EFFECT OF MOBILE BANKING ON THE FINANCIAL PERFORMANCE OF BANKING INSTITUTIONS IN KENYA

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ABSTRACT

The introduction of a myriad of Mobile Money Services (MMS) by various mobile money service providers to customers has become common. In the recent years, mobile banking has gained competitive advantage through diversification, maintaining customer loyalty. It has also assisted in increasing market share to grow their profitability and improve financial position. Mobile banking offers millions of people a potential solution in emerging markets that have access to a cell phone, yet remain excluded from the financial mainstream. It can make basic financial services more accessible by minimizing time and distance to the nearest retail bank branches as well as reducing the banks own overheads and transaction- related costs. Kenyan banking institutions have continued to use huge investments in mobile technology based on innovations and training of manpower to handle new technologies. The growing investment in mobile technology and bank financial performance in Kenya need various studies to establish whether mobile banking has contributed to the financial performance of banking institutions in Kenya. This study focused on mobile banking technology in relation to its effect on commercial banks' financial performance indicators namely: Return on Assets (ROA) and Return on Equity (ROE). The objective of this study focused on the effect of mobile banking on the financial performance of commercial banks in Kenya. The study reviewed theoretical literature guided mainly by the financial intermediation, innovation diffusion and balanced scorecard theories as well as existing empirical literature on the effects of mobile banking on the financial performance of banking institutions giving attention to the gaps in the research literature. The study applied descriptive research design. The target population included the 42 commercial banks operating in Kenya as at December 2014. The key study instruments used to collect primary data were questionnaires. The analysis of the quantitative data was limited to descriptive statistics while qualitative data was presented through narration. The study established that the number of mobile banking transactions has tremendously increased in the last five years since the introduction of M-banking. The study thus concludes that, banks that have adopted M-banking services have to a large extent increased their customer outreach, and hence have improved their financial performance. The findings revealed that many mobile banking products are being offered by banks such as Fund Transfer between Accounts/ E-funds transfer, Bill Payment, order for cheque books and bank statements and therefore concluded that the financial performance of the banks that provide these mobile banking products has improved because they ensure efficiency of the banking services.

Key Words: *Mobile Banking, Financial Performance, Banking Institutions*

INTRODUCTION

In recent years banks have developed innovative products and offered a wide range of services in an effort to increase efficiency which is the ultimate goal of banks. Mobile banking refers to the access of banking services and facilities using electronic mobile devices such as mobile phones and PDAs. (Porteous, 2006). Although various, and at times competing, labels and definitions have been used when discussing the provision of financial services through mobile phone networks. This study uses the increasingly popular term "mobile money" to refer to the convergence of mobile telephone and financial services.

Tiwari, Buse and Herstatt (2006) define mobile banking as any transaction, involving the transfer of ownership of rights to use goods and services, which is initiated and/or completed by using mobile access to computer- mediated networks with the help of an electronic device. They further indicate that mobile banking refers to provision of bank-related financial services with the help of mobile telecommunication devices. Mobile banking is most often performed via SMS or mobile internet, but can also be used by special programs called clients downloaded to the mobile device (Al-Jabri, 2012).

M-banking refers to the use of mobile telecommunication devices to offer banking services. For example, customers can use mobile phones or personal digital assistants (PDAs) to withdraw money from their bank (Saleem & Rashid, 2011).

Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or tablet (Darrat, 1999). Porteous, 2006 classified m-banking into two, firstly, transformational m-banking, which is the provision of banking services using mobile phones to reach unbanked population. Secondly, additive M-Banking, in which mobile phone is simply an additional channel that is used to improve banking services to the already banked.

Mobile banking has increased provision of financial services with a wider choice of services geared to all levels of society (Vaidya, 2011). Mobile banking differs from mobile payments, which involve the use of a mobile device to pay for goods or services either at the point of sale or remotely, analogously to the use of a debit or credit card to effect an EFTPOS payment (Darrat, 1999).

