# Effects of Mobile Banking on the Financial Performance of Commercial Banks in Kapsabet (Kenya): A Case of Selected Banks in Kapsabet Town

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Abstract: The purpose of the study was to analyze the effects of mobile banking on the financial performance of commercial banks: in Kapsabet Town. The study was guided by the following research objectives to: establish the effect of mobile banking withdrawals and deposits on financial performance of banks; establish effects of mobile banking loans on financial performance of banks; establish the role of mobile banking funds transfer on financial performance of commercial banks; evaluate the effect of mobile banking payment of bills on financial performance. The study adopted descriptive research design where selected banks in Kapsabet were studied. The population under the study included the management team, head of departments, bank staff and bank customers of selected banks in Kapsabet town. This study was guided by the systems theory and the theory of constrain. This study employed stratified random sampling method as a technique of probability method, which was done according to the bank structure. Purposive sampling technique was used to select management team and head of departments while Simple Random Sampling technique was used to select bank staff and bank customers. The questionnaires were tested for reliability by using Cronbach alpha to determine the internal consistency of the items. The researcher used expert judgment method to determine content validity. Questionnaire and interview schedule were used as the main instruments of data collection for this study. The data obtained from the research instruments were analyzed using Statistical Package for Social Science (SPSS) version 20. Descriptive and inferential statistics were used in analyzing the data. Descriptively frequencies and percentages were used to analyze demographic data, while testing variables in hypothesis were inferentially analyze using multiple regression model. The expected findings was that mobile banking improves the financial performance of commercial banks. The findings of the study revealed that there was a significant relationship between mobile banking and financial performance (p<0.005). The study concluded that mobile banking would make it easier to send money to receiver instantly. it also concluded mobile banking ensures easy track of lenders and easy monitoring, it concluded mobile banking helps to ensure quick transfer of funds as it saves on time, that mobile banking ensures easy payment of bills and avoids cash payments and concluded mobile banking payment of bills affects productivity of banks within the area. The study recommended that the banks should improve on convenient banking mode in order for users of mobile banking to able to receive money conveniently. Commercial banks should improve on their mobile banking mode to ensure flexible acquisition of loans due to low loan limits and hence improve financial performance. The study suggested that further studies be done in other financial institutions allow generalization on a wider perspective on the effects of mobile banking on financial performance.

**Keywords:** Mobile Banking Withdrawal and Deposit, Mobile Banking Loans, Mobile Banking Funds Transfer, Mobile Banking Payment of bills and Financial Performance.

# I. Introduction

Globally, additive M banking, in which the mobile phones is simply an additional channel that is used to provide banking services to those already banked. Majority of Finnish customers conduct their day-to-day banking mainly via internet, thus, the number of bank branches have reduced considerably (Mari and Minna, 2006).

M banking customers are driven by the convenience that is brought about by the technology in terms of deposits, withdrawals and making payments. Johnson, Brown, and Fouillet (2012) argues that M pesa offers a high level of reliability and convenience since agents are located even in small market centers and customers can undertake transactions from the comfort of their homes. This system therefore offers a great potential for formal financial providers to reach low- income rural people (FSD annual report, 2009; Ivatury and Mas, 2008).M banking has the potential of reducing costs across the financial system. Findings from a survey conducted in 2008 by FSD showed that, on average the closest agent to respondents was reachable in less than

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12 minutes and at a transport cost of approximately 15 shillings. By contrast, Fin Access data showed that the nearest bank branch for around 60% of the population would be reached in more than 30 minutes and, the transport would cost more than 50 shillings. This highlights the significance of proximity to overall transaction costs (FSD Annual Report 2009; FSD Annual Report 2010). M banking lowers the cost of delivery, which includes costs both to banks and to customers of accessing services, for example, costs associated with travelling and queuing in the banks (Lyman, 2006; Porteous, 2006; Ivatury and Mas, 2008; Anyasi and Otubu, 2009; Mas and Radcliffe, 2011; Ayo et al., 2010; CCK, 2012).

M banking facilitates quicker and economical monetary transfer, increasing the volume of trade and access to finance for a large portion of the unbanked in developing countries (Maimbo, 2010). M banking customers can conduct transactions wherever they have cell coverage; they need to visit a retail agent only for transaction that involves depositing or withdrawing cash (Lyman, 2006). In developing counties, M banking may reduce the need for the rollout of higher cost financial infrastructure such as dedicated point of sale (POS) devices (Porteous and Neville, 2006). In both developed and developing countries, mobile phones have become the primary form of telecommunications (Bhavnani, Chiu, Janakiram and Silarszky, 2008). The Northern European countries are among the most advanced ones in the adoption of different new mobile technologies. In 2006, M banking in Finland enabled services such as checking account balances, fund transfers, payment of bills, share dealing, portfolio management and purchase of insurance (Mari, 2006). As Pankki, (2006) have argued wide internet and mobile phones penetration makes it possible to offer banking services through electronic channels. The growth of M banking is revolutionizing how customers gain access to financial services, especially in developing world where majority of the population lacked formal banking services Ngugi, Pelowski, and Ogembo (2010). Branchless banking has largely contributed to the development of financial access in developing countries (Ivatury and Mas, 2008). Thus, this system of banking has proved to be a very important innovation in developed world (Anyasi and Otubu, 2009).

