INTERNATIONAL JOURNAL OF SOCIAL Sciences and Information Technology
ISSN 2412-0294 www.ijssit.com

http://www.ijssit.com

EFFECT OF ELECTRONIC BANKING ON PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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Abstract: *Kenyan commercial banks uses enormous investment in technology-based innovations and training of the human for handling new technologies. The relationship existing between the rising investment in technology-based bank innovation and the financial performance in Kenya banks is an aspect that needs to be intensively researched to critically examine whether electronic banking has significantly contributed to the performance of commercial banks in Kenya. This study was trailed to specifically establish the issues of electronic banking on the performance of commercial banks in Kenya. The research targeted forty one (41) registered commercial banks in the banking industry in Kenya where primary data used. The study applied correlation and regression statistics for analysing with the SPSS. Regression statistics was also utilized in determining the implication of the relationship between the identified variables. The research used descriptive design because it enhanced efficient description that was as valid, reliable, and accurate as much as possible regarding the responses. The results revealed that the overall model was an excellent fit because the adjusted R squared had a value of 0.654. This signifies a strong relationship between Electronic Funds Transfer, mobile banking and operational performance. This indicates that all the variables considered cause a variation of 65.4 % on performance of Kenyan-based commercial banks. Thus, the study recommends the development of the suggested model through involvement of more variables that are relevant in elucidating the distinction. This study has also recommended further research to comprise investigations in other financial institutions like saccos and microfinance.*

Keywords: *Mobile banking, Electronic funds transfer, Bank performance*

1.1 Introduction

Today's business environment has become very dynamic and full of rapid changes resulting from technological advancements, improved awareness and demands that increases the need for electronic banking. Since traditions, banks have been in the front line of harnessing technological advancement for improving their products and services. The business of the 21st century are operating in a multifaceted and competitive organizational environment characterised by various changing conditions that are highly unpredictable. The Information and Communication Technology (ICT) is also centred of this universal variation curve of Electronic Banking System in across the globe.

There are numerous palpable benefits of an electronic mode of transfer unlike the case with the conventional clearing house. This is because banks are progressively switching to modern technology to manage their payments and other services (Kumar 2009). A research conducted in the banking sectors of eleven of the Latin American nations by Yildimirim and Philippatos (2007) indicated that the competition in the banks sector pushes the banks to involve in a distinction processes of the services that they provide, and can kindle financial

modernization. Yildrim and Philippatos (2007) found that various forms of financial innovations are determined by the enhancements in computer and telecommunication technology. The researchers also argue that for some people, the establishment of the Automated Teller Machines marked a significant financial innovation than asset-supported securitization. Some of the value attributes to adoption of technology in banks of developed countries include cost cutting, secure payments, timely payments and easier cash management compared to conventional systems. The banks invests huge amounts of money, for executing the self-banking services with the aim of improving the eminence services provided to the consumers as well as enhancing strategies such as cost leadership and differentiation.

Electronic banking refers to the provision of banks' information and other services to customers via different delivery methods that can be used with diverse terminal expedients such as the mobile phones, a personal computers, or digital television. Electronic Banking cab be described as the umbrella terminology for the progression whereby the client can access the services provided by the bank electronically without having the necessity to visit a brick-and-mortar institution (FinCen, 2000).

E-banking is the automated delivery of new banking services directly to clienteles over electronic, interactive communication channels. E-banking makes use of the internet system for delivery channel by which to achieve banking activity, such as, paying bills, , viewing checking, transferring funds, and savings account balances, repaying mortgage and purchasing financial instruments (Haque et al, 2009). Moreover, e-banking in Malaysian nation is progressively prevalent on growth in information technology and telecommunications. Malaysia's internet banking service (IBS) was recognised in some six years ago (The Star, 2005). IBS is a expediency and new physical banking service which is to accomplish new potential clients as it permits bankers in delivering banking services to a wider section of the market through electronic and interactive communication networks (Bank Negara Malaysia, 2007), with 12 domestic banks offering IBS to 4.5million subscribers currently (Goi, 2005).

The growth of electronic banking services is anticipated to minimize congestions in the banking halls and lessen long queues in banks. Financial services that are based ICT on have made a substantial contribution in decreasing the operational costs of providing financial services (CBK 2009).