In both the developed and developing countries, mobile phones have become the primary form of telecommunication (Bhavnani,Chiu,Janakiram & Silarszky,2008).The northern European countries are among the most advanced ones in adoption of different new mobile technologies. In 2003, M-Banking in Finland enabled services such as checking account balances, funds transfer, payment of bills, share dealings, portfolio management and purchase of insurance. Mari, Rafael and Francisco (2007) established that product and service delivery innovations contribute positively to regional Gross Domestic Product (GDP), investment and gross savings growth. These sentiments are shared by Hendrickson and Nichols (2011), while studying the performance of small banks in the United State with regards to interstate branching and found out that banks perform better when they adopt innovations across their branches.

Internet banking has become an important tool of accessing information and communicating. About 44.12 % of Kenyan population has access to internet, with majority accessing the service through mobile phones Communication Commission of Kenya (CCK 2012). Over the last ten years, the financial sector in Kenya has seen dramatic changes. This has been made possible by factors including; development in the wider economy, policy and regulatory reforms, increased competition and new technology. The amendment of the banking act in 2009 finance bill, passed in to law at the end of the year allowed banks to use small shops, petrol stations, pharmaceutical companies and other retail outlets as agents.

Mobile banking offers millions of people a potential solution in emerging markets that have access to a cell phone, yet remain excluded from the financial mainstream. It can make basic financial services more accessible by minimizing time and distance to the nearest retail bank branches (CGAP, 2006) as well as reducing the bank's own overheads and transaction-related costs. Mobile banking presents an opportunity for financial institutions to extend banking services to new customers thereby increasing their market (Lee, & Kim, 2007).

Statement of the Problem

As technology becomes the order of the day and new development in the economy creates new opportunities which are hard to assume, many organization are looking for ways on how to embrace technology as way of survival. Mobile banking services can be used to raise efficiency and boost business growth through cheap, efficient and reliable money service support systems that reduce the need for cash transaction and the risks associated. The benefits of cashless transaction including less opportunity for fraudulent and criminal activities, and mobile money technology (Wishart 2006) have increased adoption rates, (Mbogo 2010).

The introduction of Mobile banking Services draws upon the successful marriage of two fundamentally different technological platforms; banking and mobile telephone. Commercial banks are entering into partnership with companies that provide utility service, mobile service operators with the aim of providing M-banking services. These Services have seen an unprecedented development and growth during the last few years and it is becoming a major catalyst for economic and social development in many countries Kenya inclusive. Mobile banking has received overwhelming uptake in Kenya since its introduction in 2007. Commercial banks have continued to deploy huge investments in mobile banking services. In addition more and more banks in Kenya are strategically launching newer and newer Mobile Banking platforms hence the need to investigate the effect of mobile baking on financial performance of the commercial banks. In addition, today many people in Kenya are still without effective access to mobile banking services and this may have also affected the financial performance of commercial banks. The main literature gap exists in revealing how mobile banking has affected the financial performance of the banking industry in Kenya. Therefore this study sought to fill this knowledge gap by establishing the effect of Mobile Banking on financial performance of Commercial Banks in Nairobi Central Business District (CBD).

General Objectives of the study

The study sought to determine the effect of mobile banking on the financial performance of banking institutions in Kenya. The specific objectives were to establish the effect of mobile banking transactions volume and mobile banking products on the financial performance of commercial banks.

Research Questions

The following research question guided the study:

i. What are the effects of mobile banking transactions volume on the financial performance of commercial banks?
ii. To what extent do mobile banking products influence the financial performance of commercial banks?

Scope of the Study

The study concentrated on assessing the effect of mobile money services on financial performance of commercial banks in Nairobi CBD. The reason being that CBD is headquarters of most of the banks and there are many branches for most banks. In addition CBD houses different types of banks. The study covered commercial Banks licensed by the Central Bank of Kenya.

The commercial banks that formed the units of analysis of the study are those that were in operation by close of business of 31st December, 2014. The financial performance measures used were the volume of transactions, mobile banking products and

accessibility to mobile banking services and acceptability mobile banking services on financial performance of commercial banks in Nairobi CBD.