# 1.2 Statement of the Problem

Financial establishments in Kenya have adopted mobile services i.e. Mobile banking to provide crucial banking services. Although M-banking is a profitable retail-banking product and has been the cornerstone of financial institution operation over the last ten years in Kenya, its adoption has been facing growing difficulties because of certain perceptions that bank customers have. (FSD Annual repot 2010; Mas and Radcliffe, 2011) indicated that M banking growth in Kenya and the usage (adoption) of M banking has been growing at a slow rate. This was further reinforced by the Central Bank of Kenya (CBK, 2012) report on growth of M banking usage in relation to Kenya population that is estimated to be 40 million peoples (Kenya bureau of statistics). Majority of people in Kenya don't use M banking as a payment system as per Steadman Group report of January, 2011 hence it is evident that M banking adoption is growing at a slower pace in comparison to the population that is eligible to have them (Clark, 2011). Ideally, in Kapsabet town mobile baking has been seen to be greatly used by various banks, however adoption of this mobile platform have not been clearly seen to be translating into the performance of the banks. The financial performance of the banks with Kapsabet town has been derived from other services such as loans and savings but the mobile banking services has not contributed immensely into the financial performance. Based on the information this study sought to investigate the analysis of the effects of mobile banking on the financial performance of commercial banks: A case study of selected banks in Kapsabet town.

# **II.** Literature Review

# 2.1Effects of mobile banking on withdrawals and deposits

Mobile banking has revolutionized the way people within the developing countries transfer cash and currently it's poised to provide of refined banking services that may build a true distinction to people's lives. This kind of banking can give good type of services starting from account data that should do with alerting the customers on the updates and transactions on their account through their mobile phones. People receive short messages on their phones informing them of their immediate transactions in their bank accounts. In addition, they assist in payments (utility bills), deposits, withdrawals, transfers, purchase airtime, request bank statements and perform thirteen different crucial banking tasks, bushed real time over their mobile phones. Banks at the side of normal leased Bank (Uganda) (Buyer and lenders, 2006) have mostly enforced service delivery technology as the simplest way of augmenting the services historically provided by personnel, Howcraft, Bacett, (2006).

According to IDG News Service for September, 2008 Selected banks pioneered the primary m-banking technology within the world to succeed indeed set the unbanked, and for championed the management of standard people through comprehensive finance. Nasikye (2009) the m-banking technology is comparable to it of MTN (mobile money) Warid (warid-pesa), Airtelmoney, Safaricom's MPESA (in Kenya), among others that has created banks uncomfortable given the shift of most transactions from banks to transportable kiosks

within the banking sector in our world nowadays, mobile cash transfer services may be a quick growing development. This has come back to enhance the extent of banking industry and may be delineating because the provision of banking or monetary services with the help of mobile telecommunication devices. M banking has come back to remain, providing its customers with associate degree expedient means of banking.

The telecommunications trade worldwide has disorganized to bring what's obtainable to networked computers to mobile devices (Schofield &Kubin2007). Presently, the employment of electronic banking is significantly high and as additional and additional userssign in for electronic-banking, the maturity as regards remote banking (i.e. banking outside the banking hall) is on the rise. With electronic banking, users will currently handily do banking transactions, however this convenience cannot be achieved if the user does not have access to the web, hence, in different words, the user cannot do a banking dealingwhereaslooking ahead to a bus, or maybe whereas having lunch in an eatery. With m banking, convenience is often achieved 24hrs each day. This is often as a result of a user has access to his transportable all day, in the slightest degree times. Therefore, to effectively reach convenient banking mode, a mobile mode of banking should be explored, hence the necessity for m banking.

The advent of the web has revolutionized the means the monetary services trade conducts business, empowering organizations with new business models and new ways in which to supply twenty four hour accessibility to their customers. The flexibility to supply monetary transactions on-line has additionally created new players within the monetary services trade, like on-line banks, on-line brokers and wealth managers. World Health Organization supply personalized services, though such players still account for a little proportion of the trade. Over the previous couple of years, the mobile and wireless market has been one amongst the quickest growing markets within the world and it is still growing at a fast pace. According to the GSM Association and gamete, the amount of mobile subscribers exceeded a pair of billion in Sep 2005, and currently exceeds a pair of five billion (of that overa pair of billion are GSM).