The introduction of electronic banking, mobile banking as well as agency banking for instance have had a major impact to banks especially with regards to helping service their customers. These have helped banks to give the customer's anytime access to their banks. The user enjoy the ability to check out their account details, access their bank statements, initiate a transactions such as transfer of money to other accounts and settle for their bills while at the comfort of their homes and offices (Kannabira & Narayan, 2005). Customers do not have to go to the bank to check their account balances; they comfortably do it on phone. This result of e-banking adoption are attributed to greater efficiency and agility in organizations (Shah & Clarke, 2009). The elimination of error and data redundancies also results in increased branch productivity. This enhances reduction in turnaround and processing time, increasing output and enabling greater efficiency in service delivery to their customers. In addition to revenue enhancement, e-banking may enable banks to lower costs of operation by allowing them to reduce expenditures on human resource, buildings and equipments. This leads to lower expenses related to maintaining physical branches. Jayawardhena and Foley (2000) maintain that the cost savings come through combined effects of reduction and better utilization of workforce, more economic usage of space and operational savings that help raise the profit margin by a surprising large number. Banks with high costs of maintaining branch network are motivated to adopt Internet banking by the prospect of future cost savings (Furst et al., 2002). Electronic processing reduces transaction costs and provides an

electronic avenue for bank to deliver services thus lower costs. These cost savings can offer customers and banks alike reduced cost of banking and still provide efficient and varied services.

Commercial banks in Kenya have continued to compete for market share by utilizing several strategies that enhances service delivery and customers' experience in order to expand market share. The main strategy is the use of information technology and innovation through their people. An analysis of the various brochures of commercial banks in Kenya provides a whole range of products and services. These include: current accounts, fixed deposit accounts, goodwill accounts, business accounts, young innovators account, instant access accounts, savings accounts, huduma account and salary accounts. Some banks have adopted various measures on reduction of operating expenses to make them more efficient and active. Kirimi (2016) asserted that lenders in this case financial institutions have been forced to respond to the stiff competition in the banking industry for sustainability. Banks have been left with no other options other than addressing the issue of costs cutting through use of limited resources to improve productivity and maintain the same margin of profits.

1.2 Statement of the problem

The dynamism in the banking environment is posing a lot of challenges to all banks and competitors in the financial market. Tan and Teo (2000) note that the challenge to expand and maintain banking market share has influenced many banks to invest more in making better use of the Internet. The emergence of electronic banking has made many banks rethink their strategies in competitive markets. Electronic banking in Kenya has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labour intensive methods with automated processes thus leading to higher productivity and profitability (Kangogo, 2013). Commercials banks have embarked to the current innovation as a major strategy to survive in the very competitive business environment.

Internet Banking provides clear advantages to both the financial institutions and the customers. From the banks' perspective, Internet Banking has very low cost transactions, compared to human teller banking. According to The Fourth International Conference on Electronic Business (ICEB, 2004) Beijing, e-banking reduces operating expenses such as reduction of customer service staff as customers use more self-service functions, There is less cheque processing costs due to an increase in electronic payments, Costs of paper and distributing mails are significantly reduced because bank statements and other disclosures are presented online, There is less data entry as applications are completed and processed online by customers. On the other hand, according to KPMG (2015), bank's revenue increases from Internet Banking due to; increased account sales, wider market reach, new fee-based income, improved customer satisfaction among others. For users, internet banking offers accessibility, lesser service charges, more reliable information concerning their bank accounts. More particularly, it is more preferable to alternative for the busy individuals because it saves their time of going physically to the bank (Lee & Lee, 2000). However, despite of the competitive advantage achieved in the new technology, commercial banks in Kenya are still experiencing financial crisis, and internet frauds which have not only threatened their profitability but also the security of depositor's funds.

According to Schubert (2015), there are several challenges facing the banking industry, but three stand out. The first is inadequate profitability, in terms of low return on equity (ROE) and low return on investment (ROI) for shareholders. The second challenge placing pressure on banks is the inability to meet consumer expectations. The third challenge is the increasing competition from financial technology companies. This has tended to disrupt the way traditional banking has been done. There is need for banks to adjust quickly to cope with the new developments.

Over the last five years commercials banks have automated their processes by adopting e-banking such as internet banking, mobile banking and electronic funds transfer (EFT).

