



**EFFECT OF MOBILE BANKING STRATEGY ON CUSTOMER SATISFACTION: A CASE OF COMMERCIAL BANKS IN  
ONGATA RONGAI**

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**ABSTRACT**

*The study sought to establish the effects of mobile banking as a strategy for customer satisfaction in commercial banks at Ongata Rongai Kenya. The study was guided by two specific objectives: to establish how convenience of mobile banking influences customer satisfaction on commercial banks in Ongata Rongai and to ascertain the extent to which cost effectiveness of mobile banking influences customer satisfaction on commercial banks in Ongata Rongai. The study adopted a descriptive research design. The population of the research consisted of the all customers from the commercial banks in Ongata Rongai. A sample size of 150 customers were selected through simple random sampling. The study used primary data. The data was collected through the use of structured questionnaires. Statistical Package for Social Sciences (SPSS) was used in the analysis of data and results were presented on frequency tables to show how the responses for the various variables and indicators posed to the respondents. The data was analyzed by use of descriptive and inferential statistics. Descriptive statistics produced frequencies, trends, means and percentages while inferential statistics produced regression and correlation results which showed the relationship among the variables. The study findings indicated that mobile banking had an influence on customer satisfaction. Banking through the internet and mobile devices has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labor intensive methods with automated processes thus leading to higher productivity, profitability and customer satisfaction. The study concludes that there has been tremendous increase in the online banking uptake in commercial banks in Kenya given that majority of the respondents had used mobile or online banking. This increase in mobile banking incomes may be as a result of increased innovations and increased use of mobile phones among customers which further has increased customer satisfaction. The study recommends banks to continue embracing innovativeness since innovation is highly critical for the banks survival and sustainability. There is need for banks to invest in state of the art technology and regular training of their staff to enhance employee skills. The bank should constantly find out customer requirements and conduct benchmarking on best practice.*

**Key Words:** Convenience, Cost Effectiveness, Mobile Banking, Customer Satisfaction

## INTRODUCTION

Mobile banking is an innovation that has progressively rendered itself in pervasive ways cutting across several financial institutions and other sectors of the economy. During the 21st century mobile banking advanced from providing mere text messaging services to that of pseudo internet banking where customers could not only view their balances and set up multiple types of alerts but also transaction activities such as fund transfers, deposit cash via the mobile phone and instruct payroll based transactions (Vaidya, 2011).

Technology has greatly advanced playing a major role in improving the standards of service delivery in the financial institution sector. Days are long gone when customers would queue in the banking halls waiting to pay their utility bills, school fees or any other financial transactions. They can now do this at their convenience by using their ATM cards or over the internet from the comfort of their homes. Additionally due to the tremendous growth of the mobile phone industry most financial institutions have ventured into the untapped opportunity and have partnered with mobile phone network providers to offer banking services to their clients.

The mobile revolution has transformed the lives of many Africans, providing not just communications but also basic financial access in the form of phone-based money transfer and storage (Jonathan & Camilo, 2008; Demombynes & Thegeya, 2012). The high growth and penetration rates of mobile telephony that is transforming cell phones into pocket-banks in Africa is providing opportunities for countries on the continent to increase affordable and cost effective means of bringing on board a large chunk of the population that hitherto has been excluded from formal financial services for decades hence increasing their profitability. Such a transformation is of interest not only to banks and Micro Financial Institutions (MFIs) but also to governments, financial regulators as well as development partners who are providing support

to improve the livelihoods and achieve sustained economic growth.

Mobile banking is evolving as the new front on which banks can differentiate their service delivery. Banks and other financial services companies have an opportunity to generate new business, attract or retain customers, control costs, and gain other advantages by deploying applications for mobile phone users (Johnstone, 2010). The mobile banking platform allows increased penetration by banks to areas not viable for physical presence that involves huge investments in physical infrastructure. Banks are also able to sell more services to existing customers through mobile banking thus increasing the banks' share of wallet.

Further, the banks most valuable customers, who constitute about 20% of all customers and account for about 80% of the banks business, can be retained through the increased efficiency and value brought about by mobile banking, according to Mas and Kumar (2008), it is very difficult to have individual services unique to a bank because they are easily replicable. He argues that the important thing is to 'embed the non-unique services within a unique customer experience'. With informational and transactional capability in customers' pockets (the mobile-as-Internet-machine), banks may be able to propose new services to their customers in a much more targeted way. Banks also can fully exploit the immediacy of the mobile environment to extend the benefits of control and choice, and hence convenience, across their entire product range (the "new way to interact" view). Costs of service can also be significantly reduced through adoption of mobile banking. This is because of the 'self service' capabilities brought about by mobile banking, as well as the non use of stationery, man hours and other physical resources. Various services can be offered through mobile banking. These include funds transfers, bank alerts, service requests, information inquiries, and bill payment.