According to a study by monetary practice Celent, thirty fifth of on-line banking households are going to be using mobile banking by 2010, up from but one hundred and twenty fifth nowadays. Upwards of seventieth of bank center, decision volume is projected to come back from mobile phones. Mobile banking can eventually enable users to form payments at the physical purpose of sale. "Mobile contact less payments" can form up to hundred percent of the contact less market by 2010. Several believe that mobile users have simply began to totally utilize the info capabilities in their mobile phones. In Asian countries like Republic of India, China, Bangladesh, Dutch East Indies and Philippines, wherever mobile infrastructure is relatively higher than the fixed-line infrastructure, and in European countries, wherever transportable penetration is extremely high (at least eightieth of customers use a mobile phone), mobile banking is probably going to charm even additional. This reveals Brobdingnagian markets for monetary establishments' inquisitive about giving price additional services. With mobile technology, banks can give good variety of services to their customers like doing funds transfer whereas traveling, receiving on-line updates of stock value or maybe playing stock commerce whereas being stuck in traffic. According to the German mobile operator Mobil com, mobile banking is going to be the "killer application" for successive generation of mobile technology.

Mobile devices, particularly good phones, are the foremost promising thanks to reach the plenty and to make "stickiness" among current customers, thanks to their ability to supply services anytime, anywhere, high rate of penetration and potential to grow. According to Gartner, cargo of good phones is growing quick, and will hit twenty million units (over 800 million sold) in 2006 alone.

In the last four years, banks across the world have endowed billions of cash to make subtle web banking capabilities. Because the trend is shifting to mobile banking, there is a challenge for CIOs and CTOs of those banks to choose on a way to leverage their investment in web banking and supply mobile banking, within the shortest attainable time.

A wide spectrum of Mobile/branchless banking models is evolving. However, despite what business model, if mobile banking is being employed to draw in low-income populations in usually rural locations, the business model can rely upon banking agents, i.e. retail or communicating retailers those method monetary transactions on behalf telecoms or banks. The banking agent is a vital part of the mobile banking business model since client care, service quality, and money management can rely upon them. Several telecoms can go through their native airtime resellers. However, banks in Republic of Colombia, Brazil, Peru, and different markets use pharmacies, bakeries, etc. These models disagree totally on the question that World Health Organization can establish the connection (account gap, deposit taking, loaning etc.) to the top client, the Bank or the Non-Bank/Telecommunication Company (Telco).

Ho<sub>1</sub>: Mobile banking withdrawal/deposits has no significant effect on financial performance at selected banks.

# 2.2 Effects of Mobile banking on Loans.

In recent years, a growing range of developing countries at the side of Republic of Kenya have commenced on reforming and freeing their monetary systems, remodeling their establishments into effective

intermediaries and lengthening viable monetary services on a property basis to any or all segments of the population (Seibel, 2006). By step by step increasing the reaching of their monetary establishments, some developing countries have significantly alleviated the condition by initiating a framework and infrastructure to encourage loaning through public and personal credit reference bureaus, institutional methods to spur economic development like the vision 2030 in Republic of Kenya and monetary systems approaches that embody alternatives to collaterals so as to access credit (Pagano &Jappelli, 2006). Within the method, a brand new world of finance has emerged that is demand-led and savings driven and conforms to sound criteria of effective monetary intervention. There is currently early expertise with the flourishing integration of small finance methods into micro policies that makes banking the small economy (Miller, 2006).

According to Proch now (2006), credit allocation is that the method of granting credit or loan to a receiver for a given economic enterprise. Mobile banking has created this to be achieved once analysis of the borrower's credit goodness supported the bank's loaning policy, credit standards, credit terms, the credit assortment terms and credit reference reportage (Greuning& Bratanovic, 2009). A comprehensive methodology of credit allocation is applicable equally to a standard bank (Iobal &Mirakhor, 2007). The method of credit allocation may be atwo-step process. The primary is to judge the credit allocation that is to spot the leading variables influencing credit allocation. The second is to plan ways to quantify the credit using mathematical models, to know the profile of the instrument. Once a general framework of credit allocation and management is developed, the techniques are often applied to completely different things, products, instruments and establishments. Greuning &Iqbal, 2007 argue that mobile banking is crucial for banks to possess comprehensive credit allocation management framework, as there is growing realization among governments that property growth critically depends on the event of a comprehensive credit allocation management framework. A study into credit management framework will facilitate banks to cut back their exposure to borrowers, and enhance their ability to view tin the market (Iqbal & Mirakhor, 2007). A discount in every institution's exposure can cut back the general within the monetary sector yet. Industrial banks whereas within the method of providing monetary services, assume varied types of monetary risks. Hence, it's necessary that Banks have in situ a comprehensive management and reportage method to spot, measure, monitor, manage, report and management completely different classes of borrowers (Stieglitz & Weiss, 2011).