LITERATURE REVIEW

Theoretical Review

Financial Intermediation Theory

Gurley and Shaw 1960 established the financial intermediation theory which they based on the theory of informational asymmetry and the agency theory. In principle, the existence of financial intermediaries is explained by the existence of the following categories of factors: high cost of transaction, lack of complete information in useful time assumptions there is perfect market where no one participant can influence the prices; the placement/borrowing conditions are identical for all participants; there are no discriminatory fees; the lack of competitive advantages at the level of participants; all financial securities are homogeneous, dividable and transactional; there are no transaction costs for obtaining information or of insolvency; all participants have immediate access to the complete information regarding the factors and elements that can influence the current or future value of the financial instruments.

The financial intermediation theory highlights the role of financial intermediaries in economy; most of the studies performed highlight their role in achieving a durable economic growth, and the impact of regulations on financial intermediation, accentuating the role of the central bank in the regulation, supervision and control of financial intermediaries. This theory assisted in analyzing the transactions behavior of commercial banks, and how it affects their financial performance.

Innovation Diffusion Theory (IDT)

This theory was officially introduced by Bradley and Stewart in the year 2002 and it affirms that firms engage in the diffusion of innovation in order to gain competitive advantage, reduce costs and protect their strategic positions. The innovation diffusion theory put forward by Rogers in 1962 is a well -known theory that explains how an innovation is diffused among users over time (Liu and Li, 2009). It also helps to understand customers‟ behavior in the adoption or non-adoption of an innovation (Vaugh and Schavione, 2010; Lee and others, 2003). The theory depicts that the adopters of any innovation follow a bell-shaped distribution curve which may be divided into five parts to categorize users in terms of innovativeness (Liu and Li, 2009). Rogers classified users as innovators, early adopters, early majority, late majority and laggards (Liu and Li, 2009).

The adoption and use of mobile banking has the potential to extend the limited nature and reach of the formal financial sector to the poor and rural population in Africa. Most of the existing literature is from the developmental/practitioners' arena with a few scholarly studies emerging (Mas and Morawczynski, 2009).

Although most of the studies from the practitioners are not peer reviewed, they provide valuable information on actual usage and contextual information on the development and use of the phenomenal. For example, Ivatury and Pickens (2006) provided valuable insight into the characteristics of the early adopters of WIZZIT, one of the first major initiatives dedicated to offering mobile banking to the poor in South Africa. Also significant are the ethnographic work of Morawczynski during 18 months stay in Kenya (Morawczynski and Krepp, 2011).

By applying the traditional technology acceptance models and frameworks to the adoption of transformational mobile banking services, this study aims to bring the discussion to the mainstream information systems literature. This theory was used to study how various new mobile banking products affects financial performance of commercial banks.

Conceptual Framework

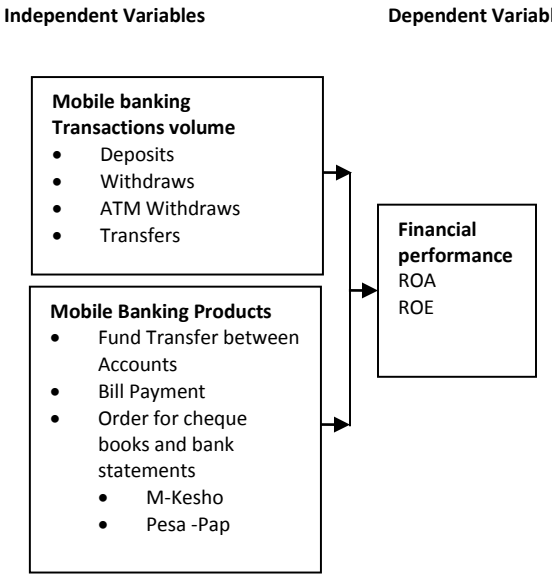

Figure 1: Financial Performance Commercial Banks

Mobile Banking Transactions Volume

In recent years, banks, payment system providers, and mobile operators have begun experimenting with branchless banking models which reduce costs by taking small value transactions out of banking halls into local retail shops, where agents such as airtime vendors, gas stations, and shopkeepers, register new accounts, accept client deposits, process transfers, and issue withdrawals using a client's mobile phone then communicate transaction information back to the telecommunication provider or bank. This enables clients to send and receive electronic money wherever they have cell coverage. They need to visit a retail agent only for transactions that involve depositing or withdrawing cash (Salzaman, Palen & Harper, 2001). The study collected data on the frequency of mobile banking transactions undertaken by the selected commercial banks and investigated their effect financial performance on these banks.