Developed economies have high access in using formal financing systems which are even serving enterprises with growth opportunities. World Bank (2008) says developed countries are less competitive have well regulated financial systems with more developed contractual and informational infrastructures tend to have a high percentage in financial inclusion of its households. In European countries mobile banking has replaced branch networks replacing formal banking system. Mobile phones and other technological innovations are bringing financial services to the mass market thus creating alliances between telecommunications and companies. However this is not the case in United States of America, a recent article in New York noted that 50% Americans used on-line banking and only 10% use mobile based banking which is contrary to the Kenya where hundreds use the mobile money as an easier way of banking (Tillman, 2010).

A 2007 survey on mobile wallets and mobile financial services showed that respondents expected the number of subscribers using mobile domestic money transfers to grow more rapidly for developed markets than for developing markets. These results implied that consumers in developed markets are interested in electronic P2P payment options and would be willing to conduct them via the mobile device. The survey found similarly that cross-border remittances are expected to grow significantly over the same projected time period (GSMA, 2008).

One aspect of mobile phones in the developing world that is being looked at with some anticipation is the introduction of mobile financial services and transactions. Many if not most rural users in less developed countries have no access to financial services of any kind, and getting these "unbanked" citizens linked somehow into the formal banking sector is a priority for many governments. However, the evidence to date of initial efforts in this regard is mixed. While users are employing the mobile banking systems to

make payments for things such as airtime and pre-paid electricity, and many are using them for sending remittances back to friends and relatives in their rural villages, there is little evidence to date of an increase in the number of users registering for more formal banking services via mobile phone, such as savings and credit services (Morawczynski, 2008).

Successes in Africa (and particularly in Kenya's M-PESA) are being tried out elsewhere in the world. A recent inventory by the social venture credit SMS suggests that there are at least 23 distinct MMT, operating or pending in 20 countries following the success of MPESA. Some, like MTN's Mobile Money, and Zain's Zap operate across multiple countries; others are country-specific. Some of these applications include: a Greenfield deployment in Indonesia launched in 2009 and the SMART Communications' Island Activations Program in the Philippines. The leading Afghan mobile network operator, Roshan, anticipate building an M-PESA-like infrastructure in Afghanistan by end of 2010 (Pulver, 2009).

The perceived low level of demand, low levels of bank of income, high bank fees, untailed products and services and limited geographical reach ensured only a small percentage of Kenyan population had access to banking services (Chogi, 2006). Banking was driven by income generated from fees for services rendered, interest earned deposits and interest received from loans. The move from traditional banking to agency banking and currently mobile banking has been beneficial to both the banks and customers as it reduces operating cost of the institution and its convenient and cheap as lesser fees are charged on mobile transaction.

Mobile banking is the provision or availment of banking services with the help of mobile devices. The advent of M-banking was fostered by competition from telecommunication industry mainly safaricom with their Mpesa services to their customers and Zain (formerly Airtel) with Zap services. These services facilitated the

customers to deposit money into their account, transfer money to other user for instance sellers of goods and services, relatives and friend; this brought convenience.

The banking sector has had to adopt technological change to remain competitive. In search of competitive advantages in the technological financial service industry, banks have acknowledged value and differentiated themselves from others financial 4 institution through new service distribution channels (Daniel 1999). Banks bureaucratic process of account opening cut out many rural poor as they could not qualify to own accounts. With competition, banks had to simplify the process and had to come up with innovative ways of doing so. Quite a number of banks have innovated various M-banking products for example; Barclays Hello money, Equity bank M-Kesho, KCB Mobibank, Family bank Pesa pap and more recently M-shwari of Commercial bank of Africa. Mobile banking provides a number of advantages for both banks and customers. Mobile banking removes geographical limitation to customers and therefore bringing convenience. There is no time limitation i.e. banking maybe performed throughout the day and in any place. Mobile banking also provides efficient cash management and security of cash.

### **Statement of the Problem**

The banking sector in Kenya has experienced turbulent times following the collapse of many banks in the 1990s. In order to minimize their operational costs, commercial banks have adopted internet banking including ATMs, mobile banking and internet banking where customer can access their accounts on their personal computers. Kenya mobile banking arena is fast developing and shaping the landscape of cashless transactions exponentially. Mobile phones have become a key tool for economic and social survival with a proven capacity to act as development catalysts. Kenyan banks are laying great emphasis on technology, product innovation

and customer service. This digital drive has become part of most banks strategy and corporate goal.