Traditionally, bank loaning and loans to trade and trade has been thought of as a vital supply of finance. The bank as a supplier of credit plays a vital role within the economy. The role of the bank as a financier has undergone an ocean of amendment over the years. The bulk of the banks' customers need mobile banking short-term finance to conduct the day-to-day business that funds the present assets of the business. One amongst the ways of loaning that banks like is to use the client's record and compute the assets gap, that is, total current assets less current liabilities aside from bank borrowings to get most permissible bank finance trusted the set down credit policy and so finance a given proportion. However, there are activities performed by banking corporations that do not have direct record implications. These services embody agency and consolatory activities like trust and investment management, personal and public placements through intermediaries or facilitating contracts, normal under-writing, or the packaging, securitizing, distributing and coupling of loans within the areas of client and land debt management (Prochnow, 2011). These things are absent from the standard financial plan because of the believe in accepted accounting procedures instead of real economic record. All the same, the overwhelming majority of the risks facing the monetary sector are in on-balance-sheet businesses. It is during this space that the discussion of credit allocation and therefore the necessary procedures for credit management and management has targeted (Altman, 2006).

Credit allocation is that the method of granting credit or loan to a receiver for a given economic enterprise. This is often achieved once analysis of the borrower's credit goodness supported the lenders' credit policies such as; loaning policy, credit standards, credit terms and therefore the credit assortment terms. According to Fallon (2006), every bank should apply an identical analysis and rating theme to any or all its investment opportunities so as for credit selections to be created in a very consistent manner and for the resultant combination reportage of credit risk exposure to be meaning. To facilitate this, a considerable degree of standardization of the method and documentation is needed. This ends up in standardized ratings across borrowers and a credit portfolio report that presents meaning data on the quality of the credit portfolio. In a very single scoring system, one price is given to every loan that relates to the borrower's underlying credit quality. This single price (credit score) are often computed from a credit reference bureau (Love &Mylenko, 2006).

At some establishments, a twin system is in place where the receiver and the credit facility are rated. Within the latter, attention centers on collateral and covenants, whereas within the former, the overall credit goodness of the receiver is measured. Some banks like such a twin system and mobile banking, whereas others argue that it obscures the problem of recovery to separate the power from the receiver in such a way. In any case, it is often noted that within system all loans are rated employing a single numerical scale travel between one and ten. According to Parrenas (2005) for every numerical class, a qualitative definition of the receiver and therefore the loan's quality is obtainable associate degreed an analytical illustration of the underlying financials

of the receiver is conferred. Parrenas (2005) hold that such associate degree approaches, whether or notit isone or a twinscoring system permits the credit authority committee some comfort in its information of loan plus quality at any moment of your time. It needs solely that new loan officers be introduced to the system of loan ratings, through coaching and place to attain a standardization of ratings throughout the bank. Given these standards, the bank will report the standard of its loan portfolio at any time, on the lines of the report conferred.

According to Podpiera (2008), total assets, together with loans, leases, commitments, and derivatives, are according in a single format. Presumptuous the adherence to standards, all of the firm's credit quality is according to senior management monthly via this reportage mechanism. Changes during this report from one amount to a different occur for two reasons; loans have entered or exited the system, or the rating of individual loans has modified over the short-time interval. The primary reason is related to normal loan turnover. Loans are repaid and new loans are created. The second reason for anamendment within the credit quality report is additional comprehensive and elaborated to incorporate periodical changes thanks to emergence of the mobile banking platform.

**Ho**<sub>2</sub>: Mobile-banking loans have no significant effect on and the financial performance at the selected banks.

# 2.3 Effects of M banking of Funds Transfer

In 2006, Mari conducted a study on adoption of M banking in European nation. The study conducted a survey of 2006 customers of banks placed in land. The data inside the empirical study were collected by suggests that of a type armored to banking customers. The results from the study indicated that certain attributes of M banking influence its usage. The attributes include; relative advantage, compatibility, communication and tradability. The investigation of quality and risk of pattern M banking yielded no support as being barriers to adoption. The finding collectively disclosed that, technology perception and certain demographical variables of the customers have a serious impact on adoption. In a very completely different study titled "An empirical investigation of mobile banking adoption", the results indicated that perceived relative advantage, simple use, compatibility, ability and integrity significantly influence perspective. The perspective then ends up in activity intention to adopt M banking (Lin, 2012) In 2012 Dr. Shams her Singh, prof, Banarsidas Chandiwala Institute of skilled Studies, New Delhi, Republic of India conducted a survey of two hundred customers of banks and the way funds are transmitted situated in city. The study examined the factors touching the adoption of M banking by client of various banks situated in city. The study surveyed the opinion of two hundred customers of banks situated in city. Analysis of Variance (ANOVA) and correlation analysis were used for having insights within the mobile banking services provided by the various banks. The population studied was urban population that was thought of as representative of banking customers in city. The findings supported the correlation analysis of the info found four clear factors touching the adoption of m banking. These four factors are labeled as "Security/Privacy, dependability, Efficiency, and Responsiveness". This is on the premise of understanding of customer's perception concerning the mobile banking. Additionally the results supported the Analysis of Variance (ANOVA); found that the demographic factors will have important impact on the client perception on the adoption of m banking (Shamsher, 2012).

