EFFECT OF E-PAYMENT ON THE PERFORMANCE OF COMMERCIAL BANKS IN KAKAMEGA TOWN, KENYA

Linda Phoebe*[1], Dr. Dennis Mukanzi[2], Dr. Douglas Musiega[2]

[1]Masters Student, JKUAT, Kenya.

[2]Lecturer, JKUAT, Kenya.

ABSTRACT

The paper aimed to establish the impact of E-payment on the performance of Commercial Banks in Kenya. The study applied a descriptive research design. The population of this study included a sample size of 53 employees being 30 % of of the entire population as recommended by Kombo and tromp (2006), through simple random sampling from the Commercial Banks. Piloting was done to establish the validity of the research instruments. To ensure the reliability of the research instruments, the study used a Cronbach's Alpha coefficient of at least 70% which is acceptable implying that the instruments are reliable. Both descriptive and inferential statistical tools were used in this study. The results were presented in form of frequency tables and cross tabulation tables. From the findings, the results showed r squared value of 0.563, which implied 56.3 percent of performance in commercial banks in Kakamega town was explained by E-payment. The study focused on commercial banks in Kakamega town. Other commercial banks outside Kakamega town were not considered and hence the study might be subjective in terms of location. On recommendation, the study did not cover the moderating effect of Government policy on the relationship between ICT and bank performance. Future studies are encouraged to assess this moderating influence. The study was covered in 2018. Future studies are encouraged in consideration of time to keep the debate on going. Future studies are encouraged to include all the commercial banks in Kenya to compare the findings. The outcome of this study is hoped will contribute to existing pool of knowledge in strategic management.Moreover, the findings of this study will form a framework for reference by interested researchers in future.

Keywords: E-Payment, Performance of Commercial Banks, Kakamega town, Kenya.

INTRODUCTION

In a global perspective, the application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness banking (Connel and Saleh, 2004). The advancement in Technology has played an important role in improving service delivery standards in the Banking industry. In its simplest form, Automated Teller Machines (ATMs) and deposit machines now allow consumers carry out banking transactions beyond banking hours. With online banking, individuals can check their account balances and make payments without having to go to the bank hall. This is gradually creating cash less society where consumers no

longer have to pay for all their purchases with hard cash. Bank customers can pay for airline tickets and subscribe to initial public offerings by transferring the money directly from their accounts, or pay for various goods and services by electronic transfers of credit to the sellers account.

As most people now own mobile phones, banks have also introduced mobile banking to cater for customers who are always on the move. Mobile banking allows individuals to check their account balances and make fund transfers using their mobile phones. This was popularized by Safaricom through its "M-pesa" money transfer product and customers can also recharge their mobile phones via SMS. Since this innovation, banks has perfected by interlinking customers deposit accounts with mobile money transfer. This e-banking has made banking transactions easier around the World and it has fast gaining acceptance in Kenya Other delivery channels today in Kenya electronic banking are telephone banking, smart cards, internet banking etc. Personal computers in the banking industry were first introduced into Kenya by Barclays bank and since then internet is increasingly used by Bank's as a channel of delivering the products and services to the numerous customers (Kariuki, 2005).

A recent study by Baldwin and Sabourin (2003) that links technology use to plant performance in the food processing sector also finds that plants that were using new computer-driven advanced technologies experienced greater growth in labor productivity and market share during the period 1988 to 1997. The penetration of Information Technology (IT) is ubiquitous: from individual to business and to government, from kids to elderly, from marketplace to workplace and to universities, ICT appears as mobile phone, PDA, laptop, desktop, mainframe server, broadband, Internet, World Wide Web, digital surveillance system, RFID systems (which work in distribution centers of Wal-Mart and FedEx), Windows OS, Enterprise Resource Planning (ERP) system, Customer Relationship Management (CRM) system, and so on. Despite its various forms, its functions can be summarized simply as recording, processing, storing, and distributing information, which is conveyed in forms of numerical data, formula, text, image, video, program codes, and so on. Many terms have been invented to describe this extent of penetration, such as "Information Economy", "New Economy", "Information Society", and "Digital Era". Birch and Young (1997) show that consumers around them, changes in terms of IT, Innovation seek convenience, transactional efficiency, a choice and Demography. Without this understanding, of core banking products and non-core products, and attempts to migrate to IT may be doomed to fail.