Siam (2006) conducted a study where the main objective was to investigate the role of electronic banking services on the profits of Jordanian banks. The study further investigated the effects of electronic banking services through the internet and their impact on the financial performance of the sampled banks. The study by Siam based on the findings concluded that the effect of electronic banking services on banks profitability was negative in the short run because of high costs and the much capital invested by the bank in order to have the technical and electronic infrastructure in place, training the employees to be skilled and competent but will be positive on the long run. Davenport (2003) and Jean-Azam (2006) and Oshikoya (2007) proposes that using investing in ICT involves balancing investments and skills, organization and innovation and investment and change entails risks and costs which might reduce bank profits in the short run. Previous studies like Pooja and Singh (2009), Batiz-Lazo and Woldesenbet (2006) provided varying findings regarding the impact of financial innovations on bank's organizational performance. Pooja and Singh (2009) and Franscesa and Claeys (2010), brought out comparable findings and concluded that financial innovations had least impact on bank performance, while Batiz-Lazo and Woldesenbet (2006) and Mwania and Muganda (2011) concluded that financial innovation had substantial contribution to bank performance. Kangogo (2013) conducted a study on the impact of e-banking strategies on performance in the banking industry. However this study did not have specific variables to focus on as the key e-banking strategies.

1.3 General Objectives

The general objective of the study will be to establish the effect of e-banking on performance of commercial banks in Kenya.

1.3.1 Specific objectives

1. To determine the effect of mobile banking on performance of commercial banks in Kenya.
2. To establish the effect of electronic funds transfer on performance of commercial banks in Kenya.

1.4 Research questions

1. To what extend does mobile banking affect the performance of commercial banks in Kenya?
2. What are the effects of electronic funds transfer on performance of commercial banks in Kenya?

2.0 LITERATURE REVIEW

2.1 Theoretical Review

The study will review various theories and models. Technology induced theory and Schumpeter theory of innovation,

2.1.1 Constraint- induced theory

This theory was advanced by Silber (1983) and cited severally by Mukur (2014). This theory is based on the assumption that the main reason for innovation is to increase the firms' profitability. Mukur (2014) noted though there are some external and internal environmental obstacles which distract realization of profit maximization. These barriers tend to undermine the efficiency of financial institutions. White and Frame (2002) stated that profit oriented firms and individuals are constantly seeking new and improved products, processes and organizational structure that will reduce their costs of production, better customer demands and

yield greater profits. The underlying assumption of theory of constraints is that organizations can be measured and controlled by variations on three measures; throughput, operational expense, and inventory. The relevance of the theory of constrains to commercial banks has been well recognized by the government and donors, and various initiatives have been launched to address these weaknesses and assist with capacity building among financial institutions (Mukur, 2014).

2.1.2 Schumpeter Theory of Innovation

Schumpeter (1934) cited by Korir (2014) and Mugane (2015) argued that entrepreneurs who are very innovative create new opportunities for new profits. The innovation becomes a new product in the market which competitors followers (firms) imitate due to the super normal profits enjoyed by the originator of the idea. Schumpeter (1934) emphasized the role of entrepreneurship in finding better opportunities to exploit to generate flow of income. The theory has attempted to differentiate amid the impresarios whose innovations created a profitable environment for new enterprises and the bankers who takes credit to fund the creation of the new ventures (Schumpeter, 1939). In his historical episodes of innovations in the field of banking Schumpeter (1939) argues that there are a positive role for financial innovations in financing the entrepreneurial ventures that stir up growth of the firm. Commercial banks have always ventured into new opportunities in terms of innovation for future growth. Most of these banks have invested heavily in the new technology innovation in their operations taking a look of future increased returns. Innovation and upgrading come from sustained investment in physical as well as intangible assets (Mugane, 2015).

2.2 Conceptual Framework

The independent variables of the study include; mobile banking, internet banking, electronic funds transfer and electronic teller machine whereas the dependent variable for this study was the operational performance of commercial banks.

