
**MOBILE BANKING AND FINANCIAL PERFORMANCE OF SELECTED
COMMERCIAL BANKS IN KENYA**

¹Ong'era Sarah Bochari, ²Dr. Omagwa Job

^{1,2}Department of Accounting & Finance, School of Business, Kenyatta University

Accepted 26th February, 2021

Abstract

Despite the importance of financial inclusion in developing economies, financial inclusion is still experiencing a slow growth. Commercial banks have adopted mobile banking to increase customer deposits, opening of accounts and deposit and withdrawal transactions. Since mobile banking transactions cost far less than transactions at the branch teller, banks can make a profit handling even small money transfers and payments. However, despite the adoption of mobile banking in commercial banks, the performance of banks has been declining. The study sought to examine the role of mobile banking on performance of commercial banks. The study was conducted in the month of July, 2016 and focused on selected commercial banks, that is, Equity bank Kenya limited, Co-operative bank of Kenya limited, KCB bank Kenya Limited and Family bank Kenya limited. The researcher used descriptive research design. The study adopted purposive sampling whereby respondents targeted provided the information that was required. The study used both primary and secondary data. Primary data was collected using a questionnaire, while secondary data was collected from the audited financial statements for over a period of 5 years (2011-2015). Statistical Package for Social Sciences (SPSS) version 22) was used for purposes of analysis. Data was analyzed using descriptive statistics (Means, percentages and standard deviation) as well as regression analysis. The study found that mobile banking influences the financial performance of the four commercial banks in Kenya. The study also found that mobile banking is reliable to customers, enables the bank to reach the most unbanked people, is safe and affordable, it is efficient and increases the number of transactions in commercial banks. Therefore, commercial banks should adopt mobile banking as a way of increasing number of transactions, reducing cost of service delivery and hence improve on their profitability and revenue. The study recommends that policy makers should consider mobile banking in their formulation of policies because of the technological developments and the expected switch from physical branch networks to technologically supported banking services.

Key Words: *Mobile Banking, Financial Performance, Commercial Banks*

Introduction

Most finance theorists and practitioners tend to agree that a nation's banking sector plays an important role in the economic growth of a country. Principally, a solid and well-functioning financial sector is a powerful engine that fuels economic growth by assembling local savings, which in turn are converted into productive investments in local businesses through credit advancement and other forms of debt capital (Adewoye, 2013). Over the years, apart from interest rates, bank efficiency one of the factors affecting financial inclusion in Africa. The degree of efficiency significantly influences the level of financial inclusion in Sub-Saharan Africa (SSA). SSA banks are found to be generally cost-efficient, but nonperforming loans undermine efficiency, which suggests that improvement in the regulatory and credit environments should improve efficiency. However, efficiency could be improved by enhancing the credit environment through better functioning judicial and legal processes and the accessibility of information on borrowers. This should allow banks more effectively to play their financial intermediary role of transforming deposits into loans for investment.

Before the advent of mobile banking, the rate at which banks penetrated the unbanked market was very slow. However, the ease with which accounts are opened by mobile technology and the accessibility this has brought to bank accounts has hastened the rate of market penetration as opposed the slow rate at which the traditional banking approaches the market. World Bank (2017) postulated that mobile banking allows customers to receive short messages (SMS) through their phone, wireless application protocol (WAP), and Java enables phone support other banking activities using GPRS (General Packet Radio Service) such as direct payments confirmation and funds transfer.

Mobile payments technology is becoming increasingly significant, especially in the context of developing economies, where many low income households and microenterprises do not have ready access to financial services. Mobile payment facilitates financial inclusion, and offers potential for financial integration (Mutu, 2013). Over the last five years, mobile financial services have grown significantly. The rapid growth in the mobile money industry, in particular, has led to increased access for the less privileged and the disadvantaged population to affordable financial services not only within, but also across borders. Despite the opportunities this provides, the rapidly developing technology poses a challenge to regulators to support cross-border payments in a world that is also engaged in combating the rise in money laundering, terrorist financing, fraud and other financial crimes (Kapoor, 2012).

Statement of the problem

Despite the importance of financial inclusion in developing economies, financial inclusion is still experiencing a slow growth. For instance, 45% of the adult population in Kenya has no bank accounts, which is higher compared to 40% in South Africa (World Bank, 2017). In addition, 85% of the adult population in Kenya has no access to formal borrowing. However, various studies have shown that financial innovations like mobile banking have been found to influence customer deposits and opening of accounts in commercial banks. For instance, Ngii (2013) showed that the use of mobile banking in commercial banks significantly influences customer deposits and opening of accounts. Therefore mobile banking is one of the fitting ways for Africa to counter this challenge.

The profitability of Kenya's banking industry in the recent past has been a subject of public interest and debate. While the profit growth has also been helped by a steady growth in the customer base over the past four years from 4.7 million to 15.7 million, a report by the Central Bank of Kenya on 'Developments in the Kenyan Banking Sector for quarter ended March 31, 2012' indicates that this trend of profitability is equally largely attributed to financial inclusion by banks (KBA, 2012).

