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ABSTRACT

Information Technology is the ability of a company to integrate information sharing mechanisms among the departments, employees and customers smoothly with little or no barriers and through use of the modern technology. The main aim of this paper was to establish the influence of information technology on the performance of agency banking among commercial banks in Kenya. The study also assessed the moderating effect of firm size on the relationship between information technology and performance of agency banking. The study was informed by the Technology Acceptance Theory. A descriptive survey research design was adopted. The target population was the commercial banks with agency banking in Kenya. A total of 303 respondents were drawn from branch managers, ICT managers, operations managers, human resource managers and customer relations managers. A structured questionnaire was used and the obtained data analysed using descriptive and inferential statistics. The findings revealed that information technology had a significant influence in agency banking performance in commercial banks in Kenya. Those banks that ensured appropriate ICT skills, availability of ICT infrastructure and upholding training on ICT recorded more deposits through agency banking. The moderator (firm size) was found to have a moderating effect on the relationship between information technology and the performance of agency banking in commercial banks. The study concluded that information technology was essential in steering the performance of agency banking.

Keywords: *Strategic Drivers, Information Technology, Agency Banking, Firm size, Commercial Banks, Firm Performance*

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INTRODUCTION

Commercial banks are known to be among the most vulnerable organizations in the business world due to the numerous innovations, technological changes and high regulations involved. Despite the banking sector being crucial in economic performance through enhancement of savings and issuance of loans, they face a lot of dynamics most of which threaten their performance (Choudhry & Masek, 2013). Therefore, similar or even more, commercial banks require very well-meant strategies to foster performance. One of the major dimensions that modern day banks are taking for competitiveness is agency banking. This has seen many banks even in the developing World expand their operations thus enhancing their stead-fast performance (Nader, 2011; and Finkl & Ploder, 2009).

Drucker (2011) alludes that for organizations to succeed in today's environment they have to focus on strategies that are customer focused rather than only production focused strategies. According to Zachmann (2012) and David, Patrick, Phillip and Kent (2010), strategic drivers enable assembly of production customs built from standard component and unique to each customers need. Ansoff (2015) argues that business strategy aims at increasing the share capital of the business as a result of some measures put in place to enhance the productivity of the business. One of the main business strategies in the 21st century is adoption of Information Technology.

Information technology has a huge impact on an organization's performance as it enables the organization to improve and manage its resources effectively (Pearce & Robinson, 2010). In order to have successful results and maximize the use of information systems, organizations need to align their strategies with the information systems they purchase (Rasaouli, 2011; Emeka, 2015). The ability of the project team to communicate and share vital information has a significant effect on completion time of projects (Carter & Greer, 2013). This is because monitoring of human resource and non-human resources is enhanced through information communication technology. This also promotes speedy information feedback to the stakeholders from project management team.

According to Lausa (2011) and Bon and Mustafa (2013), a firm can maximize the value from its information technology (IT) investments by aligning them with business strategies because IT improves scope economies and coordination. However it is important to note that the disparity between the firm requirements and what the new technology offers will result to poor performance. The information systems are used to generate data which is used to assess the complementary interaction between technology use, work processes as measured by best practices, and performance (Gagnon, 2011; Bichanga & Masika, 2014). From various studies, there are significant beneficial correlations between information technology use like intranet and performance and slightly more significant beneficial correlations between best practice use and performance. Interaction effects of the combined use of information technologies and best practices against performance are assessed, finding several positive correlations, although limited data availability prevents robust statistical evaluation (Whitney & Audrey, 2010; Prahalad & Ramaswamy, 2009).

Agency banking mainly comprises of banking agents located elsewhere away from the bank. The bank through its management will monitor its agents to ensure they have proper consolidation systems to implement agency banking operation as well as embrace effective communication systems between the bank and its clients. This enables the banks to be in full control of the agents and enhances the management of the banking agents so as to keep them up to task in line with the bank's standard and requirements. Information technology will enhance communication and consolidation of the agents activities by the bank. As indicated by Neil and Leishman (2010), information technology has made agency banking as a banking strategy to evolve into a key contributor to the success of commercial banks through which sharing of information and

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handling concerns of the banking agents by the bank officials has become effective and easier.