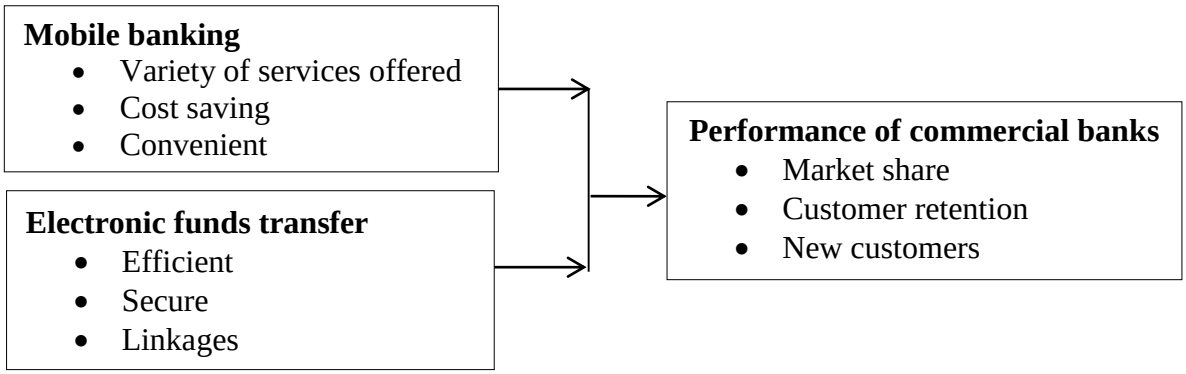

Figure 1 Conceptual framework

2.3 Empirical literature

2.3.1 Mobile Banking

Mobile banking has been defined as the ability to conduct bank transactions through mobile phones. Mobile banking can also be defined as the ability to conduct bank transactions via a mobile device, or more broadly – to conduct financial transactions via a mobile terminal (Drexelius & Herzig, 2001). Over the past few years, mobile banking has continuously developed from simple channel of delivering information to a more

complicated banking transaction channel where various bank services can be accessed. The concept of mobile money banking has been taking root worldwide since the advent of affordable mobile telephone handsets. The poor communities who have no access to the conventional banking services have taken refuge in the use of mobile money banking services. Medhi et al., (2009) state that the rate of uptake of mobile banking services varies in different countries. The variations are also along other parameters such as the type of household, the frequency of usage of the service and the pace of uptake. True to what the author posits, mobile banking has been more prevalent in developing world than the developed world. Mobile banking services in Kenya is perhaps the biggest mobile money revolution news that hit the banking sector in the world early this century. The available data shows that Kenya has the highest users of mobile phone money transaction services in the world. These developments have been driven by the emerging business needs as well as progress in mobile technology (Petrova, 2001).

The major business drivers that have significantly contributed towards mobile banking evolution include customer experience and cost saving in banking operations. Through mobile banking technology, customers are able to enjoy various banking services from their mobile phones. These include simple bank statements, account balance enquiries, funds transfer, alerts on account limit and also payment of several utility bills (Mariga, 2003).

Although consumer demand for more sophisticated mobile services has not been very strong, demand for basic mobile banking is more pronounced compared to the general demand for mobile commerce services (Bansai, 2001). The widely quoted report (Muller-Veerse, 1999) classifies mobile financial services as a key commercial driver for mobile commerce. As already indicated provision of mobile banking relies on a mobile end-user device; currently there are in fact two basic types of mobile end- user devices – the mobile (cellular, cell) phone and the portable handheld computer known as Personal Digital Assistant (PDA).

2.3.2 Electronic Funds Transfer

Electronic Funds Transfer (EFT) refers to a system or an organised electronic structure which enables transfer of funds from one bank account to another. In this system, there is no physical handling of paper money because the transaction is conducted electronically. Direct deposit is one of the most commonly used electronic funds transfer program. This program involves depositing of payroll directly to the bank account of the employee. This program enables employees to access their funds within a short time (Joseph 2006).

Electronic funds transfer has paved way for paperless transactions whereby paper bills, checks as well as stamps have become unnecessary. Several benefits have been realized through the continued use of electronic funds transfer. These include; low administrative fees, improved efficiency, enhanced security and easier storage of documents (Andam, 2003). A banking customer, for instance, can make an electronic fund transfer when she deposits a pay cheque. Similarly, a business owner can make an EFT when she withdraws a cash advance from an automatic teller machine to fund discretionary business expenses (Juma, 2013).

The use of computer technology is a significant factor in the commission of fraud and one of the common electronic frauds is the misuse of electronic funds transfer

(EFT). Globally, transactions on EFT systems are subject to high risk and exposure to fraudulent activities. Financial gain is one of the key motivations behind frauds, other than the desire to master the EFT process, the thrill of the deed, intellectual challenge and employee revenge. The simplicity of modifying a basic text file to obtain large payments is an inducement to commit fraud. By fraudulent alteration of EFT, an individual could steal large sums of money.

Indeed, the computerized nature of modern EFT banking has made it difficult for even veteran banking account patrols to identify and stop certain types of fraud. This isn't to say that using EFT banking initiatives isn't safe; however, the smart banking customer examines her reports regularly to look for inaccuracies. EFTs are a more secure and efficient means of transferring money than, for example, cheques, which are easily lost, stolen and/or altered. However, for EFTs to be effective, the proper controls need to be in place.

