs have embraced mobile banking services. The revelations are as per an examination coordinated by Wambari (2016) that found the determination of convenient dealing with a record had enabled little
scale associations to fabricate their arrangements as such inciting improved fiscal execution.

A study done by Odhiambo (2015) found that M-Shwari service allows micro business owners to deposit and withdrawal money in their accounts as well as to send money using mobile banking technology. The results could further suggest that M-banking services has tapped the unbanked population in the informal sector. This is in line with a study done by Odhiambo (2015) that found M-Shwari service allows micro business owners to deposit and withdrawal money in their accounts as well as to send money using mobile banking technology.

Regarding the extent by which mobile banking services is prevalent in the study area, respondents agreed unanimously that they use M-banking services in their business undertakings which implies that the target population have experienced the benefits of Mobile banking services. The findings are consistent with a study conducted by Mwania and Muganda (2015) in Kenya that found that micro enterprise owners use M-banking services for P2P (Person to person) transfer service where money is transferred from phone to phone for business or personal purposes; B2B (business to business) transfer service where money is transferred from the business to another business for goods delivered; B2C (business to customer) transfer service where money is transferred from a business for paying a loan; or C2B (Customer to business) transfer service. The study has revealed that three quarters of the respondents used M-Pesa services at which goes to mean that M-Pesa services has transformed the performance of micro businesses in the informal sector in Gikomba market. The results are supported by Onyango (2014) that M-Pesa leads the M-banking sector by 80%, and that there is a positive relationship between M-Pesa usage and the performance of micro and small enterprises in Kenya. It was also discovered that the more than half of the participants in the target populace have used the M-banking services for a period between 3 and 5 years which goes to mean that majority of the micro enterprise owners in the target populace are familiar with the benefits of using M-banking services in their business undertakings.

The existing empirical evidence has noted that firms with good cash management systems are also able to make any investments decisions needed to compete. For instance, Shaban (2008) conducted a study on factors affecting performance of small sized businesses in Gaza, Palestine and found that the main issues affecting business performance was cost of
transaction, time management and money safety. Auma (2014) did a similar study in Kenya focusing on micro enterprises in Nairobi, citing that there was an increase in the number of stalled enterprises due to problems such as high cost of transaction and cash flow management. Mwania and Muganda (2015) stated that effective use of Mobile banking services has led to increased revenues and increased access to financial services by the general population.

5.3.2 Mobile Banking Credit Accessibility on Performance of Micro Businesses

The findings discovered that more than three thirds of the micro businesses in the study area were able to access a short-term loan on their mobile phone account. The results mean that micro businesses in the study area will continue thriving if they continue embracing mobile banking services. This is supported by Hajri (2014) who found that Mobile finance assists SMEs to save money on mobile bank accounts and get short term credit, which enable them to deliver goods and services to their clients. The results are supported by a study conducted by Wanambisi (2013) that established that loan disbursement through mobile phones is instant allowing users to bypass formalities in the commercial banking systems.

Further results established that the highest percentage of micro businesses were able to access cheap loans from a variety of mobile banking providers via their mobile phone. The literature review has stated that accessing low interest credit is considered an important factor in increasing the performance of micro businesses (Bourke, 2014). However, a later recent study by Leland (2015) does not support these findings. Leland contends that access to low interest mobile bank credit increases micro business risk-bearing abilities.

Additionally, three thirds of the micro businesses were able to manage credit report on their phones. This could mean that the Micro businesses in the study area are able to repay their loans without default. To support these findings, another study done by Kalio (2013) found that the amount of loans is significantly and positively related with performance of micro businesses.

It was also established that budgeting and planning for the acquired loan was easy on phone. This is in line with a study conducted by Mutua (2014) that found M-banking credit loan allows micro entrepreneurs to innovate, improve efficiency, expand to new markets, and provide millions of jobs. Further, about three thirds of the participants were able to manage
their account balance and plan for the future of their businesses through M-banking services. This means that micro entrepreneurs in the study area are in a position to access unsecured loans more than before the M-banking innovation. It was also discovered that loan application period has become shorter. The results are amplified by a similar study conducted by Wanambisi (2013) that established that loan disbursement through mobile phones is instant allowing users to bypass formalities in the commercial banking systems.

