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FINANCIAL INNOVATION ON PERFORMANCE OF COMMERCIAL BANKS IN GARISSA COUNTY, KENYA

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ABSTRACT

This study sought to establish the effect of bank innovations on the financial performance of commercial banks in Garissa County, Kenya. The study specifically sought to establish the effect of agency banking and mobile banking of the commercial banks in Garissa County, Kenya. The study was anchored on task technology fit model and technology acceptance theory. A descriptive research design was used. The target population was all commercial banks regulated by the Central Bank in Garissa County, Kenya. Employees in the human resource, finance, marketing, research and development and information technology departments who totaled to 215 were included in the study. A sample was developed via Yamane Formula through simple random sample to get a sample size of 170 respondents spread across all the commercial banks in Garissa County, Kenya. The study used primary data collected using semi-structured questionnaires. The data collected was analyzed using inferential and descriptive statistics with the aid of SPSS software. At 5% level of significance, the study established that agency banking (β=0.175, p=0.001<0.05) had a positive and significant effect on financial performance of commercial banks. Mobile phone banking (β=0.161, p=0.001<0.05) had a positive and significant effect on financial performance of commercial banks. The study recommended that the branch managers of all commercial banks operating in Garissa County should increase investment inn agency banking to positively influence financial performance of their institutions. The senior management team in the head office of commercial banks operating in Garissa County should increase investment in mobile phone banking platforms so as to positively influence financial performance of their organizations.

Key Words: *Agency Banking, Mobile Banking, Innovation and Financial Performance*

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INTRODUCTION

Innovativeness is an important strategy that can be used by firms to grow new markets, to expand their market share and gain a competitive advantage. Getting from their motivation from the competitiveness in the dynamic global markets, many organizations are embracing innovation as an important way to stay relevant in a competitive market. The dynamic changing technologies and the increased competition keep on eroding the value of company's products and services.

Innovation is characterized by the development of new products or new processes used to make new products by organizations. The new processes in this case lead to increased performance for the organization (Lawrence, 2010). Innovation when it comes to the financial banking industry is the creation and popularizing of new technologies, financial instruments, markets and institutions which make it easier to access trading, information and ways of payment (Solans, 2003).

Innovation in the financial industry is made up of a variety of changes in the system which results to improved performance, structural changes, diversification, sophistication and internationalization of the financial system. The results are the financialization of the economy where the ration between the financial assets and total assets rises. Based on this background, this research seeks to deduce the impact of innovations on the financial performance of commercial banks in Kenya.

The definition of financial innovation can be said to be the creation and popularization of new technologies, financial instruments, markets and institutions. Product, institution and process innovations are part of this process. Innovation has been looked into detail by many scholars since it plays a vital role when it comes to stability of the financial industry and the economic growth of different nations (Lerner and Tufano, 2011).

As noted by the European Central Bank (ECB 2013), financial innovation is a byproduct of organization innovation which enables the reduction of costs or risks and for the improvement of service delivery for banks and other financial institutions. Similarly, Frame and White (2012) and Tufano (2003) agree with this sentiment defining innovation as the use of some concepts like the overcoming of agency challenges, completing markets that are incomplete, reducing transaction, overcoming information asymmetries, reduction of marketing and research costs, positive response to changes in taxations and regulations, being prepared for technological and risk shocks and embracing globalization. Financial innovation is characterized by the use of two or more of the listed factors.

In the past decade the number of channels for delivery of financial services has increased. Traditional methods are no longer popular and instead new innovative methods such as e-banking, innovative Automated Teller Machine (ATM) methods and mobile banking are being used to deliver financial services. As noted by Sweeny and Morrison (2004), innovation in this industry has revolutionized retail banking and allowed for ease of access of financial services. Today, banks are partnering with software, hardware and telecommunication firms to make it easier for customers to transfer funds, gain access to their bank accounts, pay bills and purchase goods and services within the comfort of their homes and without the need to use cheques or cash (Frei, 2012).

Innovation is a crucial factor for any business that wants to be sustainable and commercial banks are no exception. The ability of the financial companies to positively contribute to the economy depends in part on the quality and quantity of the products they offer to their customers. ICT has played a significant role in changing the access and assessment of financial services provided to people who live in the sub-Saharan African region (Abor, 2004). In Kenya, innovativeness and the use of technology has led to

the development of new ways for delivery of financial services such as online banking, ATMs, agency banking and mobile banking. With time the innovations in the Kenyan commercial n banking industry have grown thus the current research seeks to determine the impact innovation has on the financial performance of commercial banks in Garissa County, Kenya.