STATEMENT OF THE PROBLEM

Recently, the world has witnessed a great development and a rapid change in the global banking environment as the circumstances obligated the banking industry to reconsider its structure, laying down strategies and the means used to achieve them in a world where the concepts became different and diversified and the competition turned out to be the foundation on both the domestic and international arena (LFB, 2010). Business organizations and especially the banking sector are operating in an environment characterized by a complex and competitive climate (Agbolade, 2011). Technological advances are the most important variables which have contributed to the radical shift in the patterns of the banking business in

the era of globalization; technology has focused the keen interest of banks to intensify attempts to take advantage of the latest information technologies, communications and computers, and to adapt efficiently in order to invent banking services and the development of novel methods of submission (Aliyu and Tasmin, 2012). ICT has specifically resulted in a total alteration of the norms on the performance of the banks and on the provision of client facilities in the banking sector, also the ICT advancement has a considerable impact on the advancement of additionally accommodating and user friendly banking facilities (Aliyu and Tasmin, 2012). The present study sought to establish the effect of E-payment on the performance of commercial banks in Kakamega town.

STUDY OBJECTIVE

To establish the effect of E-payment on the performance of commercial banks in Kakamega town.

RESEARCH QUESTION

What is the effect of E-payment on the performance of commercial banks in Kakamega town?

RESEARCH HYPOTHESIS

Ho1 There is no statistically significant effect of E-payment on the performance of Commercial Banks in Kakamega town, Kenya

LITERATURE REVIEW

Technological determinism is a reductionist theory that presumes that a society's technology drives the development of its social structure and cultural values. Changes in technology and productive technology are the primary influence on the organization of social relations, and those social relations and cultural practices ultimately revolve around the technological and economic base of a society. Technological determinism seeks to show technical developments, media, or technology as a whole, as the key mover in history and social change. Most interpretations of technological determinism share two general ideas: that the development of technology itself follows a predictable, traceable path largely beyond cultural or political influence, and that technology in turn has "effects" on societies that are inherent, rather than socially conditioned or produced because that society organizes itself to support and further develop a technology once it has been introduced. Strict adherents to technological determinism do not believe the influence of technology differs based on how much a technology is or can be used. Instead of considering technology as part of a larger spectrum of human activity, technological determinism sees technology as the basis for all human activity.

Technological determinism has been defined as an approach that identifies technology, or technological advances, as the central causal element in processes of social change (Croteau and Hoynes, 1996). As a technology is stabilized, its design tends to dictate users' behaviors, consequently diminishing human agency. This stance however ignores the social and cultural circumstances in which the technology was developed. Sociologist Claude Fischer (1992) characterized the most prominent forms of technological determinism as billiard ball

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approaches, in which technology is seen as an external force introduced into a social situation, producing a series of ricochet effects. Rather than acknowledging that a society or culture interacts with and even shapes the technologies that are used, a technological determinist view holds that "the uses made of technology are largely determined by the structure of the technology itself, that is, that its functions follow from its for (Neil, 1996). However, this is not to be confused with the inevitability thesis (Daniel, 1999) which states that once a technology is introduced into a culture that what follows is the inevitable development of that technology.

The technology advancement in the world over is so rapid and wide spread that isolates manufacturing and technology from each other is merely an impossible proposition. Information Technology is becoming critical to many manufacturing organizations that want to be a world-class manufacturer as ICT often provides a manufacturing based advantage. Information Technology can assist banking institutions in developing their strategic roles. In today's competitive global market, for the survival of any industry, manufacturing companies need to be pliable, adaptive, responsive to change, proactive and be able to produce a variety of products in short time at a lower cost (Ho, 1996). Hence, manufacturing companies are compelled to seek advanced technologies by integrating manufacturing facilities and systems in an enterprise through computers, its peripherals and communication network to transform island of enabling technologies in to a highly interconnected manufacturing systems.