The study has established that participants in the study area are able to borrow loans at the comfort of their businesses to boost business. What is more, the study has shown that mobile banking enables SMEs to manage their account balance and plan for the future of the business. Surveys done in less urban areas of Ghana on business related calls and expenses related to such calls was conducted by Razak (2013) showing that mobile phone ownership increased access to small loans markets, contributed to efficiency in conducting business. Raddi (2013) contends that mobile banking can have a number of useful benefits to micro businesses which include access to financial services like loans and making deposits and savings, accessing the formal banking sector through mobile money services and many others.

The existing literature has stated that mobile banking loan services assist microenterprises to pay for their insurance premiums, accumulate assets and obtain credit (Hajri, 2014). Mobile finance assists SMEs to save money on mobile bank accounts and get credit which enable small scale entrepreneurs to deliver goods and services to their clients. The improvement in service delivery enhances their business transactions. The literature review has found that unsecured mobile loans are helping to boost millions of micro, small and medium enterprises (MSMEs) across east Africa.

5.3.3 Mobile Banking Convenience on Performance of Micro Businesses

The study established that more than three thirds of the participants of the respondents stated that time taken to transact business with Mobile banking was short which could mean that micro enterprises in the study area will continue to thrive if this environment of mobile banking services continue in the future. Further findings discovered that Mobile banking was easy to use and it takes a few seconds to deposit, or withdraw money. In addition, the study found that more Mobile banking enabled micro businesses in the study area to access money anytime anywhere whenever they need it. This goes to mean that stock outs are not part of many micro businesses in the study are.
The results are amplified by the findings of another study conducted by Joseph (2015) that found mobile money services are widely being expanded to reach even the most remote areas. The empirical evidence has established that though mobile banking transactions, 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, 2015). A study conducted by Odia (2016) on mobile money in Nigeria with insights from Kenya employed technology acceptance model (TAM) to examine factors that influence a user’s intention to use mobile money. The research was based on a questionnaire survey and semi-structured interview and the results indicated that predictors of the intention to use mobile money in Nigeria included convenience, security/privacy, trust, perceived ease of use and perceived usefulness, with convenience being the most significant of all factors (Odia, 2016).

The study also reveals that many other users are already registered with mobile banking facility, which makes it reliable to transact. It also noted that there are no additional documents needed to transact in mobile banking except the phone. This goes to mean that most micro businesses in the study area are performing better in terms of financial growth, and market performance. Finally, the discoveries show that no additional documents are needed to transact in M-banking except the phone. The findings are consistent with a study conducted by Caporaso (2014) that found using mobile banking services can ensure such transactions are timely, relatively low cost, relatively free of risk, and auditable. The existing literature review has found that time factor is one of the prime factor and a quality feature in mobile banking service for the customers. Saving time is an important factor which influences the customers’ preference to use M-banking. Using mobile banking services can ensure such transactions are timely, relatively low cost, relatively free of risk, and auditable (Caporaso, 2014). However, the recipient will need to convert the payments into cash. In effect, the costs and risk involved in handling cash are shifted from the employer to the employee (Mas & Kumar, 2014).

The fundamental advantage of the M-banking services is the transfer of the information about the money’s worth to any place at any time with a mouse clicks distance. According to Mohammed (2013), small and micro businesses are among the greatest beneficiaries of using M-Pesa mobile payment in Kenya. Safaricom annual report (2009) shows that there
were 8,650 M-Pesa agents in 2009, spread throughout the country offering the mobile payments service. Mobile transactions safety involves; lack of delay of transactions, completeness of the transactions, customer identification and confidentiality of the customer information (Mallat (2015).

5.4 Conclusions

5.4.1 Mobile Banking Cash Management on the Performance of Micro Businesses

It is safe to conclude that M-banking Services and Performance of Micro businesses have a positive linear correlation as well as significant association between Mobile banking services and performance of micro businesses in the informal sector in Kenya. The study established that mobile banking helps micro businesses in sending money, saving/depositing money, and withdrawing money from mobile bank account, receiving money, checking account balance with the bank and paying bills. The study has found that payments to suppliers through M-banking services has enhanced cash management hence contributing to business performance. It is clear from the study findings that rent payments through M-banking services has enhanced cash management hence contributing to business performance. It is also safe to say that paying of salaries through M-banking services has enhanced cash management hence contributing to business performance. Literature review has found that Cash-flow management are key bottlenecks for micro and small enterprises operations.