Many users of EFT systems simply do not understand how such systems operate or the risks to which they are exposed. They will simply assume that the system they have been given by a bank is a good one without appreciating that the system may have weaknesses or that it is only as secure as the people who operate it are trustworthy.

2.3.3 Financial performance

Performance outcomes result from success or market position achieved (Hooley et al., 2001). Performance can be determined in various ways. It might stand for financial performance, market performance, customer performance or overall performance, the term business performance is mainly used as a general performance measure.

Financial performance refers to measure of how well a firm can use available resources it has to generate revenues (Bessler et al., 2008). It is a term used to reflect how revenues of a firm change from one period to other, or between two or more firms in the same industry. There are many different ways to measure financial performance of a firm, though they should be taken in aggregation (Korir, 2014). Bessler, et al. (2008) noted usually engaged measures of the performance are throughput, sales, export revenues and profits also returns on the assets are also considered.

Operational performance refers to the processes geared at coordination and enhancement of work activities and outcomes within an organization. It is crucial for the success of any organization. Efficient and effective operational performance is expected to improve an organization’s competitive advantage through price/cost, quality, delivery dependability, time to market, and product innovation, customer lead times, inventory levels, and delivery time Ngatia (2013). A well-defined system of operational performance measures can be a powerful means for prioritizing organizational goals and will aid achieving the organizational goals, Kirkendall (2010).

Indicators of efficient operational performance include: improved financial performance, lead time performance, improved responsiveness, quality products, customer loyalty, innovation, and reduction in excess inventory levels and improvements in product/process design, Johnson et al. (2003). Evaluation of operational performance of organizations should utilize both financial and non-financial measures, although most organizations have not made use of a balanced framework for financial and non-financial indicators.

3.0 RESEARCH METHODOLOGY

The study applied descriptive design method. Descriptive design is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Emory & Cooper, 2005). The population of the study involved commercial banks licensed by the Central Bank of Kenya as 2017. All the commercial banks were included in the study with the respondents being the branch manager. The sampling frame for this study comprise of 41 commercial banks in Kenya. Census sampling will be used to sample the 41 branch managers as respondents which includes operational managers, Finance managers and marketing managers. The total number of respondents for the study was 123 from the 41 commercial banks in Kenya.

The study used questionnaires for all the respondents. A pilot study was carried out on 2 commercial banks namely standard chartered bank and family bank in Nairobi County, Kenya. The purpose for the pilot study was to test the validity and reliability of the questionnaire. Primary data was collected using a semi-structured questionnaire. The researcher used personally administer the questionnaires to the respondents. This used enable the researcher to clarify issues or respond to questions from the respondents. The respondent was given two weeks of filling in the questionnaires. The questionnaires was structured into several parts that used enable the collection of data relating to the background information of the respondent, management support, competition, corporate culture and communication.

Quantitative data was analysed using descriptive statistics to find the mean and standard deviation. This was done with the aid of Statistical Package for Social Sciences (SPSS) version 20.0. Descriptive statistics was also conducted to explain the comparison in the study variables. Frequencies and percentages was used to describe the quantitative data. The analyzed data was presented in form of tables, pie-charts and bar-graphs where applicable. The study used Analysis of Variance (ANOVA) to test the level of significance of the variables on the dependent variable at 95% confidence level. In addition, the study used conduct a multiple regression analysis.

The regression equation was: $\mathbf{Y = \beta 0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon}$

Where Y is the dependent variable performance

X_1–Mobile banking

X_2–EFT

ε -error term

4.0 RESULTS AND DISCUSSION

4.1 Descriptive analysis

4.1.1 Mobile Banking

Table 4.1 Mobile Banking

Opinion Statement	Mean	Std. Deviation
M-banking has reduced the queues in the banking halls	4.36	0.829
M-banking is convenient to both customers and banks	4.35	0.863
The number of registered customers in M-banking has increased over the last five year	4.37	0.864
Introduction of mobile banking has reduced the operational cost of the banks	4.33	0.957
m-banking provide a variety of services to customers	4.351	0.991

The study sought to examine the respondent's level of agreement or disagreement on the various measures of management support. Table 4.1 presents the relevant results which show that on a scale of 1 to 5 (where 1= strongly disagree and strongly agree=5) the means and standard deviations were; M-banking has reduced the queues in the banking halls 4.36, M-banking is convenient to both customers and banks 4.35, The number of registered customers in M-banking has increased over the last five year 4.37, Introduction of mobile banking has reduced the operational cost of the banks 4.33 and m-banking provide a variety of services to customers 4.351. The figures on average indicate that there has been increase in the usage of mobile banking among the banks customers.