Different scholars have done studies on electronic and mobile banking in Kenya. Kigen (2010) studied the impact of mobile banking on transaction costs of microfinance institutions where he found out that by then, mobile banking had reduced transaction costs considerably though they were not directly felt by the banks because of the then small mobile banking customer base. The current study differs from Kigen (2010) because the rate of mobile banking and the number of customers who have adopted mobile banking have increased thus the reason to find out if mobile banking has any influenced customer service. Kingoo (2011) did a study on the relationship between electronic banking and financial performance of commercial banks in Kenya where he paid keen attention on the microfinance Institutions in Nairobi. However, the current study is focusing on commercial banks and not microfinance institutions. Kingoo (2011) also looked at the wider electronic banking whereas this study will only concentrate on mobile banking.

Munaye (2009) studied the application of mobile banking as a strategic response by Equity Bank Kenya Limited to the challenge in the external environment. Munaye (2009) reviewed the concept of mobile banking as a strategic response where its effects on customer satisfaction were not considered.

Jepleting (2013) studied the effects of mobile banking on customer satisfaction with Specific interest on Equity bank of Eldoret town. This narrowed the study to only customers of Equity bank in the town. From the above discussions, it is evident that not much research has focused on the economic implication of mobile banking as a strategy for customer satisfaction on Commercial Banks. This research therefore aimed at bridging the gap. To achieve this, this study sought to establish the effect of mobile banking as a

strategy for customer satisfaction of commercial banks in Kenya with a specific interest on Commercial banks in Ongata Rongai.

### **Research Objective**

The main objective of the study was to establish the effect of mobile banking as a strategy for customer satisfaction on commercial banks in Ongata Rongai. The specific objectives:

- To determine the influence of convenience of mobile banking on customer satisfaction of commercial banks in Ongata Rongai.
- To establish the effect of cost effectiveness of mobile banking on customer satisfaction on commercial banks in Ongata Rongai.

## **LITERATURE REVIEW**

### **Theoretical Framework**

#### **Innovation Diffusion Theory**

According to Rogers (1985) diffusion basically refers to the process by which an innovation is communicated through certain channels over a period of time among members of a particular social system. He further defines an innovation an idea that is perceived to be new by an individual or other unit of adoption. He equally defines communication as a process in which participants create and share information with one another to reach a mutual understanding. Diffusion of innovations theory focuses on the conditions which increase or decrease the likelihood that a new innovation will be adopted by members of a given social system. The theory predicts that media as well as interpersonal contacts provide information and influence opinion and judgment.

While trying to establish how innovation occurs, Rogers (1995) asserts that diffusion of innovation takes place in four stages: The first stage is the invention where diffusion through the social system takes time and has consequences. At this stage information flows through networks. The nature of networks and the roles opinion leaders play in them determine the likelihood that the innovation will be adopted. Innovation diffusion

research has attempted to explain the variables that influence how and why users adopt a new information medium, such as the Internet. Opinion leaders exert influence on audience behavior via their personal contact, but additional intermediaries called change agents and gatekeepers are also included in the process of diffusion. After the invention the innovation may go through five stages of adoption starting from innovators then early adopters, early majority, late majority and finally the laggards (Pijpers et al., 2002).

### **Technology Acceptance Model**

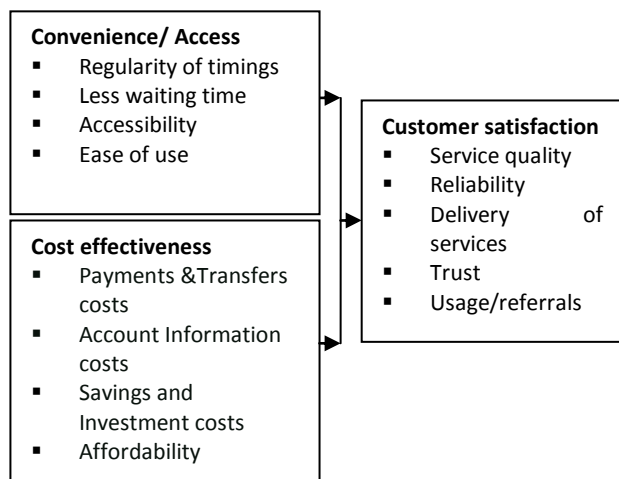
Technology Acceptance Model (TAM) is one of the most researched areas in information technology, particularly in explaining the adoption of information technology systems (Park, 2009). The theory was originally designed to predict users' acceptance of ICT and usage in an organisational context. Generally, the model can be used to explain user behaviour across a broad range of end-user computing technologies and user populations (David, 1989).

The TAM focuses on two particular beliefs, namely, perceived usefulness (PU) and perceived ease of use (PEU) of innovation, which play an important role from the perspective of innovation acceptance behaviour. Prior empirical studies strived to explain the determinants and mechanisms of users' adoption decisions on the basis of the TAM with the conviction that the adoption process influences successful use of particular technology systems (Liao et al., 2009).