Central Bank of Kenya (CBK) recognizes the financial inclusion challenges which the country faces. These include the cost of financial services and the distance to bank branches in remote areas. Part of their approach to addressing these challenges is to promote innovation through mobile financial services (Central Bank of Kenya, 2010). Low-income people no longer need to use scarce time and financial resources to travel to distant bank branches. Since mobile banking transactions cost far less than transactions at the branch teller, banks can make a profit handling even small money transfers and payments (Meierrieks, 2014).

Various studies have been conducted on mobile banking and financial performance. For instance, 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. In addition, Munaye (2009) studied the application of mobile banking as a strategic response by equity bank Kenya limited and found that the concept of mobile banking as a strategic response effects on financial performance were not considered. Nonetheless, while Kigen (2010) study was limited to microfinance institutions, Munaye (2009) study only focused on Equity bank limited. This study therefore sought to investigate the effect of mobile banking on financial performance of commercial banks in Kenya.

The study tested the following null hypotheses:

H₀₁: Mobile banking does not have a significance effect on financial performance of selected commercial banks.

Theoretical Review

This theory was proposed by Gurley and Shaw (1955, 1960). Gurley (1955) articulated that financial intermediaries play an important role in credit markets because they reduce the cost of channeling funds between relatively uninformed depositors to uses that are information-intensive and difficult to evaluate, leading to a more efficient allocation of resources. Banks and other intermediaries are "special" where they provide credit to borrowers on terms which those borrowers would not otherwise be able to obtain (Mago, 2014). Because of the existence of economies of scale in loan markets, small firms in particular may have difficulties obtaining funding from non-bank sources and so are more reliant on bank lending than are other firms.

Despite obvious connections among political, legal, economic, and financial institutions and markets, long-term causal relationships often prove to be elusive and appear to depend upon the methodology chosen to study the relationship. But it is important to realize that efficient financial intermediation confers two important benefits: it raises the level of investment and savings, and it increases the efficiency in the allocation of financial funds in the economic

system (Kiprop, Kalio & Kiprop, 2015). In the current banking world, despite the globalization of financial services, driven by deregulation and information technology, and despite strong price competition, the financial services industry is not declining in importance but it is growing. Financial intermediation theory relates to this study as it holds banks as merely financial intermediaries, not different from other non-bank financial institutions: they gather deposits and lend these out. Banks create liquidity by borrowing short and lending long which means that banks borrow from depositors with short maturities and lend to borrowers at longer maturities (Kathuo, Rotich & Anyango, 2015). By using mobile banking, commercial banks are able to collect money through deposits and lend money to individuals through mobile platform.

Empirical Review

Several studies have been conducted on the effects of mobile banking and the performance of commercial banks. Kamau (2014) 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.

Ching et al. (2011) studied the factors affecting Malaysian mobile banking adoption from the point of an empirical analysis. This study aimed at extending the Technology Acceptance Model (TAM) to investigate mobile banking acceptance in Malaysia. More specifically, the objective of this study was to examine the relationships between constructs of perceived usefulness, perceived ease of use, social norms, perceived risks, perceived innovativeness, and perceived relative advantages towards behavioural intention in adopting mobile banking. The findings of this study revealed that perceived usefulness, perceived ease of use, relative advantages, perceived risks and personal innovativeness were the factors affecting the behavioral intention of mobile users to adopt mobile banking services in Malaysia. Meanwhile, the social norms were the only factor found to be insignificant in this study.

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 a way to bring more users into contact with formal financial systems, m-banking/mpayments 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.

Tiwari, Buse and Herstatt (2006) studied mobile banking as business strategy: impact of mobile technologies on customer behaviour and its implications for banks. The study sought to examine the opportunities for banks to generate revenues by offering value-added, innovative mobile financial services while retaining and even extending their base of technology-savvy customers

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 a product of a social process, embedded in social practices such as SMEs Practices which leads to some economic benefits.

Al-Jabri (2012) studied mobile banking adoption 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. More specifically, the objective of this research was to examine the potential facilitators and inhibitors of mobile banking adoption. The study was guided by six hypotheses including: relative advantage having a positive effect on mobile banking adoption; Complexity having a negative effect on mobile banking adoption; Compatibility having a positive effect on mobile banking adoption; Observability having a positive effect on mobile banking adoption; Trialability having a positive effect on mobile banking adoption; and perceived risk having a negative effect on mobile banking adoption. The findings suggest that banks, in Saudi Arabia, should offer mobile banking services that are compatible with various current user requirements, past experiences, lifestyle and beliefs in order to fulfill customer expectations. With better mobile banking support and provision of variety of services, the more useful customers perceive mobile banking to be and to increase their level of adoption. Hence, bank's attention should focus on understanding customer behavior and designing reliable mobile banking systems that will meet their needs and provide useful and quality services.

In addition, banks should focus on communicating information that emphasizes the relative advantage and usefulness of mobile banking compared to other banking channels like physical presence to the bank or using ATM machines. Banks must seek to reduce risk perceived by their customers by offering specific guarantees protecting them and taking their complaints seriously and urgently. According to Koivu (2002) uptake of mobile phone in Kenya has been unprecedented. Mobile banking in Kenya affects performance of organization, behavior and decision making of the entire economy. The trend of continued reliance on mobile devices to execute monetary transaction is steadily gaining momentum. Mobile banking is one innovation which has progressively rendered itself in pervasive ways of cutting across numerous sectors of economy and industry.