4.1.2 Electronic Funds Transfer

Table 4.2; Electronic Funds Transfer

Opinion Statement	Mean	Std. Deviation
EFT has enabled our bank link with other international banks globally	4.23	0.253
EFT offers secured method of financial transactions	4.21	0.198
EFT has increased the number of transaction we offer per day	4.25	0.508
Use of EFT has increased the number of Customers	4.24	0.284

The study sought to examine the participant's level of agreeing or disagreeing on the various measures of management support. Table 4.2 presents the related results indicating that on a scale of 1 to 5 (where 1= strongly disagree and strongly agree=5) the means and standard deviations were; EFT has enabled our bank link with other international banks globally 4.23, EFT offers secured method of financial transactions 4.21, EFT has increased the number of transaction we offer per day 4.25, Use of EFT has increased the number of Customers 4.24.

4.1.3 Financial Performance

Table 4.3 Financial Performance

Opinion Statement	Mean	Std. Deviation
There has been an increased of new accounts openings in last three years	4.42	0.914
The volume of the banks sales has increased since the bank adopted the various forms self-service technologies in last three years	4.40	0.850
The bank has experienced increased market share in last three years	4.44	0.811
The bank has experienced increase in return on assets in last three years	4.41	0.772
Increased in returns on assets due to electronic technology in last three years	4.45	0.799

The study sought to examine the participant's level of agreeing or disagreeing on the different measures of management support. Table 4.3 presents the relevant results which show that on a scale of 1 to 5 (where 1= strongly disagree and strongly agree=5) the means and standard deviations were; There has been an increased of new accounts openings 4.42, The volume of the banks sales has increased since the bank adopted the various forms self-service technologies 4.40, The bank has experienced increased market share 4.44, The bank has experienced increase in return on assets 4.41 and Increased in returns on assets due to electronic technology 4.45 the interpretation of these results was that there has been an increase in the financial performance in these commercial banks.

4.2 Correlation Analysis

Table 4.4 Correlation Analysis

		Operational performance	mobile banking	Electronics fund transfer
Operational performance	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	94		
mobile banking	Pearson Correlation	0.697**	1	
	Sig. (2-tailed)	.000		
Electronics fund transfer	Pearson Correlation	0.573**	0.394**	1
	Sig. (2-tailed)	.000	.000	
	N	94	94	94

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

From table 4.4 it can be observed that the correlation between the independent variables and the dependent variable was high and positive at 0.697 and 0.573 for mobile banking and Electronic Funds Transfer on performance respectively. The interpretation was that the level of multi-collinearity between the independent variable was not very high which meant that the influence of each variable in the regression model could be estimated with low Multi-collinearity problem.

4.3 Good-of- fit Statistics

4.3.1 Model summary

Table 4.5; Model summary

Model	R	R Square	Adjusted R Square
1	0.818	0.669	0.654

a. Predictors: (Constant), mobile banking, Electronic Funds Transfer,

b. Dependent Variable: Operational performance

The results in Table 4.5 indicated that the overall model was a good fit since the value of the adjusted R squared was found to be 0.654. This suggests that there is a strong relationship between mobile banking, Electronic Funds Transfer and operational performance. This indicates that all the variables considered cause a variation of 65.4 % on performance of commercial banks in Kenya.

4.3.2 Analysis of variance

Table 4.6 Analysis of variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.193	4	15.548	44.919	0.000
	Residual	30.807	89	.346		
	Total	93.000	93			

a. Dependent Variable: performance

b. Predictors: (Constant), mobile banking, Electronic Funds Transfer

The results in Table 4.6 indicated that the overall model was a good fit since the value of F-statistic was found to be 44.919 and it p-value was found to be 0.000 which is less than the critical value of 0.05.

4.4 Regression Coefficients

Table 4.7 Regression statistics

Model	Coefficients	Std. Error	t-statistic	probability-value
(Constant)	1.518	0.201	7.552	0.000
Mobile banking	0.438	0.072	6.126	0.000
Electronic Funds Transfer	0.136	0.022	6.182	0.000

The fitted regression model is

$$Y = 1.518 + 0.438\ X_1 + 0.136\ X_2 + \varepsilon$$

Standard Error	0.201	0.072	0.022
t-Statistics	7.552	6.126	6.182
p-value	0.000	0.000	0.000

Where; Y = Operations Performance, X1 = mobile banking, X2 = Electronic Funds Transfer, ε = Error Term,

4.4.1 Mobile banking

From table 4.4 the regression coefficient of Mobile banking was found to be 0.438. This value shows that holding other variables in the model constant, an increase in Mobile banking by one unit causes the bank performance to increase by 0.438 units. The value of the coefficient is also positive. The positive effect shows that there is a positive relationship between Mobile banking and bank performance.