The TAM focuses on the attitude explanations of intention to use a specific technology or service and is a widely applied model for user acceptance and usage. Bertrand and Bouchard (2008) indicate that a number of analyses on the TAM have demonstrated that it is a valid, robust, and powerful model for studying user acceptance of innovation. The model is specifically aimed at building a foundation for understanding the effects of external factors on internal beliefs,

attitudes, and intentions. In their application of TAM to study adoption of M-Banking in Kenya, Lun et al., (2012) revealed that perceived ease of use, perceived usefulness, perceived self-efficacy, and perceived credibility significantly influenced customers' attitude towards usage of M-banking.

### Conceptual Framework



**Independent Variables**      **Dependent Variable**

**Figure 1: Conceptual Framework**

### Convenience of Mobile Banking

Strategic implications and customer perception of m-banking services are explored (Laukkanen, 2005) with a focus on the consumer value creation and a better understanding about the customer-perceived value of m-banking services. For instance, mobile internet service has been quite popular in Japan (over 60 million users in 2003) especially for those young and single consumers (Scornavacca, 2004). Mobile phone operators have identified m-banking/m-payments systems as a potential service to offer customers, increasing loyalty while generating fees and messaging charges (infoDEV, 2006). There is no universal form of m-banking; rather, purposes and structures vary from country to country. The systems offer a variety of financial functions, including micropayments to merchants, bill-payments to utilities, transfers between individuals, and long-distance remittances. Currently, different institutional and business

models deliver these systems. Some are offered entirely by banks, others entirely by telecommunications providers, and still others involve a partnership between a bank and a telecommunications provider (Porteous, 2006).

According to Njenga (2009), mobile banking services can offer services such as; Account information, which entails mini-statement enquiry and checking account history, alerts on account activity or passing of set threshold, monitoring of term deposits, access to loan statements, access to card statements, mutual funds/equity statements, insurance policy management, pension plan management and status on cheques, stop cheque payments. Payment and transfer services which include; domestic and international transfers, micro payment handling, mobile recharging, commercial payment process, bill payment processing, peer to peer payment, business to business payment. Saving and investment services which include; portfolio management services, real-time stock quotes, personalized alerts, notification on security prices. Support services that entail status of request for credit including mortgage, approval and insurance coverage, cheque book and card requests. Exchange of data messages and email services which include; complaint submission and tracking, communication on new ATM location. Contact service which includes general information such as wealth updates, news loyalty-related offers and location-based services (Njenga, 2009).

Mbogo (2010), observed that mobile banking technology is relatively new business practice in Kenya as it was introduced about ten years ago. Nonetheless, it is being widely used by a large population of the micro-businesses therefore making it thrive in the midst of any banks. A study by Ongwenyi (2012), revealed that banking transactions have increased as a result of the adoption of mobile banking. He also observed that among the products that have transformed the way of banking included payment of bills, account opening, cash deposits and withdrawals.

According to Mattila (2003), the newly emerged mobile banking services represent an innovation where both intangible services and an innovative medium of service delivery employing high technology are present, thus the concepts of innovation and diffusions of innovation are even more intricate as technology and service aspects have an effect on characteristics of mobile banking services.

According to a study conducted by Njenga (2009) on Mobile phone banking usage experiences in Kenya, availability of multiple outlets across the country implies more points of contact with customers as opposed to the traditional banking hall set up. He also found that the flexible operating hours of the MBanking agents leaves them with greater opportunities to satisfy banking requirements that may arise at any time. He also found that although the mobile phone balances may seem low, the fact that there are balances proves that there is storage which can be perceived as acceptance of deposits. This is a significant indication of the high value placed on the convenience associated with the use of the mobile payment services.

### **Costs Effectiveness of Mobile Banking**

Mobile banking is indeed effective on cost and dispenses services to the unbanked due to the fact that there is no need for branches physical establishment to aid the customers. It is simply a branchless bank model that has the capabilities of handling limited bank dealings through the mobile phone (infoDEV, 2006). M-banking is a cost effective way to provide banking services to the unbanked because there is no need to set up physical branches to facilitate customers it called as it is 'branchless banking'. It is branchless bank model includes enhanced ability to carry out limited banking transactions via mobile phone (Porteous, 2006).

Banks should develop their m-banking system and register their customers electronically for m-banking. It is noted that, initial cost for

establishment of m-banking system may be high but marginal cost for additions of new customers in m-banking will declines continuously till full utilization of existing installed capacity. Connectivity for mobile device is not the part of banking service it is duty and part of business of telecommunication department and cellular service providers. Hence, banks should only lease the telecommunication lines provided by telecommunication department to provide access to the customers (Vaughan, 2007).