Financial performance is the extent to which objectives of the firm and in this case financial objectives will be met or have been met (Yahaya & Lamidi, 2015). The company's financial performance subject to how effectively a firm uses its assets from its principal role of conducting business and its subsequent generation of revenues. Financial performance can also refer to the general well-being of a firm as far as finance is concerned over a certain period of time. Financial performance focuses more items that affect the financial statements or reports of a firm directly. The financial performance analysis can deal with items such as dividend growth, sales turnover, capital employed, asset base among others about the firm (Omondi & Muturi, 2013).

The financial performance of different financial institutions can be measured by use of different ratios, measuring the performance against the provided budget, benchmarking among other methods (Avkiran, 2011).The financial statements of commercial banks in Kenya contain a variety of financial ratios designed to give an indication of the bank`s performance. Some of the ratios commonly used to measure performance of banks include Capital adequacy ratios, Asset Quality ratio, Earnings and Liquidity ratios. The most common financial ratios used to measure performance is the profitability ratios. Profitability ratios measure the total effectiveness of a bank's management in generating profits on interest income, assets, and owner's investment. These ratios are; which include; ROA, ROE, profit margin and Asset Utilization. Return on Equity measures how well the bank has performed in all categories i.e. measures the amount of net income after tax for each shilling of equity capital.

In line with banking Act of Kenya Cap 488 a bank is an organization that provides or proposes to provide banking services in the country. Further the definition of the banking business is provided as acceptance of public money from members that can be repaid on demand, after the expiry of a given period or after a notice is given; the acceptance of cash on current account from members of the public and the acceptance or payment of cheques and or the use of money held on current and deposit account of in another account or in another way reducing the risk and offering accountability for the account owner.

In Garrisa County, there are eight banking institutions. The commercial banks are grouped into three groups using a weighted composite index made up of deposits, assets, capital, number of loan and deposit accounts. A large bank is said to have a weighted composite index of 5 percent or higher, a medium bank weighted composite index is between 1 to 5 percent while the small banks weighted composite index is less than 1 percent.

In the past two decades there have been notable and significant changes in the Kenyan banking sector (1990-2010). Misati, Njoroge, Kamau and Ouma (2010) note that the number of financial services has risen, there has been an improvement in the efficiency in the financial systems and financial firms and activities in the industry has also increased (CBK, 2010). The number of branches of commercial banks in the country has increased from 530 branches in 1999 to 1,102 branches by June 2011. The number of ATMs has also risen from 262 to 2,021; the number of deposit accounts has increased from 1 million with 16,673 employees to 12.8 million with 28,846 employees in the same duration (CBK, 2011).

Statement of the problem

Due to the dynamic business environment, the banking industry has been under immense pressure to be innovative. With increased competitiveness and

regulation, many modern banks are relying on innovativeness for sustainable profitability and growth. However, coming up with the right product that can meet the needs of the customers depends on picking the right product mix strategy and using the proper development process. It is true that innovation is important in today's dynamic market but it still has a few challenges. One of the common challenges is that customers might nut adapt as expected to the new innovation. Woldie *et al.* (2008) notes that an organization can come up with a great innovation but customers can reject the innovation. Financial innovation does help to improve the performance of banks but the effect of innovation on the performance of banks is not always well understood. The banking industry is seen as having minimal customer satisfying services and branches whose services are nit well delivered which has led to discouraging financial results (Parasuman*et al.,* 2001). In the Kenyan banking sector customers have to deal with insecurity, long queues, transaction errors and network failures.

The increased developments in ICT have made it easier and more efficient for banks to provide some banking services. However advancement in technology comes with its challenges. Aladwani (2011) and Hwang *et al.* (2012) explain that security issues and customer relations problems are some of the key challenges facing modern banking firms. Even in Kenya this is a major challenge as banks are more focused on setting up the e-banking systems ignoring the need for security and technical innovativeness needed to ensure the systems are sustainable.

There have been a number of studies that have looked at innovativeness in the financial industries. However, these studies focus is not only on the banking sector but on multiple sectors, building societies, security and the banking sectors (Alam, 2002, Alam and Perry 2002; Kelly and Storey 2000). The results and conclusions made in these studies are generalized across sectors and might bit be the best for the banking sector as a single sector. Commercial banking although ids often regarded as representing the financial industry it has unique traits. It has embraced technologies such as e-banking and uses advanced financial theories and modern software. Additionally, the deregulation of banks in most of the developing nations has led to a fast changing and continually complex business environment for the banks (de Brentani, 2010). Due to the dynamic business environment, banks have had no option but to be innovative which has led to notable innovations and technology based marketing strategies. These factors make the banking industry a unique study when it comes to the effect of innovation on financial performance. It is against this background that this research seeks to determine the impact of innovations on financial performance of commercial banks in Garissa County, Kenya.