In 2007 Porteous, conducted a survey commissioned by each Fin Mark Trust and Department for International Development (DFID) on the factors influencing the adoption of mobile banking services at Washington DC concentrating on a population of three hundred found that, most unbanked people were unbanked primarily for "economic reasons", that relates partly to their work standing and partly to their perception that formal employment was a requirement for gap a checking account. He additionally found that, adolescents tend to not have bank accounts and see less would like for them. Identical study additionally discovered that M banking users normally have the next financial gain, are additional possible to measure in urban areas and in formal employment, yet as slightly older as banked people with mobile phones do. Porteous argues that, the first adopters profile seems to correlate additional with the required practicality than with issue that imply risk tolerance like age. Additionally, a high proportion of the banked population either does not perceive M banking as an alternative has not detected concerning it. Despite these high levels of cognitive content concerning M banking, banked people still have robust unfavorable angle, with around one in 5peopleskeptical its trustiness (Porteoust, 2007)Cheah, Teo, et al, (2011) conducted associate degree empirical analysis on factors touching Malaysian Mobile banking adoption. Correlational analysis was accustomed have insights within the mobile banking services provided by the various banks in Asian nation. Within the study, factors like PU, PEOU, relative advantage (RA) and private originality (PI) were found to be completely connected with the intention to adopt mobile banking services. However, social norms (SN) were the sole factors to be insignificant and perceived risk (PR) were negatively related to the mobile banking adoption. In 2006, consolatory cluster to help the Poor (CGAP) conducted a survey of 515 people in South Africa, in areas served by WIZZIT. The information within the empirical study was collected by suggests that of a form

armored to people with each mobile phones and bank accounts. The study found that, people who took up WIZZIT's M banking services on the average had the next financial gain, higher academic level and were

additional usually formally used, urban and older. To boot, the first adopters were customers with additional subtle banking necessities, CGAP additionally estimates that of concerning Meg M banking customers in South Africa, fewer than one hundred, thousands falls below South Africa poverty level, did not have a checking account earlier and currently use M banking for over payments or transfers (Ivatury and M as, 2008). Masinge, (2010) conducted a study on the factors influencing the adoption of mobile banking services and the way they're transferred amongst the customers at all-time low of the pyramid (BOP) in South Africa. The data within the empirical study were collected suggests that of a form. Analysis of Variance (ANOVA) was accustomed have insights within the mobile banking services provided at all-time low of the pyramid (BOP) in South Africa. During this study, the results based on the Analysis of Variance (ANOVA) discovered that PU, PEOU, perceived price, and customer's trust had a major impact on the adoption of M banking at the BOP. Whereas, understand risk (PR) was found to possess no important impact on the adoption of M banking at the BOP. Aker and Mbithi (2010) conducted a study to look at the evolution of transportable coverage and transfer in Sub Saharan continent over the past decade. The data within the empirical study were collected by suggests that of a form. The finding discovered that, the primary people to adopt the mobile phones were primarily educated, young, moneyed and concrete populations. This was thanks to the comparatively high prices of handsets and services. By the year 2009, mobile phones wasownedby even the poor, the older and rural population, partly expedited by the introduction of low priced handsets and lower denomination mobile high up cards. The study discovered that, on average, M pesa users are wealthier, higher educated, urban populations and are already banked. The finding additionally shows that the majority of the M pesa transfers are occurring inside urban areas.

In 2012 FSD of Republic of Kenya commissioned a survey on 800 people in Kenya titled, seek for inclusion in Kenya's monetary landscape; the rift discovered, the information within the empirical study were collected by suggests that of a form the authors found that monetary service access is most systematically influenced by gender and education. The finding discovered that men are additional possible to possess M pesa than women (and particularly young men compared to young women) and are additionally possible to possess bank accounts. Having no education reduces the probability of getting M pesa compared to any level of primary education or on top of; whereas having an education or above ends up in the next probability of using M pesaand fewer up to now banks. Lastly, location additionally has associate degree influence on monetary service access with those living additional removed from banks being less possible to possess a checking account or maybe using it off. In contrast, people living additional removed from associate degree M pesa agent were additional possible to possess a registration therefore on be able to receive transfers, however larger proximity didn't seem to be related to additional frequent use, (Johnson et al., 2012).

Ho<sub>3</sub>: Mobile banking funds transfer has no significant effect on and the financial performance at the selected banks.

# 2.4 Effects of mobile Banking on Payment Bills

According to study administered by Mattson (2005), in China whose objective was to appear at the affiliation between the mobile banking management on the payment based on the impact of the stakeholder's views on the operations on the banking sector. The study used a case of customers inside the country and established that the affiliation among the various stakeholders inside the arena is also a vital issue that plays a task in the payment of bills by the customers of merchandise.

The study indicated that the flexibleness to satisfy the necessities of the management of the various stakeholders is extremely vital that it helps to spice up the welfare of the stakeholders and to boot address the various challenges that they face in their duties. The analysis showed various indicators that entails the necessities of the management and therefore the means they were addressed .The study finished that addressing the various challenges of the stakeholders may be larger milestone that helps to spice up the productivity inside the banking sector and to book stand opens up avenues to increase the market share of the domestic payment of bills of merchandise.