Mobile Banking Products

The terms M-banking, M-payments, M-transfer and M-finance refer collectively to a set of applications that enable people to use their mobile telephones to manipulate their bank accounts, store value in an account linked to their handsets, transfer funds or even access credit or insurance products. These have enhanced accessibility to financial service in both developed and developing world. The first target for these applications was consumers in the developed world. By complementing services offered by the banking system, such as cheque books, ATMs, Voice mail/landline interfaces, smart cards, point of sale networks and internet resources, the mobile platform offers a convenient additional method for managing money without handling cash (Karjaluoto, 2002).

The M-Pesa has forced money transfer companies to lower prices, M-Pesa has also induced these firms and other financial firms to improve their products and services. In some cases, firms have partnered with M-Pesa to offer an integrated service (Njiraini & Anyanzwa, 2008).The study considered data on existence various mobile banking products and their improvement and availability has influenced the financial performance of the sampled commercial banks.

Empirical Review

This section reviews the empirical cases that will guide the study. It consists of the cases governing innovations such as mobile and internet banking as well as those that governs the performance of commercial banks in their operations. A number of studies show that mobile banking has appreciable positive effects on bank productivity, banking transaction, bank patronage, bank services delivery, customers' services and bank services (Yasuharu, 2003, Pooja and Singh (2009) and Franscesa and Claeys (2010), and have positive effects on the growth of banking.

Al-Jabri (2012) studied mobile banking adoption in Saudi Arabia by looking at the application of diffusion of innovation theory. This study sought to investigate a set of technical attributes and how they influence mobile banking adoption in a developing nation, like Saudi Arabia. The study used diffusion of innovation as a base-line theory to investigate factors that may influence mobile banking adoption and use. The findings suggested that banks, in Saudi Arabia, should

offer mobile banking services that are compatible with various current users' requirements, past experiences, lifestyles, and beliefs in order to fulfill customer expectations. This study was useful in understanding and analyzing the effect of the volume of mobile transactions on the financial performance of commercial banks.

Critique of the Literature

According to the findings of above theories review and empirical literature, there is need to research more on economic way which minimizes the operating costs and maximize the revenues of the commercial banks. In addition the above discussion of the theoretical and empirical literature, limited research has been conducted on the economic, and financial on impact of mobile banking on the financial performance of Kenyan banks.

Most of the existing studies have been done in other economies which have different operating environment from that in Kenya.

RESEARCH METHODOLOGY

Research Design

The research design used was descriptive survey design. This design involves collecting of quantitative information and describing categories of qualitative information. The advantages of descriptive design is that it can lead to acquisition of information which can be used to identify variables & hypothetical constructs which can be further investigated.

Target Population

The target population for this study was to be at two levels. The first target population was at institutional level where the study targeted licensed commercial banks in Kenya. The second level of target population was senior management (branch manager and customer service manager) working in the commercial banks operating in Nairobi CBD. The study focused on the 42 commercial banks in Nairobi CBD with about 157 branches in the CBD. The commercial banks have 314 senior management staff of the 157 branches in the CBD.

Sample Size

The Sample Size for the study was all the 42 licensed commercial banks operating in Nairobi CBD as at December 2014. This data is found in the Central Bank of Kenya database. The Central Bank of Kenya supervision report of 2014 also outlines the grouped number of employees in the banking sector as at 31st December 2014. The specific sample size of the study was 180 management staff drawn from the 314 staff working in the selected branches from the 157 branches of the 42 commercial banks operating in Nairobi CBD 2015. The sample size for the study was 57% of the total targeted populations.

Sampling Technique

The 42 commercial banks were stratified into local and multinational/foreign commercial banks. The same formula in (3.4) was applied to determine the 23 local banks and 13 foreign banks which represent the population. Random sampling was then applied to select the 90 branches out of the 157 branches of the selected commercial banks.