Objectives of the study

The key objective of this research was to determine the effects of innovation on financial performance of commercial banks in Garissa County, Kenya. The specific objectives were:-

- To examine the effects of agency banking on financial performance of commercial banks in Garissa County, Kenya
- To establish the effects of mobile banking on financial performance of commercial banks in Garissa County, Kenya

LITERATURE REVIEW

Theoretical Foundation

Task technology fit Theory (TTF)

The study is based on the Task technology fit theory that was developed by Dishaw and Strong, (1999). According to the theory ICT is more likely to n b e embraced by its users if it positively affects the users performance and if the capabilities of the technology are in line with the responsibilities or the tasks that

the user is expected to complete. Good hue and Thompson (1995) pointe out a few factors that can be used to deduce if the technology fits the task at hand. The factors include system reliability, ease of training or use, quality, relationship with the users, compatibility and authorization and production timeliness. This theory comes in handy when analyzing of different contexts where information technology is being used including in the e-commerce systems and when e-commerce systems are used together with other techniques that lead to outcomes related to information systems.

This model purports that for information technology to be successful it must fit into the task at hand and success is pegged on the improved individual and group performance (Zigurs & Buckland, 2010). There was a task-technology fit theory that was specifically developed for group support systems. This theory was developed and tested by Zigurs, Buckland, Connolly and Wilson, (1999) and came up with the requirements that needed to be met for developed systems to fit into group tasks. The theory of task-technology fit has been especially successful when it comes to mobile based information systems. However, there are still unanswered questions regarding the use of this theory in mobile information systems. The theory looks at the significance of task technology. Additionally, the theory gives more explicit link between technology and the construct at hand which provides a better theoretical basis for coming up with issues that affect the use of technology and its performance. This model emphasis is that there needs to be a match between information technology and the business tasks if information technology use is to be a success (Junglas & Watson, 2006).

The current model is useful to this research since it is important to consider the changes and requirements in the business tasks and the technology to be used, it is also important to deduce if the theory can be used in mobile technology use contexts and if nit if there are any adjustments that can be made to ensure it is used successfully in the said context. This theory looks at how mobile banking technology can be a contributor to Kenyan commercial banks improved performance and competitiveness (Kanyuira, 2012).

Technology Acceptance Theory (TAT)

Davis, Bagozzi, and Warshaw (1989) came up with the TAT model in a bid to explain the user's acceptance and intention in the use of technology. TAT looks at a technology perceived ease of use and usefulness. The perceived usefulness of a technology is the belief by the user that the technology will improve his or her on job performance. The perceived ease of use looks at how easily the user can learn to use the new system or the technology (Gefen *et al.,* 2003). According to the model, if the new technology ease of use is achieved it is likely to positively lead to perceived usefulness. There are external variables like the environment that can affect the perceived ease of use and usefulness. This theory is often used when researching on information technologies and its main emphasis is on the two perceptive factors. Liu and Arnett (2000) looked at the important factors affecting the developing of a website based on this model. Gefen et al. (2003) used both TAT and rust and came up with a more evolved model that could be used to explain the online behaviors of customers. Pavlou (2003) suggests the use of the e-commerce acceptance model on online customers that uses survey and experiment techniques.

Horst, Kuttschreuter and Guttering (2007) did a follow up study that examined if it was prudent for the Netherlands government to use e-government to serve its people like in other nations. The study considered TAT factors, faith, perceived risk and public experiences. The findings of the study showed that the public trusted the government and resonated with information technology. The empirical study further revealed that TAT is not only useful for examination of information technology but it also

useful ion examining the acceptance of intention behavior related to information technology and further explains the behavior issues faced by online users of technology (Liu and Arnett, 2000; Gefen *et al*., 2003).