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. Kigen (2010) 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. Kingoo (2011) 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

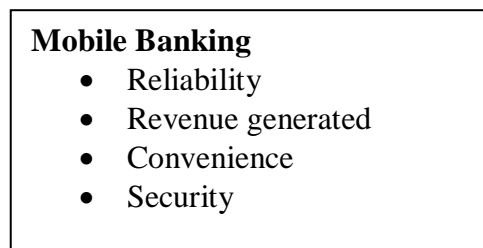
mobile banking as a strategic response where its effects on financial performance were not considered.

Zimmerman (2010) discovered that mobile banking in developing world was an object of skepticism among financial insiders while proponents argued that cell phones could revolutionize personal finance in poorer country, regulators warned of money laundering and most bankers worried that low customer balances wouldn't be worth transaction costs. From the above discussion of empirical literature, this study hypothesizes that mobile banking supports the delivery of mobile banking services in an economy.

Conceptual Framework

A conceptual framework is described as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation. The dependent variable of the study is financial performance. This was measured by net income, loan book, liquidity ratio and capital strength. The independent variable was mobile banking. Under Mobile Banking, reliability, security convenience and income generated were key elements of study.

Independent variables



Dependent Variable

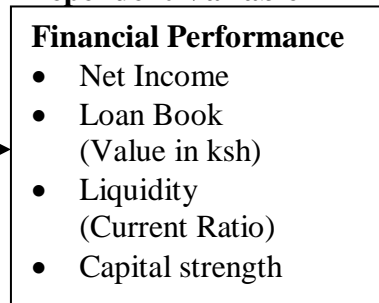


Figure 1: Conceptual Framework

Research Methodology

This study used a descriptive research design. Descriptive research design was selected as it involves observing and describing the subject or variables without influencing them in any way. The target population of this study was 4 commercial banks in Kenya, who have embraced the concept of financial inclusion to a great extent. These are Kenya Commercial Bank, Equity Bank Limited, Co-operative Bank of Kenya and Family Bank. The study targeted 12 respondents from each of the 4 selected banks. These included agency banking managers, mobile banking managers, operations managers, finance managers and strategic planning managers who are actively involved in firm strategy especially product development. The distribution is shown in the Table 1.

Table 1: Target population

Bank	Agency Manager	Mobile Banking Manager	Operation Manager	Strategic Planning Manager	Finance Manager	Total
Kenya Commercial Bank	9	7	4	4	5	29
Equity Bank	6	10	6	5	5	32
Co-operative Bank	12	9	5	3	6	35
FAMILY Bank	7	6	4	3	4	24
Total	34	32	19	15	20	120

The study adopted purposive sampling. The researcher purposively picked 3 respondents from each of the 5 categories of target respondents. Since the study focused on 4 commercial banks, the sample size was 60. The selected commercial banks are Kenya commercial bank, Equity bank limited, Co-operative bank of Kenya limited and Family bank limited.

The study used secondary data and primary data. Secondary data on various performance trends of the selected commercial banks mainly profits, liability values and the assets books, was collected over a period of time (2011-2015). Data collection sheet was used to collect secondary data. Primary data was collected by use of semi-structured questionnaires containing closed, likert-type and open-ended questions. The questionnaires were used because they help in the collection of large volumes of data within a short period of time and were easy to administer. The questionnaire was pre-tested to ensure it was not faulty and that it could be understood by the participants. The questionnaire was pre-tested for validity proof by issuing to two randomly selected respondents from 3 commercial banks. This study adopted Cronbach's which is a measure used to assess the reliability, or internal consistency, of a set of scale or test items.

Data was edited and coded, then presented in tables and figures. Statistical Package for Social Sciences (SPSS) version 22) was used for purposes of analysis. Data was analyzed using descriptive statistics (means, percentages and standard deviations) and multiple regression analysis. The regression model is captured below.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where: Y = Financial Performance; β_0 =constant term; β_1 = Beta coefficients; X_1 = Mobile Banking; and ε = error term

Research Findings and Discussions

The sample size of this study was 60 managers who comprised of agency managers, mobile banking managers, operation managers, strategic planning managers and finance managers in four commercial banks in Kenya, which include Kenya Commercial Bank, Equity Bank, Co-operative Bank of Kenya and Family Bank of Kenya. Out of a sample size of 6 managers, 55 responses were obtained, which gives a response rate of 91.66%. According to Kothari (2009), a 50% response rate is adequate for analysis, 60% is good and 70% is very good. This response rate indicates a reasonable representation of the sample and of the entire population.

Mobile Banking

The objective of the study was to establish the effect of mobile banking on financial performance of selected commercial Banks in Kenya.

Utilization of Mobile Phone for Settlement of Financial Transactions

The respondents were asked to indicate how often they use mobile phone for settlement of financial transactions. According to the findings, 63.6% of the respondents reported that they use mobile phone for settlement of financial transactions very often, 27.3% indicated often, 7.3% indicated less often and 1.8% indicated they were not using mobile phone for settlement of financial transactions at all. This shows that most of the managers in the four commercial banks use mobile phone for settlement of financial transactions very often.

