Effects of E-Banking on Growth of Customer Base in Kenyan Banks

Dr. Bichanga Walter Okibo, *Ali Yattani Wario

*Senior Lecturer, (Ph.D., MBA, Bcom., Dip. Computer Science, Dip. Personnel Management) Jomo Kenyatta University of Agriculture and Technology

*Scholar, MBA - Finance, B.COM - Finance and CPA) MARSABIT, Kenya

E-mail: walter.okibo@yahoo.com, warioalii@gmail.com

Abstract

The study highlights the effects of E-banking services on growth of customer base in Kenyan banks over the last 5 years and what factors hindered the effective utilization of E-banking service in Kenyan banks and its impact on growth of customer base. This study addressed issues that affected effective utilization of E-banking facilities by customers. The study used three key variables in investigating the problem and those variables include: card system, automated teller machine (ATM) and electronic fund transfer. The study generally investigated how lack of technological know-how, illiteracy, unreliability, and transaction limits has hindered growth of on-line customer base in Kenyan banks. E-banking provides enormous benefits to consumers in terms of time saving and cost of transactions, either through internet, telephone or other electronic delivery channels. For many consumers, electronic banking means 24-hours access to cash through an Automated Teller Machine (ATM) or Direct Deposit of paychecks into checking or savings accounts. But electronic banking now involves many different types of transactions. E-banking is a form of banking where funds are transferred through an exchange of electronic signals between financial institution, rather than exchange of cash, cheque or other negotiable instruments. The research adopted a descriptive research design, a survey of selected Kenyan banks. The study used stratified random sample to ensure equal representation where 135 respondents were selected from the strata/banks. According to the results obtained in the study e-banking has enhanced the growth of the customer base for the banking institutions in Kenya, through enhancing banking services accessibility to a larger population in the country. Therefore the study recommended the banks should embrace e-banking as a key competitive advantage.

Keywords

Electronic Banking, Innovation, Internet Banking and Customer Base

I. Abbreviations

ACH- Automated Clearing House; ATM-Automated Teller Machine; CBK-Central Bank of Kenya; ICT-Information and Communication Technology; ISP-Internet Service Provider; IT-Information Technology; PC- Personal Computer; PDA-Personal Digital Assistant; POS-Point of Sale; USA-United State Association

II. Background of the Study

Financial services industry over time has opened to historic transformation that can be termed as e-developments which is advancing rapidly in all areas of financial intermediation and financial markets such as e-finance, e-money, electronic banking (e-banking), e-brokering, e-insurance, e-exchanges, and even e-supervision. In recent years, the adoption of e-banking began to occur quite extensively as a channel of distribution for financial services due to rapid advances in IT and intensive competitive banking markets (Mahdi and Mehrdad, 2010; Dube, et. al., 2009). The driving forces behind the rapid transformation of banks are influential changes in the economic environment include among others innovations in information technology, innovations in financial products, liberalization and consolidation of financial markets, deregulation of financial inter-mediation. The e-banking is transforming the banking and financial industry in terms of the nature of core products/services and the way these are packaged, proposed, delivered and consumed. It is an invaluable and powerful tool driving development, supporting growth, promoting innovation and enhancing competitiveness (Gupta, 2008; Kamel, 2005). The evolution of banking technology has been driven by changes in distribution channels as evidenced by automated teller machine (ATM), Phone- banking, Tele-banking, PC-banking and most recently internet banking (Chang, 2003; Gallup Consulting, 2008). Some key issues addressed in the recent literature about the e-banking include: customer acceptance and satisfaction, services rendered, value added for consumers and banks, privacy concerns, profitability, operational risks, and competition from non-banking institutions (Boss, et al., 2000) Currently, there are about 8 million users of M-banking services compared to 4 million people who hold accounts in conventional financial institutions in Kenya (CBK, 2008). The tremendous increase in number of people adopting M-banking has been attributed to ease of use and high number of mobile phone users.

III. Statement of the Problem

In recent past, banks are challenged by technological up scale that led to innovative products which stiffed up competition for market share. There is a shift from paper-based to electronic payments and reliance on ATMs rather than costly branch offices to deliver cash and other depositor related services. Both banks and customers are increasingly migrating from traditional banking channels to the e-banking channel (Mols, 1998 and 2000) but despite the benefits and advantages of e-banking for both sides, it entails some critical issues both for customers and the banks. It is the intent of this study to determine the effect of E-banking service on growth of customer base in Kenyan banks. This research shade some light on factors that hinders effective utilization of e-banking service by bank customers and challenges banks face in adopting this technological innovation.