Empirical Review

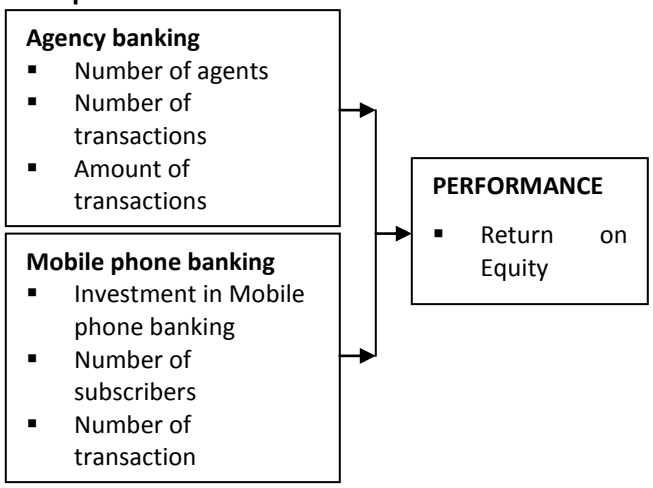
Dias *et al.* (2010) notes that agents need constant on-site supervision and training if they are to provide their customers with quality services, they are to follow the laid down business processes, they are to be liquid and well branded. The banks in charge of the agents will have to come to a decision of the management of the agencies are to be done in source or outsourced to third parties. It is therefore important that banks that provide agency services constantly monitor their agents if they are to meet the goals laid out and remain competitive in a dynamic market. Providers should come up with a schedule of regular site visits to the agents premises to ensure that agents provide the banking services in line with the laid down rules, maintain the right branding and have the required e-float and cash requirements (Nofie, 2011).

According to Clara (2010), agency banking does more that ease access to banking services, it also benefits the agency banking service provider as the agent can get profits due to the different transaction he or she offers. Transactions such as bill payments and person to person transactions often attract a commission for the agent. The proximity of the agents location close to the customers often sees the customer prefer to use the agent to do these transactions rather than visiting the bank branch.

Mobile banking makes use of mobile phones where customers are able to receive messages on their phones on any transactions done on their accounts and any new banks products and services (Gikenye, 2011). Customers can also use mobile banking to stop cheques, order cheque books, ask for account statements, change the pin of their ATM, make funds transfers and make cash transfers from their mobile phone money accounts to their bank accounts and vice versa. As noted by Goswami & Raghavendran (2009), this form of banking is revolutionizing and allowing for innovations in the banking sector. It is a great idea to say the least that a financial institution can fit in the customer's pockets through the use of a mobile phone.

Aker and Mbiti (2010) observed that a strong correlation exists between the coverage of mobile phones, price of banking services, the banking services offered and the performance of the financial institution. In markets where there is minimal competition, financial companies are able to provide better services at higher costs. Rayhan, Sohel, Islam, and Mahjabin (2012) dis a research in Bangladesh on mobile banking. The results showed that mobile banking allowed the provision of affordable banking services through virtual banking platforms to the un-banked population. The use of mobile phones allowed banks to offer an array of financial services that were affordable through e-banking.

Conceptual Framework



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

Source: (Author, 2019)

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RESEARCH METHODOLOGY

A descriptive survey research design was employed. This design according to Lavrakas (2008) is a systematic technique that collects data from a sample using research tools such as questionnaires, interviews and observations. The target population for this research included 215 drawn from 8 commercial banks in Garissa Town. The unit of analysis was the departments in all commercial banks which comprises of human resources, finance, marketing, research and development and Information technology. The Ysmaner formula was used to achieve the sample for this study. That is n= N/1+N $(e)^2$. **N=215/1+ 215(0.05^2) =215/1.25=170**

To choose the sample for this research simple random sampling technique was employed.

Primary data was collected using questionnaires. The questionnaires collected were checked for completeness, edited, coded and data input into Statistical package for social sciences (SPSS version 22).

FINDINGS AND DISCUSSION

The study gave out 170 questionnaires out of which a total of 124 were filled out and returned, this response rate was adequate represented 73% of the total questionnaires administered.

Effect of agency banking on financial performance of commercial banks

Table 1: Agency Banking

	Mean	Std. Dev
Agent banking increases number of bank transactions	3.73	0.953
Agent banking has minimized fraud cases	3.57	0.869
Agent banking has led to banks geographical expansion	3.44	1.072
Agent banking has led to decongestion of branches	4.28	0.853
Agent banking has minimized banks operational costs	3.79	0.993
Agent banking has helped to reach the poor marginalized unbanked	3.86	0.937
Agent banking has led to increase customer base	3.58	0.983
Agent banking has led to low transactional cost	3.47	0.972
Agent banking has led to closer proximity by customer	3.96	0.792

From the results most of the participants were in agreement that agent banking had led to decongestion of branches with a mean of 4.28 and standard deviation of 0.853. Agent banking had led to closer proximity by customer with a mean of 3.96 and standard deviation of 0.792. The study established that agent banking had helped to reach the poor marginalized unbanked with a mean of 3.86 and standard deviation of 0.937. Most of the respondents agreed that agent banking had minimized banks operational costs with a mean of 3.79 and standard deviation of 0.993. The study established that agent banking increased number of bank transactions with a mean of 3.73 and standard deviation 0.953. This is supported by Malhotra and Singh (2009) who states that many withdrawals can decrease the amount of cash and increase the e-float for the agent. In each of the cases the clients are likely to get discouraged if the services they need cannot be provided due to lack of hard cash or e-float.