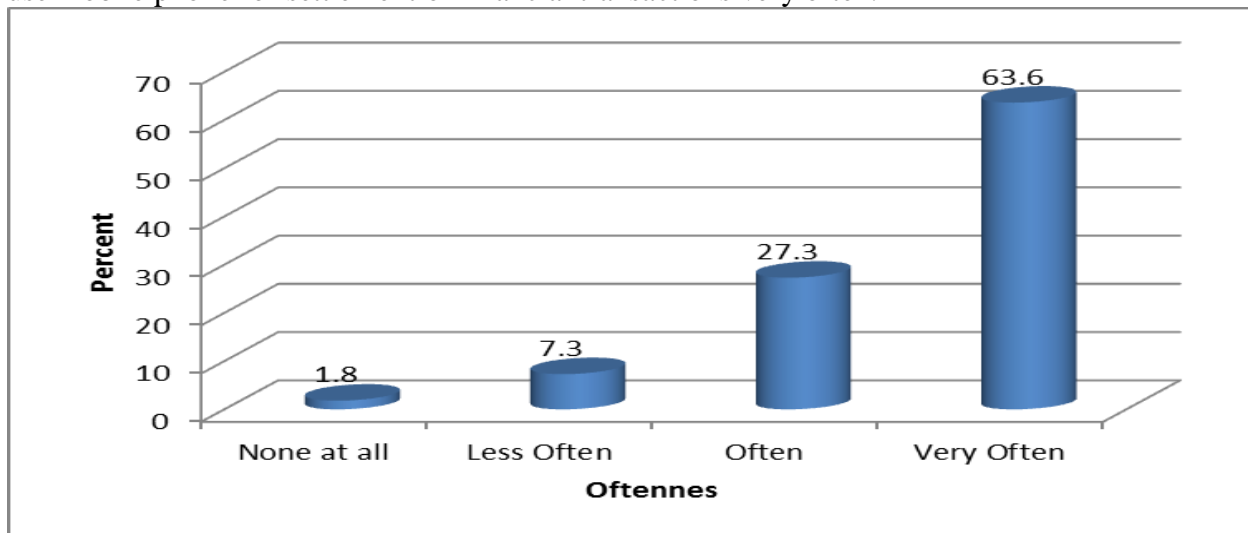


Figure 2: Utilization of Mobile Phone for Settlement of Financial Transactions

Mobile Banking Services Accessed By Bank Customers

The respondents were further asked to indicate mobile banking services that are accessed by bank customers. From the findings, 96.4 of the respondents indicated that account enquiry is accessed by bank customers and the same percent indicated that funds transfer service is accessed by bank customers. In addition, 94.5% of the respondents indicated that recharge phones service is accessed by bank customers in their mobile phones, the same percent indicated that bill payment services and Deposits can be accessed by customers. Also, 96.4% of the respondents indicated that the loan applications services is accessed by bank customers from their mobile phones, the same percent indicated that loan repayment was accessible and 92.7% indicated that withdrawal of money was accessible. This implies that mobile money services accessible to customers include account enquiry, funds transfer, recharge phones, bill payments, deposits, loan application, loan repayment and withdraw money. These findings agree with Kablan (2010) findings that mobile money services accessible to customers include account enquiry, funds transfer, recharge phones, bill payments, deposits, loan application, loan repayment and withdraw money.

Table 2: Mobile Banking Services Accessed By Bank Customers

	Frequency		Percent	
	Yes	No	Yes	No
Account enquiry	53	2	96.4	3.6
Funds transfer	53	2	96.4	3.6
Recharge phones	52	3	94.5	5.5
Bill payments	52	3	94.5	5.5
Deposits	52	3	94.5	5.5
Loan application	53	2	96.4	3.6
Loan repayment	52	3	94.5	5.5
Withdraw money	51	4	92.7	7.3

Effect of Mobile Banking on Financial Performance of the Banks

The respondents were requested to indicate whether mobile banking affected financial performance of their banks. According to the findings, 89.1% of the respondents indicated that mobile banking affected financial performance of their banks while 10.9% indicated that mobile banking does not affect financial performance of their banks. This implies that mobile banking affects the financial performance of the four commercial banks. These findings agree with Hao and Hunter (2009) findings that mobile banking presented a great opportunity for the provision of financial services to the unbanked.