A study conducted by Scott (2006) examined the impact payment of bills services inside the mobile banking within the society and therefore the means it affects productivity within the arena. The thirty-four organizations meeting this criterion were selected from a commercially management France data. The survey instrument was adopted to appear at organizations. The study found that payment services is also decent because it ensure that merchandise unit of measurement paid whereas fraud and misuse of funds is not rife, hence peaceful being among the stakeholders; this will to booted sure that everybody inside the arena plays his role with none conflicts among themselves. However, whereas the study found that partitioning conflicts brings concerning confidence inside the operation arena and additionally the stakeholders mutuality.

The study finished that addressing payment of bills pattern mobile services like 'LipanaMpesa' and procure of merchandise services guarantees sleek running of operations inside the business and this facilitate to bring peace and wise interactions among the customers and retailers, hence this will contribute towards thriving

of the banking sector. The studies recommend that a Mobile banking department need to be discovered to handle the various issues that the commercial sector and various stakeholders face; this will thence be of a decent role inside the firm's productivity.

Globally financial establishments and in particular banks have developed innovative products and offered various services in an effort to take care of customer satisfaction and efficiency, which is their main objective. Essentially banking services are being offered through electronic delivery channel that provides services through mobile gadgets (Mari, 2006&Rashid, 2011). In France, more recent development in ICT has provided the opportunity for customers to access banking services without making a physical movement to visit bank branches. This technological dynamism has intensified in recent past and has led to the reduction of financial institutions costs. M banking is a subset of electronic banking (Porteous, 2006 and Neville, 2006). This system has enabled banks to increase pace of operations, remove rigidity of business transactions and reduce costs involved with having personnel serve customers physically (Ayo and Oni, 2010).

The use of mobile phones has enabled the growth of markets, social business and public services in countries (Spence and Smith, 2010). Lin (2011) claims that rapid advances in mobile technology have provided M banking extremely important in monetary services sector. The M banking service offers a way of cutting the cost of moving money from place to place (Donner and Tellez 2008; Anyasi and Otubu 2009). At the same time, it brings more users into contact with formal financial services (Anyasi and Otubu 2009). Porteous, (2006) classified M banking into two; firstly, transformational M banking, which is the provision of banking services using a mobile phone to reach the unbanked population. Mari (2006) conducted a study on adoption of M banking in Finland. The results from the study indicated that certain attributes of M banking affect its usage. The attributes include; relative advantage, compatibility, communication and triability, Cheah, Teo, Sim, Oon and Tan, 2011 conducted an empirical analysis on factors affecting Malaysian Mobile banking adoption. In the study, factors such as Perceived usefulness (PU), Perceived ease of use (PEOU), relative advantage (RA) and personal innovativeness (PI) were found to be positively related with the intention to accept mobile banking services. However, social norms (SN) were the only factors to be insignificant and perceived risk (PR) were negatively associated with the mobile banking adoption. In 2006, Consultative Group to Assist the Poor (CGAP) conducted a survey of 515 people in South Africa, in areas served by WIZZIT. The study which included the people with both mobile phones and bank accounts found that, those who took up WIZZIT's M banking services on average had a higher income, higher educational level and were more often formally employed, urban and older (Ivatury, 2008). Aker and Mbithi (2010) conducted a study to examine the evolution of mobile phone coverage and adoption in Sub Saharan Africa over the past decade. The finding revealed that, the first people to adopt the mobile phones were primarily educated, young, wealthy and urban populations. This was attributable to comparatively high costs of handsets and services. In the study titled, search for inclusion in Kenya's financial landscape; the rift revealed, the authors found that financial service access is most consistently influenced by gender and education.

As Kaimenyi and Ndung'u (2009) have argued, majority of households in developing countries lack access to financial services, which impedes economic growth and development. M-pesa, a service provided by Safaricom Company in Kenya is the most celebrated success story of M banking in developing world. M pesa was introduced in March 2007 as a mobile money transfer service, today; it is a success story of financial services advancement with a technological base that makes it effective, efficient and cheap. Indeed, M banking has opened opportunities for many Kenyans and others in developing countries. The mobile telephony sector in Kenya has witnessed a growth over the recent past. This sector has continued to grow, in terms of both subscription and invention of new and innovative products that aims at enhancing delivery of service and increasing customer value (CCK, 2013). The communication commission of Kenya through the implementation of the Communication Act has provided an enabling environment that has seen reforms in the telecommunication sector. This has enabled mobile telephony to grow exponentially thus providing a platform for successful mobile banking (M banking) technology.