### **Customer Satisfaction**

The degree of satisfaction by consumers which has been studied widely has been mostly due to motives and attitudes of consumers (Mahajan, 1994). According to McColl-Kennedy and Schneider (2000), consumers demographic, the way they behave towards various mobile banking technologies and motivation towards using various banking technologies as well as their individual acceptance are some of the factors that predetermine the satisfaction of each user of mobile banking or internet, as established from a study carried out on how consumer adopt to mobile banking and their satisfaction.

Schindler (2012) argues that customer service delivery is one of the most important tools of success in any business. He argues that the level of customer service determines how loyal customers will be and whether they will be able to do a repeat purchase. One of the ways through which an organization can enhance customer service delivery is through creating business to customer loyalty. A business needs to know its customers well and have a close relationship with them. This makes customers feel part and parcel of the business. Personalized customer service is very important in ensuring enhanced business to customer loyalty.

According to Hanks (2010) customer service delivery may be easily measured using four basic attributes. The first attribute that can be used to measure customer service delivery is service



accessibility. Accessibility of services can be enhanced through use of information communications technology such as mobile applications and use of customer flow management technology. The other measure of customer service delivery is quality of service. The quality of service will be determined by value addition and accuracy of the services being provided. The quality of service can be enhanced through integration and enhancement of internet and web enabled applications. Effectiveness is also among the measures of customer service delivery. The cost involved in delivering timely and useful services is important. Customers are more interested in accessing timely services as and when they need them.

Hanks (2010) further assert that customer service experience involves the measurement and ensuring improvement of five main areas. The first area is the identification of the product or service the customer seeks to buy or access from the organization or business. Businesses need to enhance and improve their products in order to meet customer needs. The other area is the person or team that is involved in providing the service. The process used to deliver the service is also very important in ensuring better service delivery. The atmosphere and location of the service is also important to the customer as far as service delivery is concerned. The last area relates to the confidence and reassurance felt by customers whenever they access services.

Zift (2006) carried a study that showed that many users of mobile phones were not aware of the existence of mobile banking services being offered by MFIs while others found online bank sites being complex as the reasons why consumers were reluctant to take advantage of mobile banking services. Daniel (1999) investigated a model of trust from consumers who are in India where he found the antecedents of trust being 'opportunistic behaviour', 'communication' and 'shared values', with the last

two being quite significant and important as they influence consumers trust and commitment.

Black, et al., (2002), study showed that consumers' attitude on mobile banking acceptance and the manner in which they behave depends on whether consumers are computer literate or had prior knowledge on technologies, where prior experience with computers had more impact on the use mobile banking, while consumers who were satisfied with the existing delivery channels seemed to want to keep to their current banking services. In addition, references made by those already using mobile banking services including family members or other groups, influenced consumers' attitudes towards acceptance, in addition to whether they are dissatisfied with the banking services they are already using.

### **Empirical Review**

Morawczynski, (2009) examined the adoption, usage and outcomes of mobile money services using the case of M-PESA in Kenya. From his findings, he noted that since being launched in 2007, the service has seen phenomenal growth in Kenya. Over 7.5 million users, or 34% of the adult population, have registered with M-PESA. The analysis was presented from two perspectives. First, the socio-technical systems framework was used to present M-PESA as a complex system rather than an isolated application. This perspective made it clear that M-PESA grew rapidly because it had a dedicated team of system builders. These individuals took numerous strategies to enroll the elements and maintain the stability of the entire system. They further worked to engineer the social, economic, legal and political environments of the technology. The analysis showed that a whole industry for mobile money developed as a result of M-PESA's success.

Tchouassi (2012) sought to find out whether mobile phones really work to extend banking services to the unbanked using empirical Lessons from Selected Sub-Saharan Africa Countries. This

study sought to discuss how mobile phones could be used to extend banking services to the unbanked, poor and vulnerable population. The study noted that poor, vulnerable and low-income households in Sub-Saharan Africa (SSA) countries often lacked access to bank accounts and faced high costs for conducting basic financial transactions. The mobile phone presented a great opportunity for the provision of financial services to the unbanked. In addition to technological and economic innovation, policy and regulatory innovation was needed to make these services a reality.

Donner and Tellez (2008) did a study on mobile banking and economic development where they sought to link adoption, impact, and use. The study established that through offering a way to lower the costs of moving money from place to place and offering away to bring more users into contact with formal financial systems, m-banking/m-payments systems could prove to be an important innovation for the developing world. However, the true measure of that importance required multiple studies using multiple methodologies and multiple theoretical perspectives before answering the questions about adoption and impact.