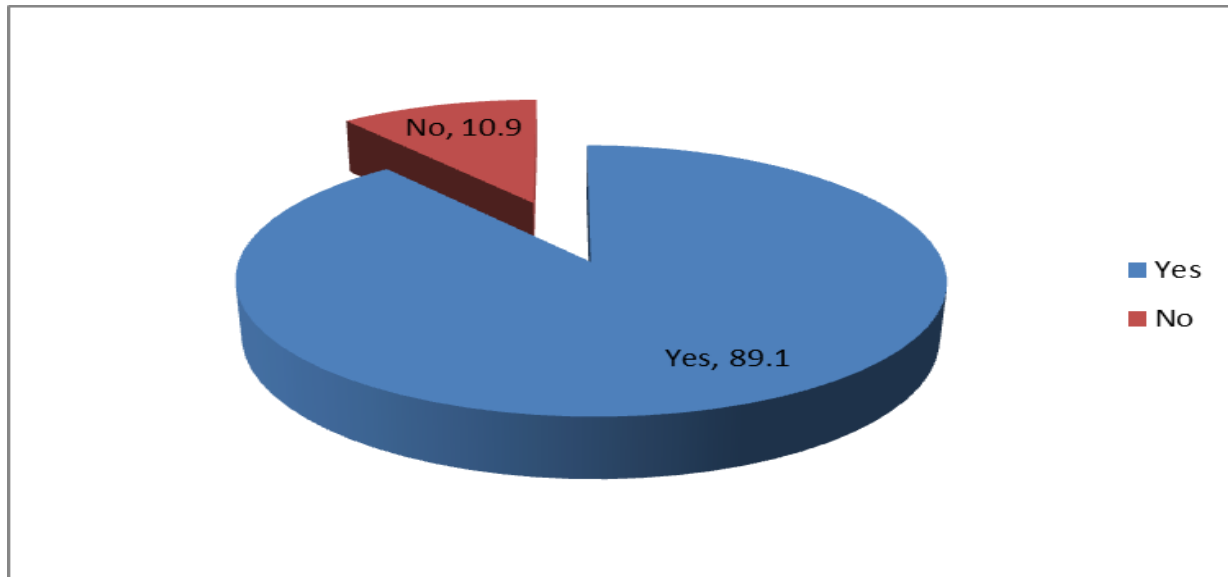


Figure 3: Effect of Mobile Banking on Financial Performance of the Banks

Enabling real-time 2-way data transmission and banking services

The respondents were asked to indicate whether mobile banking applications enable offering of real-time 2-way data transmission, banking services, among other services. According to the findings, 94.5% of the respondents indicated that mobile banking applications enable offering of real-time 2-way data transmission, banking services, among other services while 5.5% disagreed.

From these findings we can deduce that mobile banking applications enable offering of real-time 2-way data transmission, banking services, among other services.

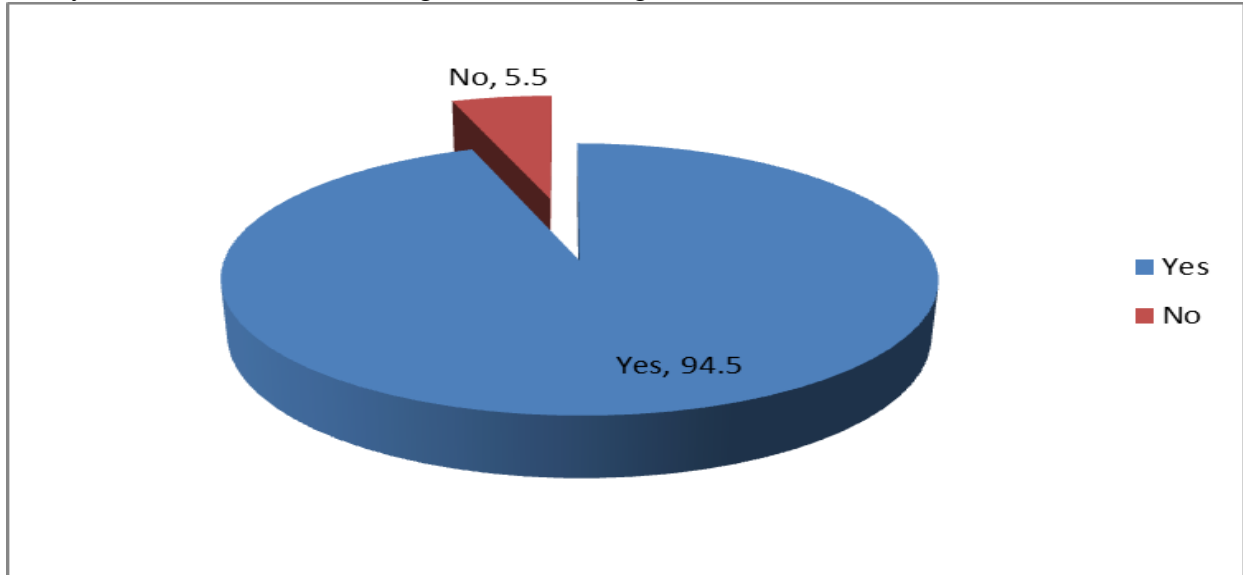


Figure 4: Enabling real-time 2-way data transmission and banking services

Aspects Mobile Banking

The respondents were also asked to indicate their level of agreement with various statements on mobile banking in their banks. Where 1 represents strongly disagree 2 represents disagree, 3 represents neutral, 4 represents agree and 5 represents strongly agree. From the findings, the study found that mobile banking has increased number of bank transactions which influences the financial performance of commercial banks. The study also found that mobile financial services offer efficiency and are time and cost saving which improves the profitability of commercial banks. Further, mobile banking is reliable to customers, which increase utilization and hence increased number of transactions and the profitability of the banks. The results also indicated that mobile banking is safe and affordable, which increases utilization and hence profitability. The results further indicate that mobile banking has enabled the bank reach the most unbanked people, thus increasing its customer base and hence increase in profitability. These findings agree with Kigen (2010) findings that 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.

Table 3: Aspects Mobile Banking

	Mean	Std. Deviation
Mobile banking is reliable to customers	4.018	1.100
Mobile banking has enabled the bank reach the most unbanked people	4.000	.982
Mobile financial services offer efficiency and are time and cost saving	4.218	.892
Mobile banking is safe and affordable	4.090	.782
Mobile banking has increased number of bank transactions.	4.236	1.137

Financial Performance

Trend of Profits for the Last Five Years

Figure 5 shows the trend of the average profit of the four commercial banks for the last five years. From the findings the average profit for the four commercial banks was Ksh. 8218 million in the year 2011. This figure decreased to Ksh. 8165 million in the year 2012 and then attained an upward trend. In the year 2013, the average profit for the four commercial banks was Ksh. 12111 million, which increased to Ksh. 14402 million and Ksh. 62789 million. This shows that the profitability of the four commercial banks has generally been increasing for the last five years.