5.4.2 Mobile Banking Credit Accessibility on Performance of Micro Businesses

Based on the results of this study, micro businesses in the study area will continue thriving if they continue embracing mobile banking services. In addition, accessing low interest credit is considered an important factor in increasing the performance of micro businesses. It is safe to conclude that due to low interest rates of mobile banking loans, Micro businesses in the study area are able to repay their loans without default. In addition, budgeting and planning for the acquired loan is easy on phone. This means that micro entrepreneurs in the study area are in a position to access unsecured loans more than before the M-banking innovation. Literature review contended that lack of access to financial resources has been seen as one of the reasons for the slow growth of SMEs.

5.4.3 Mobile Banking Convenience on Performance of Micro Businesses

The study concludes that 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 and mobile money services are widely being expanded to reach the rural areas. It is clear from the study that time taken to transact business with Mobile banking is short and it takes a few seconds to deposit or withdraw money. Micro enterprises in the study area will continue to thrive if this environment of mobile banking services continue in the future. Most micro businesses in the study area are performing better in terms of financial growth, and market performance.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Mobile Banking Cash Management on the Performance of Micro Businesses

Cash-flow management are key bottlenecks for micro and small enterprises operations. The goal of Cash flow management is to manage the cash balances of an enterprise in such a way as to maximize the availability of cash not invested in fixed assets or inventories and to do so in such a way as to avoid the risk of insolvency. Mobile banking services should be aimed to reduce the time it takes to collect the cash that is owed to a firm. Some of the sources of time delays are mail float, processing float, and bank float. Cash management should be directed among other things to decrease the length and impact of these "float" periods. To achieve this, the mobile banking services need to offer diverse services ranging from account information, by alerting customers on the updates and transactions on their account through their phones in real time.

5.5.1.2 Mobile Banking Credit Accessibility on Performance of Micro Businesses

Mobile banking loan services assist microenterprises to pay for their insurance premiums, accumulate assets and obtain credit. Mobile banking speeds up the flow of goods and services, create conducive atmosphere for investment and above all security. The mobile banking platform should offer more unsecured mobile loans to help boost upcoming micro, small and medium enterprises. Mobile banking services should be aimed to increase financial accessibility for both the banked and the unbanked populations in the informal sector in Kenya.

5.5.1.3 Mobile Banking Convenience on Performance of Micro Businesses

Time factor is one of the prime factors that in mobile banking service quality feature for the customers. Saving time is an important factor which influences the customers’
preference to use M-banking. Mobile banking services should ensure such transactions are timely, relatively low cost, relatively free of risk, and auditable. To achieve this, this study recommends that the costs and risk involved in handling cash should be shifted to the service providers to enhance development of Micro businesses.

5.5.2 Recommendations for Further Studies

The study targeted Jua Kali artisans at Gikomba market in Nairobi, which makes it impossible to generalize the findings. The study recommends a comparative study to determine the influence of mobile banking services on performance of micro businesses in the informal sector in Kenya. Additionally, the study utilized a cross sectional research design also known as transversal which sought to determine the association between the independent variables and performance of micro businesses in the informal sector. The study recommends a phenomenological approach which is particularly effective at bringing to the fore the experiences and perceptions of individuals from their own perspectives. It will help Micro entrepreneurs in the informal sector to illuminate the specifics and identify phenomena through how they are perceived by the actors in a situation. The study also recommends more mixed research method designs for impact evaluations, as qualitative data can enable a richer understanding of how and why mobile banking services can influence performance of micro enterprises in the informal sector.
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APPENDICES

APPENDIX I: LETTER TO THE PARTICIPANTS

Dear Sir/Madam,

RE: REQUEST FOR PARTICIPATION IN A RESEARCH STUDY

I am a final year student undertaking master’s degree in business administration (MBA) at United States International University - Africa. I am currently undertaking a research on “Influence of Mobile Banking Services on Performance of Micro Businesses in The Informal Sector in Kenya: A Case Study of Jua Kali Artisans in Nairobi County”

I will be grateful if you could spare sometime from your busy schedule and fill in the questionnaire provided. All the information provided will be purely used for academic purposes and your identity will be treated with utmost confidentiality.

Thank you for your cooperation.

Yours faithfully,

Faith Mutio
P.O BOX 67121 – 00100
Tel. +254721170001
Nairobi, Kenya
APPENDIX II: QUESTIONNAIRE

TOPIC: INFLUENCE OF MOBILE BANKING SERVICES ON PERFORMANCE OF MICRO BUSINESSES IN THE INFORMAL SECTOR IN KENYA: A CASE STUDY OF JUA KALI ARTISANS IN NAIROBI COUNTY.