On whether agent banking had led to increase customer base, the value of mean was 3.58 and standard deviation of 0.983 while on whether agent banking had minimized fraud cases, the mean was 3.57 with standard deviation of 0.869. The values of means are slightly low showing that respondents only

slightly agreed on these statements. There is need for regular on site visits to the agents to ensure that the agents are maintaining the right branding, following the right business processes and maintaining the right liquid requirements (Nofie, 2011). Similarly, Dias *et al.* (2010) notes that agents are unlikely to provide quality service unless on site supervision and in-store training is provided to ensure there is the right liquid, the right businesses processes are followed and branding is maintained.

As to whether agent banking had led to low transactional cost, the value of mean was 3.47 with standard deviation of 0.972 while on whether agent banking had led to banks geographical expansion, the value of mean was 3.44 and standard deviation of 1.072. The values of means on these statements are lower than 3.5, which show that respondents were neutral on them. This is supported by the findings of KBA (2012) who established that financial inclusion comprised providing banking services to the unbanked in the society and also the increase of the use of the financial service among the population in Kenya.

Effects of mobile banking on financial performance of commercial banks

Financial Transactions

The findings on financial transactions were shown in Table 2

Table 2: Financial Transactions

	Mean	Std Dev
Withdrawing money from ones bank account	4.54	0.371
Depositing money in one's bank account	4.62	0.287
Transfer of cash from one bank account to another	3.91	0.748
Payment of bills such as electricity and water bills from one's bank account	3.61	0.582
Mobile phone top up (from one's bank account)	3.63	0.815

Source; Research Data (2018)

From Table 2, cash deposit (into one's bank account) with a mean of 4.62 and standard deviation of 0.287 and cash withdrawal (from one's bank account) with mean of 4.54 and standard deviation of 0.371 were very frequently used by customers in carrying out financial transactions. On the other hand, transfer money (from one bank account to another) with a mean of 3.91 and standard deviation of 0.748, mobile phone top up (from one's bank account) with a mean of 3.63 and standard deviation of 0.815 and pay bills such as water and electricity bills from one's bank account with a mean of 3.61 and standard deviation of 0.582. This is supported by Clara (2010) who states that agency banking brings financial services closer to the customer and agency banking also benefits the agent because of the additional revenue got by agents due to payment of bills and personalized transactions.

Information Services

The study sought to determine the frequency which information services were employed by customers of the studied banks. The findings were shown in Table 3.

Table 3: Informational Services

	Mean	Std Dev
Alert on any activity on one's account and the passing of sett thresholds	4.81	0.837
Check Remote Deposit	3.91	0.846
Check account balance (mini statements)	3.71	0.873
Status confirmation and execution of an order	3.39	1.026

Source; Research Data (2018)

From the findings, alert on account activity or passing of set thresholds with a mean of 4.81 and standard deviation of 90.837 was very frequently used information service by customers. On the other hand, checking remote deposit with a mean of 3.91 and standard deviation of 0.846 and checking account balance (mini statements) with a mean of 3.71 and standard deviation of 0.873 were frequently used by customers. However, checking status confirmation and execution of an order with a mean of 3.39 and standard deviation of 1.026 was rarely used by customers of the studied banks. This is supported by Zimmerman (2010) who notes that mobile banking in the developing nations is subject of skepticism especially by the insiders.

Credit and Loans

Table 4: Credit and Loans

	Mean	Std Dev
Access on loan statements	3.73	0.963
Access to card statements	3.58	0.879
Mutual funds/equity statements	3.47	1.028
Cheque book and card request	2.19	0.827
Insurance policy management	3.75	0.839
SMS on product information, conditions and offers	3.96	0.958
Real time stock quotes	3.38	1.027
Location-based services	3.28	0.968

Source; Research Data (2018)

In view of SMS on product information, conditions and offers, the value of mean was 3.96 with standard deviation 0.958, insurance policy management had a mean of 3.75 and standard deviation of 0.839, access on loan statements had a mean of 3.73 with standard deviation of 0.938 and access to card statements had a mean of 3.58 with standard deviation of 0.879. The values of means on these statements are above 3.5, showing that customers in the studied banks frequently used these services. This is supported by Aduda and Kingoo (2012) who found out that there existed a favorable significant relationship between e-banking and bank performance in respect to return on assets.