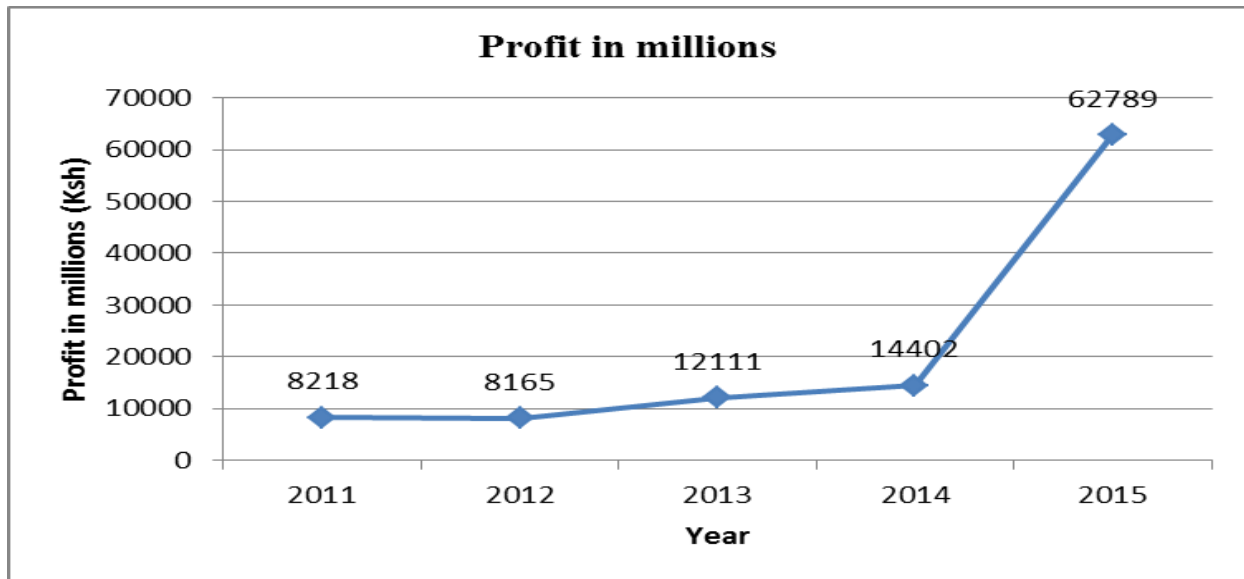


Figure 5: Trend of Profits

Trend of Loans for the Last Five Years

Figure 6 shows the trend of loans and advances in the four commercial banks in the last five years. The average loans and advances in the four commercial banks in the yrera 2011 was Ksh. 121046 million, which increased to Ksh. 140237 million in the year 2012, Ksh. 150511 million in the year 2013, Ksh. 167856 million in the year 2014 and Ksh. 824364 million in the year 2015. This shows that the loans and advance in ther four commercial banks have been increasing in the last five years.