Principal Research Tools

The study collected both secondary and primary data. A questionnaire was used to collect primary data for this study. The questionnaires were administered to two senior management staff (branch manager and customer service manager) for each of the selected branch. According to Smith (1984), a questionnaire is the form containing questions or blank tables which are filled by the interviewers after getting the information from the respondents.

Data Collection Procedures

Primary data was collected using questionnaires. Data to be collected was both quantitative and qualitative.

Data Processing and Analysis

The researcher collected both secondary and primary data. For primary data the researcher used questionnaires to obtain quantitative and qualitative

data for analysis which was further validated from analysed results from secondary data quantitative analysis. Both quantitative and qualitative data were collected in this study. The quantitative data was coded and analyzed using SPSS version 21. The study used (ROA) and (ROE) as a measures of financial performance while the overall operating cost as well as other Bank specific factors in form of ratios as independent variables. In order to establish the relationship between use of Mobile banking and Financial Performance of Commercial Banks in Kenya, the following regression model was applied,

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e.$

Where **Y** = Financial performance of Commercial Banks as measured by ROA and ROE.

X_1= mobile banking transactions

X_2=mobile banking products

e = Probabilistic Error Term normally distributed about a mean of 0 and for purpose of computation, the **ε** is assumed to be 0.

β_0= Constant- Other factors such as government expenditure, interest rates and economic growth

βi=Coefficient of Variable ***i*** which measures the rate of change of Y as a function of change in ***i.***

For qualitative data, codes, categories and themes were developed and the data was presented through narration while analysis of the quantitative data was limited to descriptive statistics. The data is presented using tables and figures. In addition the data was analyzed using the presentational tools such as frequency distribution tables, measures of central tendencies' which include the mean and standard deviation and the same are also used to generalize, draw conclusions and recommendations from the data.

RESEARCH FINDINGS AND DISCUSSION

Response Rate

The study targeted a sample size of 180 respondents from which 146 filled in and returned the questionnaires making a response rate of 81.1 %. This response rate was satisfactory to make conclusions for the study.

Reliability Analysis

Table 1: Reliability Coefficients

Scale	Cronbach's Alpha	Number of Items
Volume of Mobile Banking Transactions	0.811	7
Mobile Banking Products	0.781	4

According to Gliem and Gliem (2003), reliability refers to the consistency of measurement. The study used the Cronbach (Alpha – α) model to test the reliability of the data. The volume mobile banking transactions had (α=0.811), then mobile banking products (α = 0.781).

General Information

In this study, the respondents were required to indicate their gender category. From the research findings, the studies revealed that majority of the respondents represented by 55.5 % were males whereas 44.5 % of the respondents were females.

In this study, the respondent were requested to describe ownership of their bank. From the findings, Majority of the respondents indicated that their banks were locally owned as shown by 54.1% whereas 45.9% of the respondents indicated that their banks were foreign owned. These findings show that both types of banks are in operation in the country and have fair representation and clients as indicated by the respondents.

In this study, the respondent were requested indicate the departments of their work. From the study findings, most of the respondents represented by 32.2 % were from the operations department, 29.5 % of

the respondents were from the marketing department, 26.0 % of the respondents were from ICT department while 12.3 % of the respondents were from the product development department. These findings show that respondents were drawn from all the departments in the banking institutions.

In this study, the respondents were requested state period of service in their current banks. The study findings revealed that most of the respondents 44.5% had been working in their current banks for more than 5 years. Other 34.2% of the respondents had been working for between 1 to 5 years while 21.2% of the respondents had been working for less than 1 year. These findings depicts that majority of the respondents had been working for a long period of time in their banks and have understood the effects of mobile banking on the financial performance of their banks.

Study Variables

Mobile Banking Transaction Volumes

These sections consist of the findings on the respondents relating to various mobile banking transactions. The study sought to establish whether the banks had been offering mobile banking services for the last five years. All the respondents indicated that they have been offering mobile banking services to their clients for the last five years. The respondents indicated that they had been using mobile banking for services such as deposits, over the counter withdrawals, ATM withdrawals and fund transfer.