The coefficient was positive statistically significant with a t-statistic value of 6.126. The variable was also found to be the first most influential variable on the bank performance in Kenya. This variable was the first most influential variable. This is due to large market penetration by mobile phone firms. These findings supports those of (Mariga,2003) who argue that, the major business drivers that have significantly contributed towards mobile banking evolution include customer experience and cost saving in banking operations. Through mobile banking technology, customers are able to enjoy various banking services from their mobile phones. These include simple bank statements, account balance enquiries, funds transfer, alerts on account limit and also payment of several utility bills. The interpretation was that Mobile banking support causes the bank performance to increase. The commercial banks in Kenya should consider the effect of Mobile banking to their performance.

4.4.2 Electronic Funds Transfer

From table 4.4 the regression coefficient of Electronic Funds Transfer was found to be 0.136. This value shows that holding other variables in the model constant, an increase in Electronic Funds Transfer by one unit causes the bank performance to increase by 0.136 units. The value of the coefficient is also positive. The positive effect shows that there is a positive relationship between Electronic Funds Transfer usage and bank performance.

The coefficient was positive statistically significant with a t-statistic value of 6.182. The variable was also found to be the least most influential variable on the bank performance in Kenya. This variable was the fouth most influential variable. These finding support those of Joseph (2006) who note that, electronic Funds Transfer (EFT) refers to a system which enables transfer of funds from one bank account to another. In this

system, there is no physical handling of paper money because the transaction is conducted electronically. Direct deposit is one of the most commonly used electronic funds transfer program. This program involves depositing of payroll directly to the bank account of the employee. This program enables employees to access their funds within a short time.

Electronic funds transfer has paved way for paperless transactions whereby paper bills, checks as well as stamps have become unnecessary. Several benefits have been realized through the continued use of electronic funds transfer. These include; low administrative fees, improved efficiency, enhanced security and easier storage of documents (Andam, 2003). A banking customer, for instance, can make an electronic fund transfer when she deposits a pay cheque. Similarly, a business owner can make an EFT when she withdraws a cash advance from an automatic teller machine to fund discretionary business expenses (Juma, 2013). The interpretation was that Electronic Funds Transfer causes the bank performance to increase. The commercial banks in Kenya should consider the effect of Electronic Funds Transfer to their performance.

4.5 Residuals Normality Test

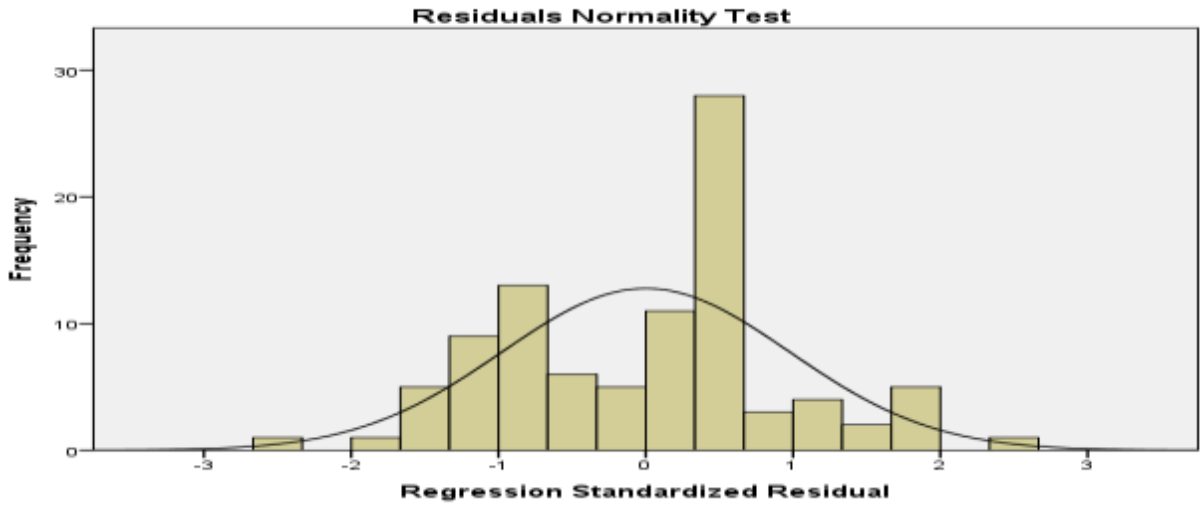

Figure 2: Regression residual normality Test

Figure 4.1, shows that residual normality test which a firms that the residuals are normally distributed. The interpretation is that the residuals have a mean close to a sum of zero which indicates that the model is well identified.