However, real time stock quotes with a mean of 3.38 and standard deviation of 1.027 and location-based services with a mean of 3.28 and standard deviation of 0.968 were rarely used by customers as supported by low values of means. Cheque book and card request with a mean of 2.19 and standard deviation of 0.827 was very rarely used by customers of the studied banks. Rayhan, Sohel, Islam, and Mahjabin (2012) Mobile phones improve the access to financial services offered by banks and also reduce the

transaction costs for the banks and customers. This real time banking method is available anywhere, anytime, at any location. It is also cost effective, convenient, secure and encourages savings as customers find it easy to deposit money which increases the deposits for banks.

Table 5: Extent of Agreement on Mobile Banking

	Mean	Std Dev
Mobile banking has favorably increased the commission based revenue from fees	3.92	0.896
Mobile banking has positively increased income from interest	3.64	0.837
Mobile banking has led to expansion of income sources for the bank	4.01	0.628
Income obtained from mobile banking margins are high which has favorably affected the profitability of the bank every year	3.68	0.853
Mobile banking maintenance costs are minimal leading to favorable profits over the economic life of mobile banking	3.79	0.865
Mobile banking investment is encouraged by profits the bank will make	3.48	1.028

Source; Research Data (2018)

On whether mobile banking had led to expansion of income sources for the bank, the value of mean was 4.01 with standard deviation of 0.628. This shows that respondents agreed on the statement. In view of whether mobile banking has favorably increased the commission based revenue from fees, the value of mean was 3.92 and standard deviation of 0.896. This implied that respondents agreed on the statement. As to whether mobile banking maintenance costs are minimal leasing to favorable profits over the economic life of mobile banking, the value of mean was 3.79 and standard deviation of 0.865. This implies that respondents agreed on the statement. This is supported by Goswami and Raghavendran (2009) who established that a favorable strong correlation exists between types of services provided, the coverage of the mobile phone network, the price of services offered and the performance of the bank.

In respect to whether income obtained from mobile banking margins are high which has favorably affected the profitability of the bank every year, the value of mean was 3.68 with standard deviation of 0.853 while on whether mobile banking has positively increased income from interest, the value of mean was 3.64 with standard deviation of 0.837. Respondents however were not sure whether mobile banking investment is encouraged by profits the bank will make with a mean of 3.48 and standard deviation of 1.028. This is supported by Kigen (2010) who found out that mobile banking reduced transactional costs of microfinance institutions and found out that mobile banking had a significant influence on performance.

Financial Performance

Table 6: Financial Performance

	Mean	Std Dev
Agency banking has led to better Return on Equity for the Bank	3.86	0.837
Mobile phone banking has led to better Return on Equity for the Bank	3.69	0.962
Online banking has led to better Return on Equity for the Bank	3.59	0.937
Credit card banking has led to better Return on Equity for the Bank	3.47	0.851

Source; Research Data (2018)

From the findings, agency banking had led to better return on equity for the Bank with mean of 3.86 and standard deviation of 0.837. Mobile phone banking had led to better return on equity for the bank with a mean of 3.69 and standard deviation of 0.962. This agreed with Nofie (2011) who states that providers should come up with a schedule of regular site visits to the agents premises to ensure that agents provide the banking services in line with the laid down rules, maintain the right branding and have the required e-float and cash requirements. The study established that online banking had led to better return on equity for the bank with a mean of 3.59 and standard deviation of 0.937. However, respondents were neutral on whether credit card banking had led to better return on equity for the bank with a mean of 3.47 and standard deviation of 0.851.

Regression Results

Regression analysis was carried out to determine how financial innovation influenced financial performance of commercial banks. The findings of the Model Summary, an Analysis of Variance (ANOVA) and the beta coefficients are shown in sections below. The findings of coefficient of correlation and coefficient of adjusted determination were as shown in Table 7.

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.905[a]	.820	.817	2.17886

a) Predictors: (Constant), Agency Banking, Mobile Phone Banking, Online Banking, Credit Cards

Source; Research Data (2018)

From the Model Summary in Table 7, the coefficient of determination R square is 0.820. This showed that 82.0% change in financial performance of the studied commercial banks is explained by their financial innovation. Therefore, there are other factors (apart from financial innovation) that influences financial performance of commercial banks which future studied should focus on.

An ANOVA was carried out at 5% significant level. The comparisons of $F_{Calculated}$ and $F_{Critical}$ are as shown in Table 8.