The respondents were required to indicate the average number of mobile-banking transactions on the services per year for the last five years. The findings revealed that most of the respondents indicated that deposits, withdrawals and transfers recorded were over 30 million in number, while ATM withdrawals recorded over 45 million in number. The respondents indicated that this number of transactions had positive effect on the financial performance of their banks for the last five years.

The respondents were requested to indicate the average % increase in the profit within the last 5 years. Majority of the respondents indicated that there has been an increase in the profit of between 41- 60% as shown by 52.7%, while 33.6% indicated that their banks had recorded an increase in profit of between 61% and 80%.On the other hand 13.0% % of the respondents indicated that their banks recorded an increase in profit of between 81% and 100% while 3.4% indicated that their banks had an increase in profit of between 21% and 40%. These findings show that mobile banking had greatly enhanced the profitability of the financial institutions. These findings were found to concur with the findings of Salzaman, Palen & Harper (2001) who noted that in recent years, banks, payment system providers, and mobile operators have begun experimenting with branchless banking models.

Mobile Banking Products

The study requested the respondents to state the M-banking products that their banks offer. The respondents indicated that the M-banking products offered by their banks include, Fund Transfer between Accounts/ E-funds transfer, Bill Payment, order for cheque books and bank statements. These M-banking products were found to have greatly affected the banks revenue in the last five years. The study requested the respondents to indicate the average % they would rate the M-banking products influence on the revenue within the last 5 years. The study findings revealed that most of the respondents indicated that M-banking products have influenced revenue by 40 % as stated by 47.3 %, 35.6 % of the respondents indicated by 60%, 13% of the respondents indicated by 80% while 4.1 % of the respondents indicated by 20%. These findings depict that M-banking products has positively influenced the banks revenue. These findings concur with Karjaluoto, (2002) that by complementing services offered by the banking system, such as cheque books, ATMs, Voice mail/landline interfaces, smart cards, point of sale networks and internet resources, the mobile platform offers a convenient additional method for managing

money without handling cash. This has made the banking services more efficient and hence improved their financial performance.

Financial Performance

The descriptive statistics of the variables were analyzed and recorded. The study sought to determine the respondents' level of agreement with some statements relating to financial performance. The findings revealed that majority of the respondents agreed that M-Banking has enabled their bank to utilize its asset efficiently, as was represented by a mean of 3.829; M-Banking has brought profit, as represented by a mean of 3.788, and that their bank has been having the required capital for the M-Banking services, as represented by a mean of 3.651.

Regression Analysis

In order to establish the relationship between use of Mobile banking and Financial Performance of Commercial Banks in Kenya, the following regression model was applied.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Square Change	F Change	Sig. F Change
1	.884[a]	.781	.769	.08110	.781	4.834	.003

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in table 4.8, the value of adjusted R squared was 0.769 an indication that there was variation of 76.9% on financial performance of commercial banks due to changes in mobile banking transactions volumes, mobile banking products at 95% confidence interval. This shows that 76.9% changes on financial performance of commercial banks could be accounted for by changes in mobile banking transactions volumes, mobile banking products, accessibility of mobile banking and mobile banking services acceptability.

The R being the correlation coefficient, which shows the relationship between the study variables. From the findings, the study found that there was a strong positive relationship between the study variables as shown by 0.884. From the ANOVA statistics, the processed data, which is the population parameters, had a significance level of 0.03 which shows that the data is ideal for making a conclusions on the population's parameter as the value of significance (p-value) is less than 5%. The calculated value was greater than the critical value (2.802<4.834) an indication that mobile banking transactions, mobile banking products, accessibility to mobile banking and acceptability mobile banking services, significantly affects the financial performance of commercial banks in Kenya. The significance value was less than 0.05 an indication that the model was statistically significant.

Table 3: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Constant	3.952	.453		2.865	.003
	Mobile Banking Transactions volumes	.236	.160	.198	1.479	.008
	Mobile Banking Products	.441	.126	.245	1.834	.011

From the data in the above table the established regression equation was

$Y = 3.952 + 0.236 X_1 + 0.441 X_2$

From the above regression equation it was revealed that holding mobile banking transactions volumes, and mobile banking products to a constant zero, financial performance of commercial banks would be at 3.952, a unit increase in mobile banking transactions volume would lead to increase in financial performance by a factor of 0.236, a unit increase in mobile banking products would lead to increase in financial performance by factors of 0.441.76.