Over the last ten years, the financial sector has had dramatic changes. This has been made possible by a number of factors which include; regulatory reforms, development in the general economy, policy and, increased competition and new technology. Amendment to the Banking Act in the 2009 Finance Bill, which passed into law at the end of the year, allowed bank to use other retail outlets as agents. (FSD Annual reports 2009). Research shows that M pesa is addressing a major need in Kenya for safe, quick, low- cost and accessible money transfer services (FSD Annual report 2008; Mas and Radcliffe, 2011). In 2008, M pesa linked up with the independent ATM network, pesa point, allowing customers to withdraw cash from their accounts at 110 ATMs across the country (FSD Annual repot 2009). M pesa has also continued to develop linkages with formal banking systems. A number of the larger retail banks have connected to the M pesa system allowing direct transfers between M-pesa and bank accounts. For example, the KCB M-PESA account is a paperless mobile based bank account that is offered exclusively to M-PESA registered customers and will provide the ability to: Save from as little as KShs.1 and earn interest of 2% p.a. Borrow loans with facility fee ranging from 2% to 4%

per month. Equity bank has also launched another product with Orange (Telekom Kenya) which provides a direct link to an Equity bank account and allows transfer across all mobile networks (FSD Annual repot 2010; Mas and Radcliffe, 2011)

By October 2014, M pesa had 12.2 million active customers, and 81,000 agent outlets, which have significantly changed the outlook of financial services in Kenya. More than half of the adult population now uses M-pesa, which has contributed to a sharp increase in the number of adults with access to financial services from 41% in 2009 to 67% in 2014. Many financial institutions now offer M pesa services as a mechanism for customers to either repay loans or withdraw funds. Orange and Aortal have also introduced mobile money services. M pesa has made the mobile money market easy to enter for many (Mobile ventures Kenya, 2012). Mobile transfer services has continued to record a positive growth, and is expected to continue into the future as this service has become a medium of payment and provision of accessible and affordable banking services (CCK, 2012). M banking has significantly changed the way financial institutions and in particular banks do their operations, this has led to the introduction of new products and services that are aimed at lowering costs and reaching a larger number of customers Mari. (2006) but such aim has not been achieved because there are several hindrances that affect the adoption of M banking because as per the study of Spence and Smith of 2010 about 90% of the world population does not use banks and a large and growing percentage of the non-banking population use mobile phones, they therefore recommended in their study that bank managers and policy makers need to understand customers need in order to develop products and services that will focus on meeting customer need so as to increase their adoption rate. Although several banks in Kenya have implemented M banking technology, there are several factors affecting acceptance of this technology by customers.

Ho<sub>4</sub>: Mobile-banking payment of bills has no significant effect on and the financial performance at the selected banks.

# III. Materials And Methods

The study employed a descriptive survey research design. The study targeted 336 respondents with a sample size of 180 respondents. The study used 5-point likert questionnaires as the method data collection instruments and interview schedule. The Cronbach's coefficient alpha was applied on the results obtained to determine how items correlate among them in the same instrument. Cronbach's coefficient Alpha of more than 0.7 was taken as the cut off value for being acceptable which enhanced the identification of the dispensable variables and deleted variables

# 3.1 Data Analysis

The study conducted initial data analysis using simple descriptive statistical measures such as, mean, standard deviation and variance to give glimpse of the general trend. However, correlation analysis was used to determine the nature of the relationship between variables at a generally accepted conventional significant level of P=0.05 (Sekaran, 2003). In addition, multiple regression analysis was employed to test the hypotheses. Multiple regression analysis is applied to analyze the relationship between a single dependent variable and several independent variables (Hair *et al.*, 2010). The beta ( $\beta$ ) coefficients for each independent variable generated from the model, was subjected to a t –test, in order to test each of the hypotheses under study. The regression model used to test is shown below:

$$Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \varepsilon$$

#### Where:

 $x_1 =$  Mobile banking withdrawal and deposits

x<sub>2</sub>=Mobile banking loans

x<sub>3</sub>=Mobile banking funds transfer

x<sub>4</sub> <sub>=</sub>Mobile banking payment of bills

Y = Financial performance

β- Scalar or a vector

ε- Beta

All the above statistical tests were analyzed using the Statistical Package for Social Sciences (SPSS), version 20. All tests were two-tailed. Significant levels were measured at 95% confidence level with significant differences recorded at p < 0.05.

# 4.1. Model Summary

Table 1.0

14010 110							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.571ª	0.326	0.307	0.49186			

Source: Research Data (2016)

The model summary from the regression model indicated that the independent variables explain 32.6% of the variation in the dependent variable. This implies that the data that had been employed in the regression model were accurate.

# 4.2 Analysis of Variance (ANOVA)

Table 1.2

Model		Sum of Squares Df		Mean Square	F	Sig.
1	Regression	16.586	4	4.146	17.139	.000
	Residual	34.354	142	0.242		
	Total	50.94	146			

Source: Research Data (2016)

The ANOVA (table 4.10) for the regression indicated that the results computed using the regression model were significant (F= 17.139, p<0.000) meaning that the regression model was significant. This means that at least one of the independent variables is a significant predictor of the dependent variable.

# 4.3 hypotheses testing

Hypothesis was tested at 5% alpha level of significance.