Table 8: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	6123.01	2	3061.506	274.752	.000[b]
Residual	1348.28	121	11.143		
Total	**7471.29**	**123**			

a) Dependent Variable: Financial Performance

b) Predictors: (Constant), Agency Banking, Mobile Phone Banking,

From Table 8, the value of F calculated is 274.752 while F critical (from F table at d.f 2, 121) equals to 3.071. Therefore, F calculated is more than F critical. This finding results into an inference that the overall regression model was significant and therefore fit.

Table 9 presents the findings on p-values and the beta coefficients showing significance of each of the variables of the study. The interpretation of the p-values was done at 5% level of significance.

Table 9: Coefficients of Regression

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	6.326	1.174		5.389	.000
Agency Banking	.175	.050	.224	3.518	.001
Mobile Phone Banking	.161	.046	.176	3.505	.001

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a. Dependent Variable: Financial Performance

$Y = 6.326 + 0.175 X_1 + 0.161 X_2 + 0.338 X_3 + 0.208 X_4$

Where **Y=** Financial Performance**;** **X_1** = Agency Banking**;** **X_2 =** Mobile Phone Banking

The study established that when all variables are held constant, financial performance of commercial banks would be at 6.326. At 5% level of significance, the study established that agency banking (β=0.175, p=0.001<0.05) had a favorable and significant impact on financial performance of commercial banks. According to Clara (2010), agency banking does more that ease access to banking services, it also benefits the agency banking service provider as the agent can get profits due to the different transaction he or she offers.

Mobile phone banking (β=0.161, p=0.001<0.05) had a positive and significant effect on financial performance of commercial banks. According to Goswami and Raghavendran (2009), mobile banking is the focal growth point for the banking sector. According to Kigen (2010), mobile banking reduced costs, although the reduced expenditure could not be felt by the microfinance institutions since the customers who used this platform were still minimal.

CONCLUSION

The study concludes that agency banking had a positive and significant effect on financial performance of commercial banks. Agency banking had led to decongestion of branches. Agent banking had led to closer proximity by customer. Agency banking had helped to reach the poor marginalized unbanked. Agency banking had minimized banks operational costs. Agency banking increased number of bank transactions. Agency banking has enabled the bank reduce the number of tellers whose emoluments were high putting into consideration the pension, salaries, insurance covers and other staff related costs.

The study concludes that mobile phone banking had a positive and significant influence on financial performance of commercial banks. Mobile phone banking helped customers to make cash withdrawal (from one's bank account) and cash deposit (into one's bank account) very frequently. Mobile phone banking helped customers to receive alerts on account activities or passing of set thresholds. Mobile phone banking allowed customers to receive SMS on product information, conditions and offers frequently. Mobile banking had expanded the income sources for the bank. Mobile banking had favorably affected commission based revenues from fees.

RECOMMENDATIONS

The study recommended that the branch managers of all commercial banks operating in Garissa County should increase investment inn agency banking to positively influence financial performance of their institutions.

The study also recommended that the senior management team in the head office of commercial banks operating in Garissa County should increase investment in mobile phone banking platforms so as to positively influence financial performance of their organizations.

Suggestions for Further Studies

The current study focused on how financial innovation influenced financial performance of commercial banks. The study specifically examined how agency banking, mobile banking, online banking and credit cards influenced financial performance. From regression results, the value of the coefficient of determination R square was 82.0%, showing that there are other factors explaining 18% change in financial performance of commercial banks apart from financial innovation. Thus, future studies should be done to bring out these other factors affecting financial performance.

REFERENCES

Adesina, A. A., & Ayo, C. K. (2010). An empirical investigation of the level of user's acceptance of embanking in Nigeria. *Journal of Online banking and Commerce, 15(1)*.

Aker, J. C., & Mbiti, I. M. (2010). Mobile phones and economic development in Africa *Journal of Economic Perspectives, 24(3),207–232, Summer 2010*

Berger A.N., Molyneux P. and Wilson J. O. S. (eds), The Oxford Handbook of banking.

Central Bank of Kenya (2010b), *Guideline on Agent Banking - CBK/PG/15*, Nairobi http://www.centralbank.go.ke/downloads/ bsd/GUIDELINE%20ON%20AGENT% 20BANKINGCBK% 20PG%2015.pdf.

Central Bank of Kenya (2013), Annual Reports, Central Bank of Kenya, Nairobi.