Mobile money transfer (MMT) operates in a very easy and simple way. MMT services allow customers to use their phone like a bank account and a debit card. These customers credit their accounts at a local authorized agent and can then transfer the money to another person's phone or use for different transactions such as making loan repayment, paying bills or redeeming it as cash. MMT is still at an early stage of development in Kenya but ahead of the world: it is designed to bring the economic advantages of having a savings and money transfer facility to those with small, irregular or cyclical incomes (Pulver, 2009). Recent evidence suggests that there is an increase in penetration and use of MMT services in Kenya (Mason, 2007). Figures for the other MMT service players were not immediately available. This represents substantially more points of service than the combined number of bank branches (1063) and Automated Teller Machines (ATMs) (Central Bank of Kenya, 2010).

Mobile Money Transfer, MMT is a range of applications, technologies, business models, involving some form of financial transaction using a mobile device, whether there is an underlying bank account or not (Namy& Flouriot, 2009). Mobile money is commonly referred to as M- Banking. Mobile banking is still in its early stages of development in African countries with the regulatory environment and the state of play in the market structuring in order to provide for the mobile revolution.Jack,(2010) notes that the introduction of mobile banking has reduced communication in many parts of the developing world from prohibitive levels to trivial amounts. This transformation has largely been active in the Sub-Saharan region of Africa. NHIF uses M-PESA mobile money transfer for its individual members. Similarly, the community banking introduced by Standard Chartered Bank leverages MTN mobile Money technology. The product allows the customer to be linked to a Sim Card whereby the customer can then transact on these accounts through an

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agent or a community banker who is a partner of standard bank. This solution allows customers to perform transactions such as purchase transactions, money transfer, account enquiries.

More recent is the Mobile Virtual Operator Network (MVON) that Equity Bank strategizes to roll out in July 2013.Under this platform, Equity seeks to utilize Airtel' excess capacity to deliver MVNO services. Equity MVNO is a case study of banking going virtual. Customers will access all banking services on a Sim Card provided by Equity Bank. These benefits will be passed on to customers in term of affordable costs, innovative and next generation services and products. With the rise of M-Banking, M-Health initiatives are on the rise all over the world (West D, 2012). Africa however has recorded the least adoption rate of M-Health initiatives.

CONCEPTUAL FRAMEWORK

Figure 2.1 shows the interaction between E-payment and Performance of Commercial Banks
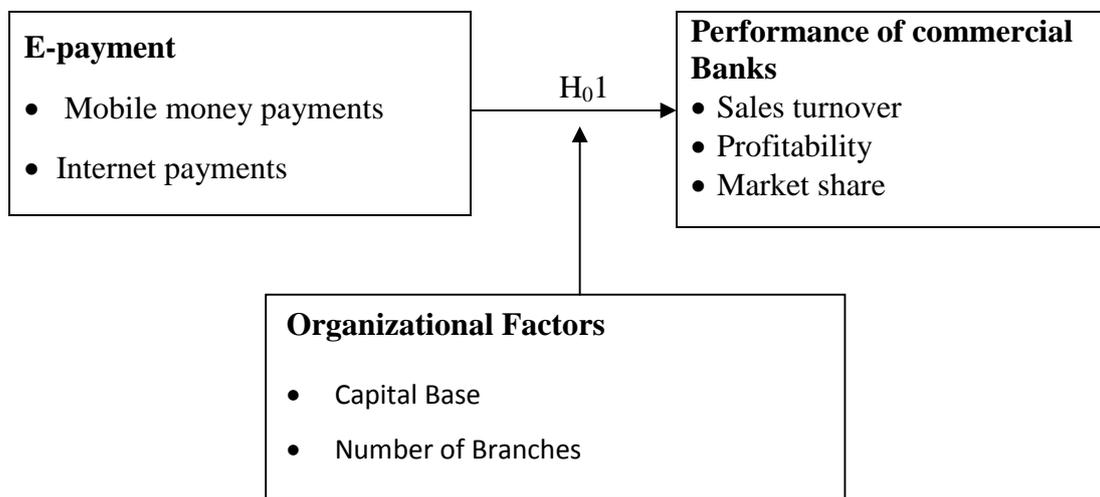
Figure 2.1: Conceptual Framework

RESEARCH METHODOLOGY

The study adopted a descriptive survey due to its ability to consider diverse aspects of the research problem and helping the researcher to describe precisely what is being seen (Saunders et al., 2007). A descriptive research design also enables generation of factual information about the study. A descriptive research design is concerned with describing characteristics of a problem. A descriptive research design is deemed appropriate for this research paper because it helped to portray accurate profile of events and how they are. It also allowed for in-depth analysis of variables and elements of the study population as well as collection of large amounts of data in a highly efficient way.