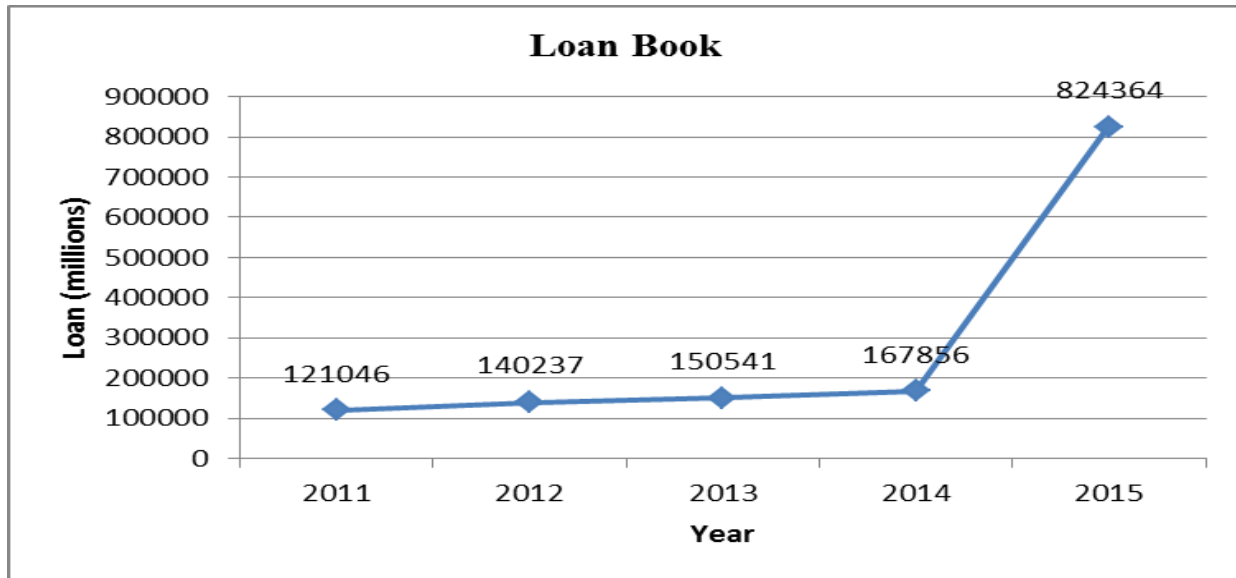


Figure 6: Trend of Loans

Trend of Capital for the Last Five Years

Figure 7 shows that trend of the average core capital in the four commercial banks for the last five years. In the year 2011, the average core capital in the four commercial banks was Ksh. 24504 million, which increased to Ksh. 25266 million in 2012, Ksh. 30855 million in 2013, Ksh. 36546 million in 2014 and Ksh. 158374 million in the year 2015. This shows that the average core capital in the four commercial banks has been increasing over the years.

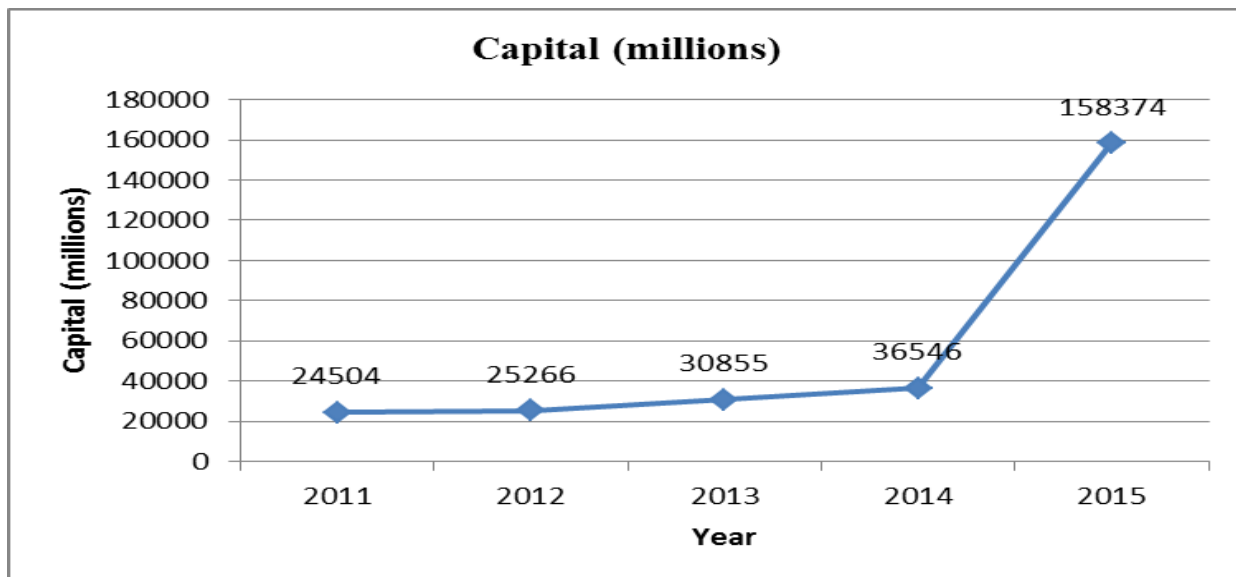


Figure 7: Trend of Capital for the Last Five Years

Regression Analysis

The study used multiple regression analysis to determine the influence of the independent variables on the dependent variable. The regression model is captured below.

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where: Y was Financial Performance, β_0 was constant term, β_1 was Beta coefficients, X_1 was Mobile Banking, and ε was an error term.

R represents the correlation between the independent variable (mobile banking) and the dependent variable, financial performance. Since the R was close to one, we can deduce that there is a positive correlation between the mobile banking and the financial performance of commercial banks. The R-squared shows the variation in the dependent variable that can be explained by the independent variables. The R-squared in this study was 0.3745, which shows that 37.45% of the financial performance of the four commercial banks can be explained by mobile banking. This also shows that 62.55% of the dependent variable can be explained by other factors not considered in this study.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.612	0.3745	0.352	0.21307	1.581

The analysis of variance is used to test whether the model is a good fit for the data. From the findings, the F-calculated (146.969) is greater than the F-critical (2.79). In addition, the p-value (0.000) was less than the significance level (0.05). This implies that the model is a good fit in predicting the influence of mobile banking, agency banking and automated teller machines on the financial performance of the selected four commercial banks.

Table 5: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.44	1	51.440	275.542	0.000
	Residual	9.521	51	0.187		
	Total	60.961	54			

$$Y = 0.271 + 0.476X_1$$

The findings show that holding the independent variable (mobile banking) constant, financial performance will be having an index of 0.271. In addition, the findings show that mobile banking positively influences the financial performance of the four commercial banks. This is shown by a regression coefficient of 0.476. This shows that a unit increase in mobile banking would lead to a 0.476 increase in the financial performance of the four commercial banks.

The findings also show that the relationship between mobile banking and financial performance of the four commercial banks was significant. This is shown by a p-value of 0.000, which is less than the significance level (0.05). Therefore, we can reject the null hypothesis that “mobile banking does not have a significance effect on financial performance of selected commercial banks”. This implies that mobile banking influences the financial performance of the four commercial banks in Kenya. These findings agree with Gichungu and Oloko (2015) findings that mobile banking had a significant influence on financial performance in commercial banks.