Wambari (2009) studied mobile banking in developing countries using a case of Kenya. This study sought to establish the importance of mobile banking in the day to day running of small businesses in Kenya and to understand the challenges involved in using m-banking as a business tool and appreciate the advantages and disadvantages therein. This study elaborated that the adoption and use of mobile phones is product of a social process, embedded in social practices such as SMEs Practices which leads to some economic benefits.

Kigen (2010) studied the impact of mobile banking on transaction costs of microfinance institutions where he found out that by then, mobile banking had reduced transaction costs considerably though they were not directly felt by the banks

because of the then small mobile banking customer base. He sought to determine the impact that mobile banking bore on transactional costs of microfinance institutions. Kingoo (2011) studied the relationship between electronic banking and financial performance of commercial banks in Kenya where he paid keen attention on the microfinance Institutions in Nairobi. He actually looked at the wider electronic banking.

## **RESEARCH METHODOLOGY**

This study adopted a descriptive survey design. The target population comprised of customers from the 16 commercial banks operating in Ongata Rongai. This study involved two step sampling. This was to ensure the researcher sampled the banks and customers. For the banks purposive sampling was used to select banks that had been in operation for a period of 5 years in Rongai which translated to 5 commercial banks out of 16 Commercial banks. According to Mugenda and Mugenda (1999), at least 30% of the cases per group were required for research.

The target population consisted of over 10,000 customers who had adopted mobile banking services and hence was defined as a large population. The 150 potential respondents were selected using simple random sampling method. To avoid biasness the respondents were distributed in the same ratio which was 20% of the total sample size from the selected banks. The researcher used a questionnaire as a data collection tool. The questionnaire comprised of both open and closed ended questions. The use of structured questionnaire ensured consistency of questions and answers from the respondents. A questionnaire was more preferred by respondents due to anonymity. The questionnaire was used to collect data from the respondents about mobile banking, costs effectiveness, convenience, security and customer satisfaction. The questionnaires were issued to the respondents through informal self-introduction. The questionnaires were sent to the respondents under a questionnaire forwarding letter

accompanied by an introduction letter from the University. Follow ups were made and the fully completed questionnaires were picked from the respondents later by use of a research assistant.

In this study, data collection instrument which was a questionnaire was tested on 10% of the sample as recommended by researchers. Cronbach alpha was then calculated for all statements in the questionnaire. Cronbach alpha was a correlation coefficient between two sets of data. The questionnaires were then coded and input into SPSS version 20 for running the Cronbach reliability test. The reliability of the questionnaire was tested using the Cronbach's Alpha correlation coefficient with the aid of Statistical Package for Social Sciences (SPSS) software. The results were then used to establish the reliability of the questionnaire as a research tool. In order to test and enhance the validity of the questionnaire, the researcher selected two managers randomly and research supervisor and discuss the contents of the questionnaire.

The data collected was aligned with the research questions and objectives so that inference was drawn for comprehensive observations and discussion that led to useful conclusions and recommendations for the research study.

## **RESULTS AND DISCUSSION**

The number of questionnaires administered to all the respondents, was 150. A total of 115 questionnaires were properly filled and returned from the bank customers. This represented an overall successful response rate of 77%. The study sought to find out the services that the respondents enjoy with the Bank. 51.3% of the respondents indicated over the counter deposit and withdrawal services, 33.9% indicated swift transfer services and 96% indicated interbank transactions. Only 5.2% of the respondents that indicated they enjoyed ATM deposit and withdrawal services. The respondents were asked to indicate the mode of banking channel they use. 50.4% indicated mobile banking while 39%

indicated internet banking and 17% indicated others.

The respondents were asked to indicate the length of period they have used the Mobile banking service. 63% of the respondents had worked for more than two years and 37% had worked for less than two years.

### **Descriptive Statistics**

This section presents the descriptive statistics for the study variables.

#### **Convenience of Mobile Banking**

The first objective of the study was to determine the influence of convenience of mobile banking on customer satisfaction of commercial banks in Ongata Rongai. The respondents were asked to the convenience they enjoy through mobile banking. 80% of the respondents indicated reduction of payment and transfer costs, 74.8% indicated account information costs reduced while 76.5% indicated savings and investment costs reduced and 83.5% indicated affordability of services. The study findings were in line with Ongwenyi (2012), who revealed that banking transactions have increased as a result of the adoption of mobile banking. He also observed that among the products that have transformed the way of banking included payment of bills, account opening, cash deposits and withdrawals.