SUMMARY OF THE FINDINGS

Effect of the mobile banking transaction volumes on financial performance

The study sought to establish the effect of the number of mobile banking transactions on the financial performance of commercial banks. The findings revealed that the respondents have been offering mobile banking services to their clients for the last five years. The respondents indicated that they had been using mobile banking for services such as deposits, withdrawals, ATM withdrawals and fund transfer. The findings further revealed that the average the volume of mobile-banking transactions on the services per year for the last five years and those deposits, withdrawals and transfers recorded were over 30 million in number, while ATM withdrawals recorded were over 45 million in number.

The respondents indicated that these numbers of transactions had positive effect on the financial performance of their banks for the last five years. The findings showed that mobile banking had greatly increased the profitability of the commercial banks.

These findings were found to concur with the findings of Salzaman, Palen & Harper (2001) who noted that in recent years, banks, payment system providers, and mobile operators have begun experimenting with branchless banking models which reduce costs by taking small value transactions out of banking halls into local retail shops, where agents such as airtime vendors, gas stations, and shopkeepers, register new accounts, accept client deposits, process transfers, and issue withdrawals using a client's mobile phone then communicate transaction information back to the telecommunication provider or bank. They noted that this enables clients to send and receive electronic money wherever they have cell coverage, hence making banking services more readily available to their clients.

Effect of Mobile Banking Products on the Financial Performance

On the influence of mobile banking products on the financial performance of commercial banks, findings revealed that M-banking products offered by their banks some of which include, Fund Transfer between Accounts/ E-funds transfer, Bill Payment, and order for cheque books and bank statements. These M-banking products were found to have greatly increased the banks revenue in the last five years. These findings concur with Karjaluoto (2002) that by complementing services offered by the banking system, such as cheque books, ATMs, Voice mail/landline interfaces, smart cards, point of sale networks and internet resources.

The mobile platform offers a convenient additional method for managing money without handling cash. These have made the banking services more efficient and hence improved the financial performance of the banks.

Conclusion

The study established that the number of mobile banking transactions had tremendously increased in the last five years since the introduction of M-banking. The study thus concludes that banks that the positive acceptability M-banking services have to a large extent increased their customer outreach, and hence have improved their financial performance. Salzaman, Palen & Harper (2001) noted that in mobile banking enables clients to send and receive electronic money wherever they have cell coverage, hence making banking services more readily available to their clients.

The findings revealed that many mobile banking products are being offered by banks some of which include, Fund Transfer between Accounts/ E-funds transfer, Bill Payment, and bank statements and order for cheque books and bank statements. From these findings, the study concludes that the financial performance of the banks that provide mobile banking products has improved as they ensure efficiency of the banking services. Karjaluoto (2002) argues that those by complementing services offered by the banking system, such as mobile banking, banking services are more efficient and hence improved the financial performance of the banks.

Recommendation of this study

The study recommends that the banks should lower the transaction charges incurred by customers, reduce time taken to complete transaction and improve the quality of mobile banking services so as to motivate them use the M-banking services. This will increase the number of transactions and hence improve the financial performance of the commercial banks.

The study draws further recommendations that all the commercial banks need to provide as many mobile banking products as possible. However, the study recommends that proper caution should be taken to ensure that the services offer adequate customers' trust, security as well as their awareness of the M-banking products.

Recommendation for Further Research

This study sought to determine the effects of mobile banking on the financial performance of banking institutions in Kenya. The study suggests that further research be conducted on the effects of mobile banking on the financial performance of banking institutions in Nairobi County and in all Counties within Kenya.

The study recommends an in-depth study to be carried out on the challenges faced by commercial banks in adopting mobile banking in the banking industry in Kenya. These may include macroeconomic factors such as political unrest, interest rates, labour unrest and social cultural perspective would need to be analysed for clear results. Further, the study recommends that a similar study should be conducted among the mobile service provider companies to find out whether it will yield the same results.

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