Table 6: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.271	.076		3.578	.001
Mobile Banking	.476	.042	.551	11.301	.000

Discussion of the Findings

The study established that mobile banking positively and significantly influences the financial performance of commercial banks in Kenya. These findings concur with Demirgüç-Kunt, Feyen & Levine (2013) argument that utilization of mobile banking influences the financial performance of commercial banks. The study also established that mobile money services accessible to customers include account enquiry, funds transfer, recharge phones, bill payments, deposits, loan application, loan repayment and withdraw money. Mobile banking applications enable offering of real-time 2-way data transmission and banking services. In addition, they have increased number of bank transactions in commercial banks.

In addition, the study found that mobile financial services offer efficiency and are time and cost saving. These findings concur with Bonface and Ambrose (2015) findings that besides increasing efficiency mobile banking had reduced transaction costs considerably. The study established that mobile banking is reliable to customers. In addition, the study established that mobile banking is safe and affordable. Further, the study established that mobile banking has enabled the bank reach the most unbanked people. These findings agree with Binyanya (2014) findings that mobile phone presented a great opportunity for the provision of financial services to the unbanked in Sub Saharan Africa (SSA) countries.

Conclusions and Recommendations

The study concludes that mobile banking influences the financial performance of the four commercial banks in Kenya. The study also concludes that mobile banking is reliable to customers, enables the bank to reach the most unbanked people, is safe and affordable, it is efficient and increases the number of transactions in commercial banks. Therefore, commercial banks should adopt mobile banking as a way of increasing number of transactions, reducing cost of service delivery and hence improve on their profitability and revenue.

To the customers, the findings of this study imply that they can access efficient, affordable and accessible financial services via mobile banking. Therefore, customers do not need to line up in the banking halls to get financial services, which is time consuming, inconveniencing and costly.

The study recommends that policy makers should consider mobile banking in their formulation of policies because of the technological developments and the expected switch from physical branch networks to technologically supported banking services.

Areas for Further Research

The study found that the mobile banking could only explain 37.45% of the financial performance of the four commercial banks in Kenya. This study therefore suggests that further studies should be conducted to investigate on other factors that influence the financial performance of commercial banks in Kenya. The study also found that some managers in the banks were not using mobile banking. This study hence suggests further studies on the factors affecting the utilization of mobile banking among staff in commercial banks in Kenya.

References

- Adewoye, J. O. (2013). Impact of Mobile Banking on Service Delivery in the Nigerian Commercial Banks. *International Review of Management and Business Research*, 2(2), 34-45.
- Binyanya, D. O. (2014). *Effect of mobile money payments on financial deepening in Kenya*. Retrieved from <http://hdl.handle.net/11295/75904>
- Bonface, R. M, & Ambrose, J. (2015). Mobile Banking and Financial Performance of Commercial Banks in Kenya. *International Journal of Finance and Current Business Studies*, 4(12)16-31.
- Demirgüç-Kunt, A., Feyen, E., & Levine, R. (2013). The evolving importance of banks and securities markets. *The World Bank Economic Review*, 27(3), 476-490.
- Gichungu, Z.N. & Oloko, M.A. (2015). Relationship between Bank Innovations and Financial Performance of Commercial Banks in Kenya. *International Journal of Education and Research*, 3(5), 443-456.
- Hao, J. & Hunter, W.C. (2009). A Test of the Impact of Financial Innovation on Economic Growth. *Managerial Finance*, 23(11), 64 – 78.
- Kablan, S. (2010). *Banking Efficiency and Financial Development in Sub-Saharan Africa*. Retrieved from <https://www.imf.org/external/pubs/ft/wp/2010/wp10136.pdf>
- Kamau, M. G. (2014). *Effects of mobile money on financial deepening in Kenya*. Retrieved from <http://hdl.handle.net/11295/74676>
- Kathuo S., Rotich, G., Anyango, W. (2015). Effect of Mobile Banking On the Financial Performance of Banking Institutions in Kenya. *Strategic Journals*, 2(98), 1440 – 1457.
- Kiprop, M.J., Kalio, A. & Kiprop, S. (2015). Effect of Financial Development on Economic Growth in Kenya: Evidence from Time Series Analysis. *European Journal of Business and Social Sciences*, 3(11), 62 – 78.

- Mago, S. (2014). The Impact of Mobile Banking on Financial Inclusion in Zimbabwe: A Case for Masvingo Province. *Mediterranean Journal of Social Sciences, 5(9)*, 221-245.
- Meierrieks, D. (2014). Financial Development and Innovation: Is There Evidence of a Schumpeterian Finance-Innovation Nexus. *Annals of Economics and Finance, 15(2)*, 343–363.
- Mutu, R.W. (2013). *Effects of Mobile Banking On the Financial Performance of Commercial Banks in Kenya*. Retrieved from <http://chss.uonbi.ac.ke/>
- Ngii, M. M. (2013). *The Effect of Mobile Phone Technology Innovations on Financial Deepening Within the Banking Industry in Kenya*. Retrieved from <http://erepository.uonbi.ac.ke>
- World Bank (2017). *Financial Inclusion Data / Global Findex*. Retrieved from <http://datatopics.worldbank.org/>