86.9% of the respondents agreed that there was reduction of time to access banking services, 85.2% agreed that mobile banking was a convenient way of providing customer service, 86.1% agreed that mobile banking saved customer time since they no longer need to physically visit the banking hall while 78.2% agreed that mobile banking saved customers from lots of paper work and 74.2% agreed that mobile banking service was very flexible and comfortable to use. The mean score for the responses was 4.10 which indicated that many respondents agreed to the statements on influence of convenience of mobile banking on customer

satisfaction of commercial banks. The results were consistent with those of Mattila (2003), who asserted that the newly emerged mobile banking services represented an innovation where both intangible services and an innovative medium of service delivery employing high technology were present, thus the concepts of innovation and diffusions of innovation were even more intricate as technology and service aspects had an effect on characteristics of mobile banking services. The findings were also supported by Tchouassi (2012) who sought to find out whether mobile phones really worked to extend banking services to the unbanked using empirical Lessons from Selected Sub-Saharan Africa Countries. This study sought to discuss how mobile phones could be used to extend banking services to the unbanked, poor and vulnerable population. The study noted that poor, vulnerable and low-income households in Sub-Saharan Africa (SSA) countries often lacked access to bank accounts and faced high costs for conducting basic financial transactions. The mobile phone presented a great opportunity for the provision of financial services to the unbanked. In addition to technological and economic innovation, policy and regulatory innovation was needed to make these services a reality.

### **Cost Effectiveness of Mobile Banking**

The respondents were asked to indicate the cost effectiveness they have experienced with Mobile banking. 87.8% of the respondents indicated that reduction of payment and transfers costs, 80% indicated account information costs reduced while 74.8% indicated savings and investment costs reduced and 76.5% indicated affordability of services. This was in line with scholars such as infodev (2006) and Porteous (2006) who argued that mobile banking was indeed effective on cost and dispenses services to the unbanked due to the fact that there was no need for branches physical establishment to aid the customers. It was simply a branchless bank model that has the capabilities of handling limited bank dealings

through the mobile phone. M-banking is a cost effective way to provide banking services to the unbanked because there was no need to set up physical branches to facilitate customers it called as it is 'branchless banking'. It is branchless bank model includes enhanced ability to carry out limited banking transactions via mobile phone.

The second objective of the study was to establish the effect of cost effectiveness of mobile banking on customer satisfaction on commercial banks in Ongata Rongai. 72.2% of the respondents agreed that mobile banking services were highly efficient and would improve quality of services delivery, 71.3% agreed that mobile banking had helped in reduction in cost of accessing services such as bank statement and 72.1% agreed that M-banking was a cost effective way to provide banking services to the unbanked because as there was no need to set up physical branch to facilitate customers. Finally 76.6% of the respondents agreed that mobile banking had low transaction cost such as cash deposits, withdrawal. The mean score for the responses was 3.95 which indicated that many respondents agreed to the statements on influence of cost effectiveness of mobile banking on customer satisfaction of commercial banks. Results were in tandem with those of Kigen (2010) who studied the impact of mobile banking on transaction costs of microfinance institutions where he found out that by then, mobile banking had reduced transaction costs considerably though they were not directly felt by the banks because of the then small mobile banking customer base. He sought to determine the impact that mobile banking bore on transactional costs of microfinance institutions.

### **Customer Satisfaction**

The study sought to gather information regarding customer satisfaction in regard to mobile banking in Kenya. 62.6% of the respondents agreed that mobile banking service increases customer loyalty, 75.7% agreed that mobile banking service was very flexible and comfortable to use while

82.7% agreed that mobile banking helped customer in attaining personal satisfaction. In addition 74% of the respondents agreed that there was less waiting time to receive banking services in Mobile banking, while 77.3% agreed that great value on the improved quality of life, inter relationship and other personal gains could be achieved from using of mobile banking services and 83.5% agreed that there was a wide range of products offered through mobile banking. The mean score for this section was 3.88 indicating that majority of the respondents agreed to statements on influence of mobile banking on customer satisfaction. The findings are in agreement with Schindler (2012) argued that customer service delivery is one of the most important tools of success in any business. He argues that the level of customer service determines how loyal customers will be and whether they will be able to do a repeat purchase. One of the ways through which an organization can enhance customer service delivery is through creating business to customer loyalty. A business needs to know its customers well and have a close relationship with them. This makes customers feel part and parcel of the business. According to Hanks (2010) customer service delivery may be easily measured using four basic attributes. The first attribute that can be used to measure customer service delivery is service accessibility. Accessibility of services can be enhanced through use of information communications technology such as mobile applications and use of customer flow management technology. The other measure of customer service delivery is quality of service. The quality of service will be determined by value addition and accuracy of the services being provided. The quality of service can be enhanced through integration and enhancement of internet and web enabled applications.

## **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **Summary of the Findings**

The study set out to achieve and achieved the established objective; to establish the effect of mobile banking strategies for customer satisfaction of commercial banks in Kenya, by examining and analyzing data from a representative sample of commercial banks within Kenya. Banking through the internet and mobile devices has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labor intensive methods with automated processes thus leading to higher productivity, profitability and customer satisfaction.