Daneshvar, P., & Ramesh, H. N. (2012). Determination of IT strategies to improve bank's performance- Indian Public banks experience. *Asian Journal of Research in Business Economics and Management, 2(*2)

Dias D *et al*. (2010), "Protecting Branchless Banking Consumers: Policy Objectives; Wadsworth, Canada.

Dishaw, M. T., & Strong, D. M. (1999). Extending the technology acceptance model with task technology fit constructs. Information & Management, 36(1), 9-21. Working Paper. Rutgers University.

Durkin, M. (2004), "In search of the internet – banking customer, exploring the use of decision styles", *The International Journal of Bank Marketing*, Vol. 22 No. 7, pp. 484-523.

Flier, Bert, Van den Bosch, Frans, Volberda, Henk W., Carnevale, Carlo A., Tomkin, Neil, Melin, Leif, Quelin, Bertrand and Kiger, Mark P. (2010) "The Changing Landscape of the European Financial Services Sector", *Long Range Planning,* 34, No. 2/ pp.179-207.

Frame W. S., & White L.J. (2012) Technological change, financial innovation and diffusion in banking, in

Frei, F. X. (2012). 'Frontiers of online financial services', in Cronin, M.J. (ed.). *Banking and finance on the Internet*, Van Nostrand Reinhold Press, New York.

Furst, K., Lang, W.W. and Nolle, D. E. (2002), "Internet banking", *Journal of Financial Services Research*, Vol. 22 Nos 1/2, pp. 95-117.

Gikenye, W. (2011). the diffusion of mobile phones for business and information management in kenya. *Business source complete*, 511-520.

Good, H., & Thompson. (2007). Can theory knowledge and application lead to competitive advantage. *Marketing intelligence and planning*, 232-240 MIS Quarterly, 19(2) 213-236.

Goswami, D., & Raghavendran, S. (2009). Mobile-banking: can elephants and hippos tango? *Journal of Business Strategy, 30*(1), 14-20.

Heikkinen, P., & Korhonen, K. (2006). Technology driven efficiencies in financial markets. *Bank of Finland Expository Studies No A:110*.2006, Bank of Finland, Helsinki.

Johne, A. &Storey, C. (2014), "New Service Development: A Review of the Literature and Annotated Bibliography", European *Journal of Marketing,* 32, No.3/4, pp.184-251.

Loonam, M., & O'Loughlin, D. (2008). An observation analysis of e-service quality in in online banking. *Journal of Financial Services Marketing, 13(2)*, 164-178.

Mabrouk, A., & Mamoghli, C. (2010). Dynamic of financial innovation and performance of banking firms: Context of an emerging banking industry. *International Research Journal of Finance and Economics, 5,* 2010.

Omondi, O. M. & Muturi, W. (2013). Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. *Research Journal of Finance and Accounting*, 4 (15), 99 – 104.

Parasuraman, A., Colby, C.L. (2001), *Techno-Ready Marketing: How and Why Your Customers Adopt Technology,* Free Press, New York, NY.

Perry, M. R. (2012). Dealing with mobility: Understanding access anytime, anywhere. *ACM Transactions on Computer-Human Interaction*, 8(4), 323-347.

Pooja, M., & Balwinder, S. (2009). The impact of online banking on bank performance and risk: The Indian experience. *Eurasian Journal of Business and Economics, 2 (4),* 43-62.

Porteous, D. (2006). *The Enabling Environment for Mobile Banking in Africa*, London: DFID. http://www.bankablefrontier.com/assets/ee.mobil.ban king.report.v3.1.pdf.

Ram, N. A., Kagan, A., & Lingam, S. R. (2008). Online banking applications and community bank performance. *The International Journal of Bank Marketing, 26(6)*, 418-439.

Rayhan, J. S., Sohel, S. M., Islam, A., & Mahjabin, S. (2012). Problems and prospects of mobile banking in Bangladesh. *Journal of Arts, Science & Commerce*. E-ISSN 2229-4686/ISSN 2231-4172

Solans, E. D. (2003). Financial innovation and monetary policy. Excerpts of speech delivered at the *38th SEACEN Governors Conference and 22nd Meeting of the SEACEN Board of Governors on "Structural Change and Growth Prospects in Asia –Challenges to Central Banking", Manila.*

Yin, R., & Zhengzheng, L. (2010). How commercial banks implement financial innovations- A case from retail operation of the Bank of China. http://www.myacme.org/ACMEProceedings09/p22.pdf.

Zigurs, I., Buckland, B. K., Connolly, J.R., & Wilson, E.V. (2010). A test of task technology fit theory for group support systems. *Database for Advances in Information Systems*, 30(34), 34-50.