The study was conducted all Commercial Banks within Kakamega town, Kenya. Kakamega town is found in the larger Kakamega County and it is the headquarters of the County. The town lies between longitudes $34^0 32$" and $35^0 57'30$"east of the prime meridian and latitudes $0^0 07'30$" North and North $0^0 15$" of the equator. Kakamega town was chosen due to proximity from the researcher to carry out research at reduced cost.

Random sampling was used on the population to ensure representation of the of the study groups. The study considered a sample size of four banks and middle and top employees of the different commercial banks based at the bank headquarters. The study adopted a sample determination table used in social research. Probability sampling was used in identifying the sample groups. The employees of the commercial banks selected were the sample size that was used in the study.

The sample size of employees was determined by use of Kombo and Tromp (2006) recommendation that a sample size of 10% to 30% is representative enough for the study population. Therefore the sample size of employees was determined on the basis of 30% recommended by Kombo and Tromp (2006)

Primary data was obtained from the questionnaires and interview schedules as research instruments. Questionnaires were used to capture data from the respondents. This instrument was used in the study because it is confidential, saves on time, has no bias and covers wide area (Mugenda and Mugenda, 2003). The questionnaire as an instrument used both closed ended and open ended questions in its structure.

The study used both descriptive and inferential statistics during data analysis. Numerical scores were awarded to closed ended questions. Descriptive statistics employed the use of means, frequencies and percentages and for inferential statistics. Quantitative data collected from respondents was coded and analyzed using the Statistical Package for Social Sciences (SPSS version 20) tool. Simple regression was used to determine the influence of project characteristics on completion of construction projects. The following table shows how the hypothesis was tested and decision rule.

Data collected was subjected to cleaning, processing and analysis. It was processed by the use of SPSS Version 21 and was analyzed by the use of both descriptive and inferential statistics; Multiple regression analysis such as Mean, Mode and Variance and Pearson's correlation coefficient respectively. It was then be presented in form of tables, graphs and charts.

The following regression model was used:

$Y = \beta_0 + \beta X + \varepsilon$

Where:

Y   =   Performance of commercial Banks

B= Beta coefficient which measures how many standard deviations a dependent variable will change, per standard deviation increase in the independent variable.

X   =   E-Payment

ε =   Error term

β was a regression coefficient of independent variable

STUDY RESULTS

A total of 53 questionnaires were issued to the respondents out of which 52 questionnaires were correctly filled and returned. This constituted 98.1% of which was considered adequate

and in line with Kothari (2004) who recommended that a return rate of more than 50% was acceptable in social science research.

From the results, majority of the respondents 29, were aged 25 years to 34 years. Those aged 35 to 47 years were 16 which was equivalent to 30.8 percent. In addition, 7.7 percent of the respondents were aged above 48 years while the remaining 3 respondents, which represents 5.8 percent of those who participated in this study were aged 18 years to 24 years. The age of the majority of respondents is important because it is an active age that is quite productive in determining the success of any given task (Sin, 2010).

The results show that out of majority of the respondents 22, which is equivalent to 42.3 percent had 3 to 5 years of experience, 11.5 percent had less than 1 year, 14 respondents had 1 to 2 years of experience in the banking industry, while the remaining 19.2 percent which represents 10 respondents had over 5 years of experience. Majority of the respondents had over 3 years of experience in working in commercial banks in Kakamega town. Experience is an important factor in determining performance of commercial banks in Kenya.

The objective of the study was to establish the effect of E-payment on performance of commercial banks in Kakamega town. To achieve this, the respondents were asked to give their opinion showing the level of their agreement or disagreement with the statement provided in a Likert scale of 1- 5 where: Strongly agree (SA)=5, Agree(A)= 4, Neutral or not sure (N)= 3, Disagree (D)= 2 and Strongly disagree (SD) = 1. The summary of the descriptive results are presented in Table 4.10.