### **Convenience of Mobile Banking**

The first objective of the study was to determine the influence of convenience of mobile banking on customer satisfaction of commercial banks in Ongata Rongai. Commercial banks in Kenya have adopted online banking which enables access of banking services on computers or mobile phones from wherever the client is without having to go to the banking hall. Given the increase in the number of commercial banks that had adopted online banking the results showed an increase in the strategies employed by the commercial banks as they tried to gain a competitive advantage. The Pearson correlation coefficient results indicated that there existed a positive and significant between convenience of mobile banking and customer satisfaction. The results reveal that convenience of mobile banking was statistically significant in explaining customer satisfaction.

### **Cost Effectiveness of Mobile Banking**

The second objective of the study was to establish the effect of cost effectiveness of mobile banking on customer satisfaction on commercial banks in Ongata Rongai. Results indicated that cost effectiveness of mobile banking had an influence

on customer satisfaction. This was evidenced from the response of the respondents who agreed with the statements that mobile banking services were highly efficient and would improve quality of services delivery, mobile banking helped in reduction in cost of accessing services such as bank statement and M-banking was a cost effective way to provide banking services to the unbanked because as there was no need to set up physical branch to facilitate customers. Correlation results also indicated that there exist a positive and significant between customer satisfaction and cost effectiveness. Regression results indicate that cost effectiveness of mobile banking was statistically significant in explaining customer satisfaction.

### **Conclusions**

The study concluded that there has been tremendous increase in the online banking uptake in commercial banks in Kenya given that majority of the respondents had used mobile or online banking. This increase in mobile banking incomes was as a result of increased innovations and increased use of mobile phones among customers which further had increased customer satisfaction. The high reliance on mobile phones and other communication devices had enhanced increased use in business transactions which also involved even the commercial banks.

### **Convenience of Mobile Banking**

Convenience was found statistically significant in explaining customer satisfaction. The study also concludes that commercial banks are implementing mobile and online banking strategies to gain competitive advantage given that 80% of the respondents revealed that the extent of services customers have access to mobile banking is large due to convenience. The study concludes that the customers were happy with mobile banking services since they could access all their banking services through mobile banking.

### **Cost Effectiveness of Mobile Banking**

The study concludes that cost effectiveness was statistically significant in explaining customer satisfaction. The study concludes that mobile banking is indeed effective on cost and dispenses services to the unbanked due to the fact that there is no need for branches physical establishment to aid the customers. The costs for accessing services are also low and easily affordable by most customers.

### **Recommendations**

There is need to review the transaction speeds offered; whether too fast or too slow, or whether they should offer different options. There is need to seek new partnerships in financial transactions as well as offer lending options through the mobile phone. Customers should also be made aware of changes to the system. This would enable them appreciate and take advantage of the convenience offered at the tip of their fingers.

Banks should continue embracing innovativeness since innovation is highly critical for the banks survival and sustainability. There is need for banks to invest in state of the art technology and regular training of their staff to enhance employee skills. The bank should constantly find out customer requirements and conduct benchmarking on best practice. Cost effective processes, new products and services should be developed to satisfy and attract customers. Adequate resources should be allocated for research and development to enhance service delivery. The more innovative a bank is the more it is likely to attract customers. There is more need than ever for convenience of customers who wish to spend less and keen to getting the highest possible satisfaction. Customers are won by convenient and personalized banking services. Commercial banks will need to enhance diversification of their services.

For commercial bank managers, the study recommends that management should invest more in e-banking infrastructure like ATMs in

areas that are easily accessible to clients. Equally, Management should invest in e-banking delivery channels like telephone banking, internet banking, WhatsApp application banking through mobile phones, short code passwords for instant access to bank accounts via mobile phones among others.

Finally the study recommends that for banks to gain a competitive advantage through mobile banking, the management should ensure that e-banking strategies are not done in isolation but in line with overall market growth strategies, human capital strategies and organizational specific variables to enhance competitive advantage over competitors. In the banking industry, e-banking strategies that are specific to particular commercial banks can enhance competitive advantage that enables a bank to perform at higher levels compared to those who don't have. Therefore commercial bank management should ensure they have enhanced technology, quality of

work, efficiency in delivery of services as part of enhancing industrial economies that will enhance their performance and increase their customer satisfaction.

#### **Areas for Further Study**

The financial sector is continuously seeking to ensure financial deepening and inclusion in the country. The study therefore recommends that another study be conducted in Kenya to establish whether the existence of online banking have enhanced financial deepening among the unbanked population in Kenya especially in the rural areas.

The study can also be replicated in other sectors or industries that have adopted such innovations; not only in Kenya but also in other countries within the African region who are also highly adopting similar innovations; this would help in drawing a clear conclusion on the relationship between these variables.

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