**Table 4.2** Hypothesis Table

Hypotheses	Results	Decision rule(accept/reject)				
Ho <sub>1</sub> : Mobile banking withdrawal/deposits has	There was a statistical significant effect	Rejected the null hypothesis				
no statistical significant effect on financial	of mobile banking withdrawal/deposits					
performance at selected banks.	on the financial performance at					
	selected banks (p=0.000)					
Ho <sub>2</sub> : Mobile-banking loans have no	There was a statistical significant effect	Rejected the null hypothesis				
significant effect on and the financial	of mobile-banking loans on the					
performance at the selected banks.	financial performance at the selected					
Ho <sub>3</sub> : Mobile banking funds transfer has no	There was a statistical significant effect	Rejected the null hypothesis				
significant effect on and the financial	of Mobile banking funds transfer on the					
performance at the selected banks.	financial performance at the selected					
Ho <sub>4:</sub> Mobile-banking payment of bills has no	There was a statistical significant effect	Rejected the null hypothesis				
significant effect on and the financial	of mobile-banking payment of bills on					
performance at the selected banks.	the financial performance at the					
	selected banks. (p=0.000)					

Source: Research Data (2016)

# 4.4 Regression Analysis

**Table 4.3** Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics		skewness	kurtosis
	В	Std. Error	Beta			Tolerance	VIF		
(Constant)	3.14	.493		6.387	.000				
mobile banking withdrawal and deposits	409	.104	309	-3.941	.000	.772	1.296	-0.163	-1.061
mobile banking loans	.296	.091	.274	3.241	.001	.665	1.504	-0.927	2.822
mobile banking fund transfer	269	.104	234	-2.595	.010	.586	1.707	-1.326	5.472
mobile banking payment of bills	.704	.122	.547	5.763	.000	.527	1.899	-0.140	-0.463

Source: Research Data (2016)

From the results normality distribution test indicated that the data was normally distributed because the skewness outputs were in the range +2 to -2, which is recommended normality by Wuensch (2011). In addition, the findings indicated that the data was normally distributed because kurtosis output were within the recommended range by Wuensch (2011) except for mobile banking fund transfer, which has a positive kurtosis implying too few cases were in the tails.

From the results, it appears multicollinearity is not a concern because the VIF scores are less than 3. The results also from the coefficients, the study was able to illustrate the completion of projects as indicated in the equation below:

Financial performance = 3.146 - 0.309 (Mobile banking withdrawal and deposits) + 0.274 (Mobile banking loans) -0.234 (Mobile banking funds transfer) + 0.547 (Mobile banking payment of bills)

These results were interpreted to mean mobile banking payment of bills was the most important variable in financial performance contributing about 54.7%. Mobile banking withdrawal and deposits was also important in financial performance contributing 30.9%. Mobile banking loans contributed 27.4% with mobile banking funds transfer contributing 23.4% to the financial performance.

# IV. Conclusion

The study concluded that mobile banking would make it easier to send money to receiver instantly. This implies that using mobile banking enhances speed and makes financial transaction easier. Mobile banking has revolutionized the way people transfer cash and has refined banking services that may build a true distinction to people's lives. Mobile banking has enhanced alerting the customers on the updates and transactions on their account through their mobile phones. People receive short messages on their phones informing them of their immediate transactions in their bank accounts.

The study concluded that mobile banking ensures easy track of lenders and easy monitoring. This implies that mobile banking is crucial for banks to possess comprehensive credit allocation management framework and monitoring the transactions. Monitoring of loans and lending using mobile banking will facilitate banks to increase their loan exposure to borrowers, and enhance their ability to view tin the market. Mobile banking has created easy loan transaction to be achievedonce analysis of the borrower's credit goodness supported the bank's loaning policy.

The study concluded that mobile banking helps to ensure quick transfer of funds as it saves on time. This gives the implication that with mobile banking, users are currently handily do banking transactions. With m banking, convenience has achieved 24hrs transaction each day. This is often as a result of a user has access to his transportable all day, in the slightest degree times. So, to effectively reach a really convenient banking mode, a really mobile mode of banking have ensure quick transfer of funds as it saves on time.

The study concluded that mobile banking ensures easy payment of bills and avoids cash payments. This implies that mobile banking assist in payments (utility bills) which reduce the cash transactions and enhances easy payments of purchase.

The study concluded that mobile banking payment of billsaffects productivity of banks within the area. This implies that payment of billspattern using mobile services like 'LipanaMpesa" guarantees smooth running of operations inside the business and this facilitate to bring peace and best interactions among the customers and retailers, hence this will contribute towards thriving of the banking sector hence improving financial performance.

# V. Recommendation

The banks should improve on convenient banking mode in order for users of mobile banking are able to receive money conveniently. Commercial banks should improve on their mobile banking mode to ensure flexible acquisition of loans due to low loan limits and hence improve financial performance. Commercial banks should improve on mobile banking services networks because their services have not performed well because of network problems, which had affected their financial performance negatively. Commercial banks should use mobile banking in payment purchase of good to ensure convenient purchase of goods, which will improve purchase traction and reduce of lost of cash through theft. Commercial banks should improve on mobile banking funds transfer across other funds transfer facilities in order to make easy funds transfer and improve financial performance.

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