Statement of the Problem

Information technology has been widely recognized as a key driver to organizational performance. In the context of commercial banks, information technology enhances communication and efficiency of operations through which commercial banks have been able to enhance their effectiveness and performance. However, when it comes to agency banking, there is little documented evidence on how commercial banks have embraced technology towards enhancing the performance of this mode of banking. Moreover, commercial banks continue to record mixed performance results even with the introduction of agency banking. While some banks have seen a surge in the value and number of transactions through agency banking, others are yet to record any notable change in performance attributed to agency banking. With scare literature on the use of technology in steering the effectiveness of agency banking, and the continued disparities in performance of banks regardless of agency banking adoption, it makes it imperative for this paper to assess the influence of information technology as a strategic driver on the performance of agency banking in commercial banks in Kenya.

Objectives of the Study

- To establish the influence of information technology on performance of agency banking in commercial banks in Kenya;
- To analyze the moderating effect of firm size on the relationship between information technology and performance of agency banking in commercial banks in Kenya.

Research Hypotheses

- **H_{o1}:** Information technology has no significant influence on performance of agency banking in commercial banks in Kenya;
- **H_{o2}:** Firm size has no significant moderating effect on the relationship between information technology and performance of agency banking in commercial banks in Kenya.

LITERATURE REVIEW

Theoretical Review

Technology acceptance theory was first developed by Davis (1989) with an aim to bring out the factors affecting adoption and acceptance of computer applications among individuals in an organization. According to Oye, Iahad and Ab.Rahim (2012), behavior of the user in information technology is very essential for productivity and attainment of better results as far as technology is concerned. Many organizations across the globe are concerned with introducing new technologies in the systems but fail to mind about the acceptance of the employees and the effects the technology has to bring on the employees (Suvarna & Godavari, 2012).

Banking industry is one of the industries that need to use technology so as to enhance their existence as well as performance. To make the technology adopted in banking, it is very essential for the banks' management to ensure that the users in this case who are the employees, accept the changes and are ready to work as per the requirements by the introduced technological changes (Martins, Tiago and Popovic, 2014). TAM therefore becomes very essential in this case such that it will help the managers to determine the factors that may foil the employees from accepting the changes and thus handle the cases accordingly. Based on the facts reviewed above, the technology acceptance theory would be useful in the study to instigate the objective of the study which is to establish the influence of information technology on performance of agency banking in commercial banks in Kenya.

Influence of Information Technology on Performance

Commercial banks have been expanding over the years as a result of enhancement in technology. Hawajreh and Hawajreh (2012) conducted a study on the impacts of information technology on knowledge management and organizational development. Hawajreh and Hawajreh (2012) found that information technology enhanced information sharing within the organization and thus managing the knowledge among the employees was more manageable and easier. As cited by Hawajreh and Hawajreh (2012), Albers (2012) established that technical capabilities among the employees were very essential as far as organizational development and knowledge sharing were concerned. Technology enhances the increase in knowledge within an organization due to increased research and information flow (Banes, 2011).

A study by Jean, Sinkovics and Kim (2016) on Information technology and organizational performance within international business to business relationships found that information technology was the key aspect that enhanced performance of organization since it was the cheapest method of marketing and enlarging the market. The study found that IT capabilities contribute directly to improved organizational process such as coordination, transaction specific investment, absorptive capacity and monitoring (Chatterjee, Segars & Watson, 2016). Commercial banks are the key demanders of a lot of investments in information technology in the current business market. As new modern technology is being brought about, banks should be keen to improve their standards and investments in technology as well. As Kasim (2010) contends, banking sector ought to apply technology in order to remain competitive and enhance performance.

Firm Size and Performance of Agency Banking

Ezeoha (2008) contends that the size of a firm plays a crucial role in determining the kind of relationship the firm enjoys within and outside its operating environment. He opined that usually, the larger a firm is, the greater the influence it has on its stakeholders (Saleh, Kaissi, Seamaan & Natafgi, 2013). Again, the growing influences of conglomerates and multinational corporations in today's global economy and in local economies where they operate are indicative of what role size plays within the corporate environment. Chang and Choi (2017) analyzed the impact of firm size on dynamic incentives and investment using a continuous-time agency model. The firm improves on production efficiency as it grows, and wages are back-loaded when size is small but front-loaded when it is large. Furthermore, there is underinvestment in a small firm but overinvestment in a large firm.