This questionnaire is administered on jua kali artisans in Gikomba market, Nairobi County on influence of mobile banking services.

The information to be given in this questionnaire will be confidential and purely for academic purposes.

The Questionnaire aims to: - find out the effect of mobile banking cash management on the performance of micro businesses in the informal sector; determine the Impact of mobile banking loans on performance of micro businesses in the informal sector; determine whether mobile banking convenience influences performance of micro businesses in the informal sector; and establish the effect of mobile banking transaction cost on performance of micro businesses in the informal sector.

SECTION A: RESPONDENTS DEMOGRAPHICS

*(Fill in the blank spaces and tick once in the below given choices of all questions)*

1. Name *(optional)*: .................................................................

2. Please indicate your age bracket?
   - 20-29 years
   - 30-39 years
   - 40-49 years
   - Above 50 years

3. Gender: Male
   - Female

4. Education level:
   - Masters
   - Bachelor’s degree
   - Diploma
   - Others (specify)……………………………..

5. For how long have you worked as a jua kali artisan? …........................................

67
6. Do you use M-banking service in your business? ............................................
   YES  
   NO

7. If yes, which mobile money service do you use? (Tick all appropriate)

<table>
<thead>
<tr>
<th>Serviced provider</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPESA</td>
<td></td>
</tr>
<tr>
<td>AIRTEL MONEY</td>
<td></td>
</tr>
<tr>
<td>YU-CASH</td>
<td></td>
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<tr>
<td>ORANGE MONEY</td>
<td></td>
</tr>
</tbody>
</table>

8. For how long have you used M-banking? ......................
   Less than 2 years  
   3 – 5 years  
   6 -8 years  
   8 -10 years  
   Over 10 years

9. Mobile money has contributed to the growth of my business on a scale of 1-5: (5-
   Strongly agree; 4-Agree; 3-Neutral; 2- disagree; 1- strongly disagree).

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
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</thead>
<tbody>
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</tbody>
</table>

SECTION B: MOBILE BANKING CASH MANAGEMENT

10. I have sufficient information regarding the following services through mobile
    banking (Tick alongside the services you are familiar with)

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Tick</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Saving (depositing) into mobile money</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Withdrawing from mobile money</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Sending money</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Receiving money</td>
<td></td>
</tr>
</tbody>
</table>
5. Checking account balance with the bank
6. Checking account balance in the mobile money transfer account
7. Paying bills
8. Knowing when I receive deposit into the bank
9. Knowing when I receive deposit into mobile money
10. Viewing recent mobile money transactions
11. Buying airtime through Mobile Money

10. In which areas has mobile banking cash management contributed to your business performance on a scale of 1-5: (5 - Strongly agree; 4 - Agree; 3 - Neutral; 2 - disagree; 1 - strongly disagree).

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Payments to suppliers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Pay salaries</td>
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<tr>
<td>3</td>
<td>Rent payments</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Buy business goods and supplies</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>5</td>
<td>Receive money from another dealer/customer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Deposit money into mobile phone account</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>Withdraw money from mobile phone</td>
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<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Pay business bills</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>Repay loans</td>
<td></td>
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</tr>
<tr>
<td>10</td>
<td>As a savings facility</td>
<td></td>
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<tr>
<td>11</td>
<td>Insurance premiums remittances</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Access bank loans</td>
<td></td>
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</tbody>
</table>

SECTION C: MOBILE BANKING CREDIT ACCESSIBILITY

11. What is your level of agreement/disagreement with the following statements that relate to the influence of Mobile-banking credit accessibility on performance of micro businesses on a scale of 1-5: (5 - Strongly agree; 4 - Agree; 3 - Neutral; 2 - disagree; 1 - strongly disagree).

<table>
<thead>
<tr>
<th>No.</th>
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<th>1</th>
<th>2</th>
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<th>4</th>
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</tbody>
</table>
1. I am able to access a short term loan on my mobile phone account
2. I am able to access cheap loans from a variety of mobile banking providers via my mobile phone
3. I am able to manage my credit report on my phone
4. Budgeting and planning for the acquired loan is easy on phone
5. I am able to borrow loans to boost my business.
6. The future of my business is secure because my money is secure with Mobile banking
7. Mobile banking enables me to manage my account balance and plan for the future of business.
8. Loan application period has become shorter
9. I am able to repay my loans in real time.