5.0 SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of the findings

5.1.1 Mobile banking

This variable was assessed using five constructs; M-banking has reduced the queues in the banking halls, M-banking is convenient to both customers and banks, The number of registered customers in M-banking has increased over the last five year, Introduction of mobile banking has reduced the operational cost of the banks and m-banking provide a variety of services to customers. These measurers of Mobile banking were found to be of good reliability of above 0.7 that allowed the researcher to proceed to the actual data collection,

qualitative and inferential analysis. All the measurers of Mobile banking were found to have effect on the commercial bank performance as shown by the various responses from the respondents that were presented using table. Mobile banking variable was found to have a positive effect on operational performance of commercial banks from the regression results. The research concluded that that increase in mobile banking causes the increase in commercial bank performance in Kenya.

5.1.2 Electronic funds transfer

This variable was assessed using five constructs; EFT has enabled our bank link with other international banks globally, EFT offers secured method of financial transactions, EFT has increased the number of transaction we offer per day, Use of EFT has increased the number of Customers. These measurers of Electronic funds transfer were found to be of good reliability that allowed the researcher to proceed to the actual data collection, qualitative and inferential analysis. All the measurers of Electronic funds transfer were found to have an effect on commercial banks performance as shown by the various responses from the respondents that were presented using tables. Electronic funds transfer variable was found to have a positive effect on operational performance of commercial banks from the regression results. Findings indicate that increase in electronic funds transfer causes the increase in commercial bank performance in Kenya.

5.2 Conclusion

5.2.1 Mobile banking

The research concluded that Mobile banking in Kenya has got a substantial influence on commercial banks operational performance. The findings that, Mobile banking had a positive effect on commercial bank operational performance was a worthy suggesting that a rise in mobile banking causes the operational performance of the commercial bank in Kenya. This meant that improving the usage of Mobile banking would have a positive effect on commercial bank operational performance.

5.2.2 Electronic funds transfer

The study concluded that electronic funds transfer in Kenya has a significant effect on commercial bank operational performance. The findings that, electronic funds transfer had a positive effect on commercial bank operational performance were good indications that increase in electronic funds transfer causes the operational performance of the commercial bank in Kenya. This meant that improving electronic funds transfer would have a positive effect on commercial bank operational performance.

5.3 Recommendation

5.3.1 Mobile banking

Given that Mobile banking was found to be a key determinant of commercial bank performance, the owners of the commercial bank in Kenya should ensure that Mobile banking is enhanced. Commercial bank in Kenya should therefore come up with strategies to train the management teams to improve their performance. Since the results showed that Mobile banking caused the tendency for the commercial bank to perform better, these commercial bank should come up with ways and strategies that help them to perform better. The government authorities should come up with proper ways of ensuring that the commercial bank have put in place regulations to ensure that those in the management team are qualified to manage the banks resources.

5.3.2 Electronic funds transfer

Given that this variable was found to be a key determinant of commercial bank performance, the owners of the commercial bank in Kenya should keep on improving Electronic funds transfer. Commercial bank in Kenya should therefore come up with more innovative ways of enhancing their Electronic funds transfer among banks' management teams and employees in general. Since the results showed that Electronic funds transfer causes the tendency for the commercial bank to perform better, these commercial bank should come up with ways and strategies that help them to perform better in terms Electronic funds transfer. The stakeholders should come up with ways and means of ensuring that the commercial banks have managers who are capable of cultivating better Electronic funds transfer.

5.4 Area for further research

The results indicated that the overall model was a good fit since the value of the adjusted R squared was found to be 0.654. This suggested that there was a strong relationship between mobile banking, Electronic Funds Transfer and operational performance. This indicates that all the variables considered cause a variation of 65.4 % on performance of commercial banks in Kenya. This study therefore recommends the improvement of this model by including more variables that are relevant in explaining the variation some of which have been mentioned above. This paper also recommends further research to include studies in other financial institutions like SACCOs.

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