Firm size is one of the most influential characteristic in organizations that has been found to influence firm performance. Bigger firms are presumed to be more efficient than smaller ones; the performance of large size life insurance companies is better than the small size life insurance companies (Watuka, 2014). Large firms are more stable and mature, therefore generate greater sales because of their great production capacity. CBK's organizational structure is not complex and facilitates as well as encourages employee creativity (Watuka, 2014).

Conceptual Framework

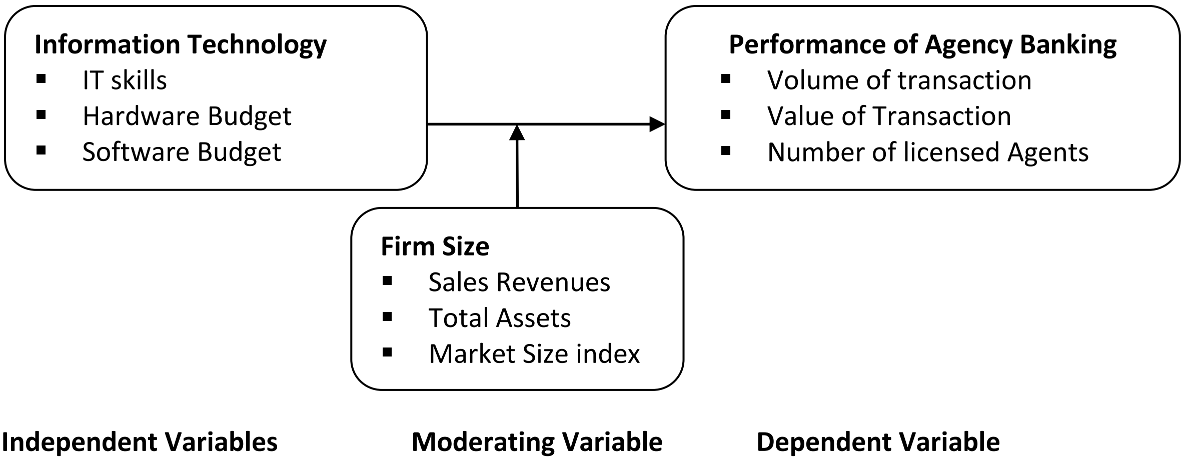

Figure 1: Conceptual Framework

METHODS

The study employed descriptive research design. The target population for the study was all the commercial banks in Kenya. Specifically, the study focused on commercial banks with agency banking since the subject matter of the study was one the performance of agency banking in commercial banks. A total of 303 bank branches from all the 18 commercial banks with agency banking in Nairobi County were surveyed using a structured questionnaire. The data was analysed using content analysis for the qualitative data and descriptive and inferential analysis for the quantitative data.

FINDINGS

A total of 303 questionnaires were issued out to the respondents. Out of these, a total of 251 questionnaires were returned fully filled implying a response rate of 82.8%.

Information Technology

The study assessed the influence of information technology on the performance of agency banking among commercial banks in Kenya. The respondents were asked to indicate their levels of agreement or disagreement with specific statements on information technology as it was applied in their respective commercial banks in line with enhancing the effectiveness of agency banking. The findings are as shown in Table 1. The findings implied that while many banks embrace ICT as a strategic driver of a tool to enhance the efficiency of their services, they are yet to give adequate attention to this important driver in that the budgeting to the major aspects of ICT (training and infrastructure) has not been keenly focused on. The literature revealed that ICT is mainly influential to the organizational performance only when adequate resources are allocated to training on ICT and ICT tools, failure to which its adoption and integration may not be successful (Park, 2009). As noted in the Technology Acceptance Model (TAM), for ICT to make notable changes to the organizational performance, it should be easy to use among the employees out of which their level of acceptance is high (Rogers, 2003). This is to imply that there is need for continued investment in the right ICT software and hardware as a way of bring the employees on board with the latest IT advancement and also invest in training for them to be up to date.