SECTION D: MOBILE BANKING CONVENIENCE

12. Explain the extent to which you agree or disagree with the following effects of Mobile banking on service delivery among micro businesses? (5- Strongly agree; 4-Agree; 3-Neutral; 2-disagree; 1-strongly disagree).

<table>
<thead>
<tr>
<th>No.</th>
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<th>1</th>
<th>2</th>
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<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time taken to transact business with Mobile banking is short</td>
<td></td>
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<tr>
<td>2</td>
<td>Enhance service quality in your business.</td>
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<tr>
<td>3</td>
<td>Mobile banking is easy to use and it takes a few seconds to deposit, or withdraw money.</td>
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<tr>
<td>4</td>
<td>Mobile banking enables me to access money anytime anywhere whenever I need it.</td>
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<tr>
<td>5</td>
<td>Mobile banking enables me to pay for my raw materials in good time without delay</td>
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<tr>
<td>6</td>
<td>Mobile money service is convenient for transactions</td>
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<tr>
<td>7</td>
<td>Many other users already registered with mobile banking facility which makes it reliable to transact</td>
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</tbody>
</table>
8. No additional documents needed to transact except the phone

9. Mobile banking saves time compared to other service

13. How reliable is mobile banking on a scale of 1-5: (5- Strongly agree; 4-Agree; 3-Neutral; 2-disagree; 1-strongly disagree).

<table>
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<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Real time payments to suppliers and customers</td>
<td></td>
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<tr>
<td>2.</td>
<td>Adequate Quality of services from provider</td>
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<tr>
<td>3.</td>
<td>Real time access to cash</td>
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<tr>
<td>4.</td>
<td>I have never lost money through Mobile banking</td>
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<tr>
<td>5.</td>
<td>My business has been expanding constantly after I registered Mobile banking</td>
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</tbody>
</table>

THANK YOU SO MUCH FOR YOUR TIME
## APPENDIX III: LIST OF REGISTERED MICRO ENTERPRISES IN GIKOMBA MARKET

| 1. | ALKANWOOD METAL SYSTEMS          |
| 2. | ALMAIJO AGENCY                   |
| 3. | ARKINGS INVESTMENT               |
| 4. | ASSISTIVE TECHNOLOGY             |
| 5. | BALMER SERVICES LIMITED          |
| 6. | BARRY ENTERPRISES                |
| 7. | BENN & DAWN METAL WORKS          |
| 8. | BILCONN ENTERPRISES              |
| 9. | BLAM ENTERPRISES                 |
| 10. | BLUE EAGLE VENTURES              |
| 11. | BRACEMAT AGENCIES                |
| 12. | BRAILLE MEDIA                    |
| 13. | CASSE INVESTMENTS                |
| 14. | CHECO INVESTMENTS                |
| 15. | CLEAN TONE GRAPHICS              |
| 16. | CLEANGLEN TECHNOLOGIES           |
| 17. | CLEARGLEN TECHNOLOGIES           |
| 18. | HUSTLERS SOLUTIONS               |
| 19. | HYPOTHERMIX ENTERPRISES          |
| 20. | ICON SERVICES                    |
| 21. | INTRAWORLD SOLUTIONS LIMITED     |
| 22. | ISMDES ENTERPRISES SUPPLY        |
| 23. | JAGO AGENCIES                    |
| 24. | JUGEM SHOP                       |
| 25. | JUSHAMI ENTERPRISES              |
| 26. | JZ.MUSEE SONS INVESTMENTS        |
| 27. | KARAKANA OUTLETS LIMITED         |
| 28. | KEWAMAR ENTERPRISE               |
| 29. | LEEKUNG CONSTRUCTION $ GENERAL SUPPLIES |
| 30. | MARRIOTES INVESTMENTS            |
| 31. | MERICIDER ENTERPRISES            |
| 32. | MERVEL ENTERPRISES               |
| 33. | MIRITINI INVESTMENTS LIMITED     |
| 34. | MOKAB AGENCIES LIMITED           |
| 35. | MOSSAK ENTERPRISES               |
| 36. | MURREN INVESTMENTS LIMITED       |
| 37. | NAMULANDA GENERAL SUPPLIERS      |
| 38. | NIMAKI AGENCIES                  |
| 39. | OBOSK GENERAL MERCHANTS          |
| 40. | PAMPERT SERVICES                 |
| 41. | PEERLESS GENERAL SUPPLY          |

**Source:** Kenya National Bureau of Statistics (2015)