Table 4.1 Descriptive Statistics of E-payment

Statements	Mean	Std. Deviation
Making payments by use of mobile phones reduces the queues in the bank and hence good for businesses	3.9615	1.1019
Withdrawing of cash through mobile phones from individual accounts reduces time for banking.	4.0769	1.06359
Employers can pay their staff through the use of M-pesa after issuing instructions to the paying bank. This makes it easier to operate	4.2115	0.87080
Use of E-payment has improved efficiency of operations in our bank	4.6154	0.56547
Through E-payment, the bank has improved on customer service	3.942	1.31974
Composite mean and Standard Deviation	**4.1615**	**0.9843**

From the results in Table 4.1, the composite mean was 4.1615 while the composite standard deviation was 0.9843. This implied from the descriptive statistics that the opinion of the respondents concerning E-payment was spread across the five point Likert scale given that the standard deviation was below zero (0). In addition, the composite mean 4.1615 is close to the score 4 which on the Likert scale which implied they were in agreement with the said statement on e-payment.

Hypothesis Testing.

Ho1: There is no significant effect of E-payment on performance of commercial banks in Kakamega town.

The study used simple regression model to test this null hypothesis.

First, the test criteria was set such that the study accepts the hypothesis if the value of beta, $\beta_1 \neq 0$.

The relationship between E-payment and performance was put in a simple linear regression model of the nature

$Y = \alpha + \beta_1 X_1 + e$ was used where;

Y is performance of commercial banks in Kakamega town, α is the y-intercept term, X_1 is E-payment, β_1 is the beta value and e is the standard error term. The mean of E-payment (X_1) was regressed with mean of performance of commercial banks (Y) through simple regression. The interpretation of the results involved using significance of R square and Regression coefficient at 95.0% confidence level. Summary of the results were presented in Table 4.2.

Table 4.2: Regression model summary of E-payment and Performance of Commercial Banks in Kakamega town

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.750[a]	.563	.554	3.06452	2.125

a. Predictors: (Constant), E-payment

b. Dependent Variable: Performance

Summary of the results in Table 4.2 show r squared value of 0.563, which implied 56.3 percent of performance in commercial banks in Kakamega town was explained by E-payment. Since the Durbin Watson value is 2.125, which falls in the range 1.5 to 2.5, implied there exist positive serial correlation amongst the variables i.e. relationship of values separated from each other by a given time lag in the residuals is positive (Field, 2009). The serial autocorrelation was corrected by centering the values of indicators at their means.

The ANOVA results were summarized in Table 4.3

Table 4.3 ANOVA Test of E-payment and bank Performance

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	605.261	1	605.261	64.449	.000[b]
	Residual	469.566	50	9.391		
	Total	1074.827	51			
a. Dependent Variable: Performance						
b. Predictors: (Constant), E-payment						

From the results in Table 4.3, the analysis of variance showed the F-statistics was recorded as 64.449 at p=0.000, implying the model fitted between the two variables. Summary of the regression model is presented in Table 4.4

Table 4.4 Regression of E-payment and Bank Performance

Coefficients[a] Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.292	2.802		1.461	.002
E-payment	5.069	.133	.750	8.028	.000
a. Dependent Variable: Performance					

The unstandardized regression coefficient (β_1) value of mobile banking was 1.292 with a t-test value of 1.461 and significance level of $p \leq 0.002$. Further, the findings established that a unit change in e-payment would result to a change in performance of commercial banks in Kakamega town by 6.567. At 5% level of significance and 95% level of confidence, e-payment was significant in predicating performance commercial banks in Kakamega town. Hence, completing the equation;

Bank Performance = 1.292+ 0.750 E-payment +e.

The hypothesis was thus rejected.

CONCLUSION

The findings revealed that E-payment, had a statistically significant positive effect on bank performance.

RECOMMENDATION

From the results in this study, commercial banks need to embrace the idea of E-payment to maximize t=on their profit and shareholders value.

LIMITATIONS

The study focused on commercial banks in Kakamega town. Other commercial banks outside Kakamega town were not considered and hence the study might be subjective in terms of the location.

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