Table 1: Descriptive Findings on Information Technology

Statement	Mean	Std. Dev.
The bank has an adequate training budget for its staff on ICT Skills to support agency banking	2.50	1.13
The bank has adequate ICT Skills to support and enhance performance of agency banking operations.	3.81	1.17
The bank embraces new emerging ICT skills	3.96	1.06
My bank recognizes ICT software as a key driver to enhance performance	3.94	.97
My bank has embraced ICT software integration as a performance and strategic driver in agency banking	3.96	1.12
The bank has an adequate budget for emerging ICT software needs to support agency banking	2.72	2.02
My bank recognizes ICT hardware as a key driver to enhance performance	3.86	1.03
My bank has embraced ICT hardware integration as a performance and strategic driver	3.80	1.13
The bank has an adequate budget for emerging ICT hardware needs to support agency banking	2.01	1.02

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Firm Size

The study sought to analyse the moderating effect of firm size on the performance of agency banking in commercial banks in Kenya. The major aspects of firm size focused on in the study included the sales revenue, total assets and market size index of the bank. The respondents were asked to indicate their levels of agreement or disagreement on given statements in regard to firm size and agency banking. The findings are as shown in Table 2. The results revealed that majority of the respondents agreed that the size of their respective banks influenced the performance of agency banking. The respondents also stated that the sales revenues and the total assets made their banks stand a better chance to maximize the effectiveness of agency banking. The Central Bank of Kenya (2018) notes that smaller banks had some of their agent outlets close down as a result of declined performance of the banks and low customer uptake of the banks' products.

Table 2: Descriptive Results on Firm Size

Statement	Mean	Std. Dev.
The assets accumulated by the bank has been instrumental in the effectiveness of the agency banking	3.59	0.93
The sales revenues made by the bank have enabled the agency banking to perform more efficiently	3.61	1.08
The bank has adequate branch network to support the agencies across the country	3.00	1.22
The market size index of the bank has seen a growth in its agency banking due to the widespread demand for the bank's products	3.04	1.32
The market capitalization of the bank has more customers demanding our services thus leading to the success of agency banking	3.13	1.38
The size of the bank is significant to the performance of agency banking	3.47	1.94

Performance of Agency Banking

The study sought to establish the performance of agency banking in Kenyan commercial banks. The main aspects used to measure performance were volume of transactions through agency banking, value of the transactions as well as the number of licenced agents. The findings are as shown on Figure 2. As the results reveal, the average figures in deposits, and cash withdraws have been high among the banking agents.

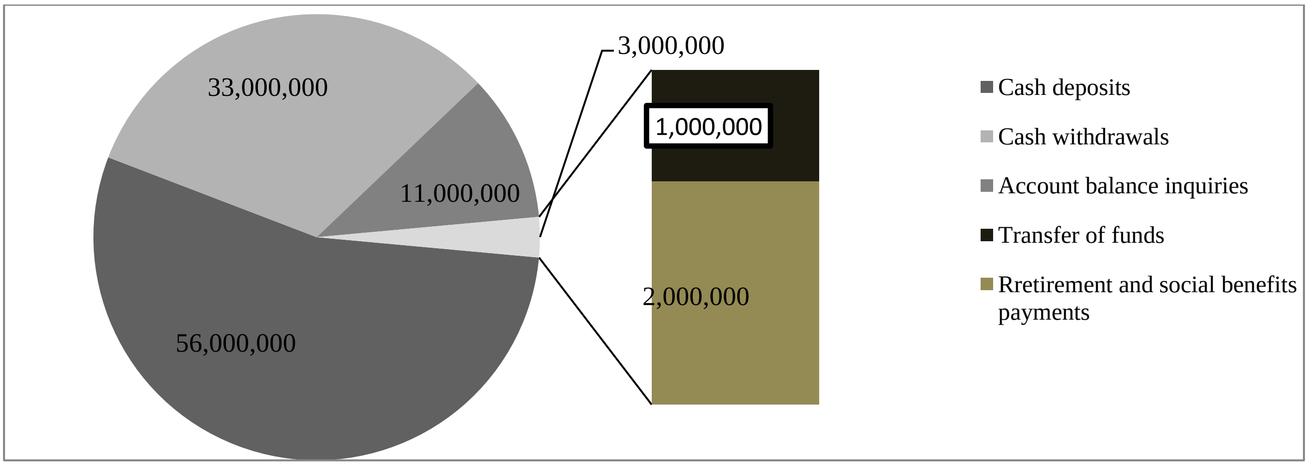

Figure 2: Performance of Agency Banking

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Inferential Analysis Results

Correlation Analysis

The correlation analysis results are as shown in Table 3. As the results portray, there is a strong correlation between information technology and performance of agency banking. Moreover, the correlation between firm size and performance of agency banking is strong and significant.

Table 3: Correlation Analysis Results

		Performance of Agency	Information Technology	Firm Size
Performance of Agency Banking	Pearson Correlation	1	.389	.619
	Sig. (2-tailed)		.000	.000
	N	251	251	251
Information Technology	Pearson Correlation	.389	1	.532
	Sig. (2-tailed)	.000		.000
	N	251	251	251
Firm Size	Pearson Correlation	.619	.532	1
	Sig. (2-tailed)	.000	.000	
	N	251	251	251

Regression Analysis

H_{o1}*: *Information technology has no significant influence on performance of agency banking in commercial banks in Kenya.

The study assessed the influence of information technology on the performance of agency banking in commercial banks in Kenya. As the results reveal, the R^2 for the model was 0.623. This implies that up to 62.3% variation in the performance of agency banking among commercial banks in Kenya is as a result of information technology. The ANOVA test results revealed that the F-Statistics was 44.338 at a significance level of 0.000. This is an implication that information technology significantly influences the performance of agency banking since the P-value (0.000) is lower than the standard p-value of 0.05. The regression coefficient results revealed that the Beta coefficient for information technology is 0.680. The findings imply that a unit increase in information technology would lead up to 68% increase in the performance of agency banking. The P-value for the variable is 0.000 which is less than 0.05. This is to imply that there is a significant influence of information technology on the performance of agency banking. The findings therefore support the rejection of the null hypothesis that there is no significant and positive influence of information technology on the performance of agency banking.

Table 4: Regression Model Results for Information Technology and Performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789[a]	.623	.548	3.27328

a. Predictors: (Constant), Information Technology

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	475.050	1	475.050	44.338	.000[b]
	Residual	2667.883	249	10.714		
	Total	3142.932	250			

a. Dependent Variable: Performance of Agency Banking

b. Predictors: (Constant), Information Technology

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Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.299	.761		5.645	.000
	Information Technology	.680	.112	.789	6.071	.000

a. Dependent Variable: Performance of Agency Banking

Firm size has no significant moderating effect on the relationship between information technology and performance of agency banking in commercial banks in Kenya.

The results revealed that information technology when interacted with firm size; it enhances performance by 22.3%. The relationship is significant at a P-value of 0.000<0.05 an indication that firm size significantly and positively moderates the relationship between information technology and performance of agency banking among the commercial banks in Kenya. The null hypothesis was therefore rejected.

Table 5: Regression Coefficients (Moderated)

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-37.049	30.149		-1.229	.220
Information Technology * Firm Size	.223	.044	.227	5.082	.000

a. Dependent Variable: Performance of Agency Banking

Discussion

The study sought to assess the influence of information technology on the performance of agency banking in the commercial banks in Kenya. The descriptive analysis of the study variables revealed that mobile banking, Point of Sale and ATM banking were the main IT based banking methods adopted by the commercial banks. Most of the banks however did not uphold training their agents on the ICT skills to enhance their ability to use information technology in their operations. Most of the respondents however noted that their respective banks had adequate ICT skills internally to support the agency banking. The inferential statistics revealed that information technology had a positive and significant influence on the performance of agency banking among the commercial banks in Kenya.

CONCLUSION AND RECOMMENDATIONS

The study concluded that information technology had a significant effect on the performance of agency banking among the commercial banks in Kenya. Through adoption of ICT, the monitoring of the agency banking agents is made easier while creating a more convenient platform for enhancing information sharing with the agents through which more learning and coordination is enhanced. Although training was not found to be highly upheld on the use of ICT among the agents, the study concluded that training on use of ICT created a more ICT-based culture of operation while enhancing its adaptability among the employees.

Information technology stands to be a critical driver of any strategy in the modern business era. The commercial banks are also obliged to maximize their use of technology and particularly in the agency banking. The banks ought to ensure that the agents are well trained and ready to embrace

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information technology through which information sharing between the bank and the agent or between the agent and the customers or between the agent and another agent is enhanced to steer learning , customer service and efficient service delivery. The banks should uphold provision of ICT platforms and infrastructure to both the employees and the agents as way of enhancing the use of ICT to steer effectiveness of agency banking.

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