IV. Objective of the Study

The major objective of this study was to determine the effect of
e-banking service on growth of customer base in Kenyan banks with the hope that such an attempt provides ground for more attentions on functional aspects of service quality in e-banking approach by bank managements. The specific objectives include:

- To determine the influence of electronic fund transfers on growth of customer base in Kenyan banks.
- To establish the degree of uptake of card technologies on growth of customer base in Kenyan banks.
- To evaluate how ATM availability affects growth of customer base in Kenyan banks.
- Scope of the study.

The study covered three major selected commercial banks of Kenya head offices situated in Nairobi namely; Barclays bank, equity bank and Co-operative Bank of Kenya. The population for the study was based on the top management working in the head office to represent the entire population of banks in Kenya.

V. Literature Review

Relevant literature to this research was reviewed from books, journals, websites, magazines and manuals. Also much empirical review was covered under this section which included literature on Electronic Fund Transfers, The Card System, The ATM Availability, E-banking and Customer Perceived Value in Internet Banking. Also a range of theories where covered under theoretical review which included; The Innovation Diffusion Theory and Disruptive Innovation Theory.

Conceptual Framework

This section assessed the research variables derived from literature to test whether there were significant relationships between the independent variables and the dependent variable. It focused on the determinant variables identified in the study, which would be associated with the growth of customer base in Kenyan banks. In this study, the explanatory variables were classified as; electronic fund transfer, card technologies and ATM availability.

Electronic Fund Transfers is a system of transferring money from one bank account directly to another without any paper money changing hands. Transactions are processed by the bank through the Automated Clearing House (ACH) network, the secure transfer system that connects all U.S. financial institutions. For payments, funds are transferred electronically from one bank account to the billing company’s bank, usually less than a day after the scheduled payment date. The growing popularity of EFT for online bill payment is paving the way for a paperless universe. The recently launched mobile banking financial transfer system of which service has gone global (M-Pesa) which allows customers from UK to transfer funds to Kenya will also increase the upwards trends in the uptake of EFTs.

The Card System is a unique electronic payment type. The smart cards are plastic devices with embedded integrated circuit being used for settlement of financial obligations. The power of cards lies in their sophistication and acceptability, to store and manipulate data, and handles multiple applications on one card securely (Amedu, 2005). Uptake of bank cards has gone high, fueling the excitement over branchless banking. Cash withdrawals make up 70 percent of the cash transactions at ATMs at one bank in Kenya.

The ATM Availability; Literature review indicates different dimensions of ATM service quality. Lovelock (2000) identified secure and convenient location, adequate number of ATM, user-friendly system, and functionality of ATM. Davies et al., (1996) identified costs involved in the use of ATM and efficient functioning of ATM. (Joseph & Stone, 2003) identified user-friendly, convenient locations, secure positions, and the numbers of ATM provided by the bank as essential factors of ATM service quality. Mobarek (2007) established speed of operation, and waiting time as the important predictors of ATM service quality.

Theoretical Review

The Innovation Diffusion Theory explains individuals’ intention to adopt a technology as a modality to perform a traditional activity. The theory is developed by (Roger’s, 1983). The critical factors that determine the adoption of an innovation at the general level are the following: relative advantage, compatibility, complexity, triability and observability (Rogers, 1995). The nominalized factors are complexity, triability and observability.

Disruptive Innovation Theory; in the area of electronic retail banking there has been an ongoing dispute among academics regarding the disruptive nature of the new business models based on the Internet. In their book “The innovator’s solution”, Christensen and Raynor state that “Internet banking can only be deployed as a sustaining technology relative to the business model of retail banks” (Christensen and Raynor, 2003).

Empirical Review

E-banking: (Daniel, 1999) defines electronic banking as the delivery of banks’ information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer, a mobile phone, telephone or digital television. “This is an umbrella term for the process by which a customer may perform banking transactions electronically without visiting a brick-and-mortar institution” (FinCen, 2000).

Customer Perceived Value in Internet Banking; (Buys and Brown, 2004) enumerate common products and services that customer access from internet banking; Balance enquiry, Statement of bank account, Account/Bill payment, Beneficiary set up, Short-term recurring payments, Stop and Debit order payments, Open and Manage Investment accounts, Email branch or customer contact centre (secure messaging), Funds transfers, Increase/ Decrease overdraft. Electronic banking, and for that matter internet banking, is changing traditional banking activities such as payment mediums, (Buys & Brown, 2004) physical transaction processes, delivery channels, and security systems. It has also come with novelty in information, customization and self-service offering differentiating itself sharply from traditional banking report (Wu et al., 2006).
**Knowledge Gap**

The research addressed the challenges that banks face in transition from paper banking to e-banking and its impact on growth of customer base. The banking sector faced a range of limitations in embracing digital technology and this includes: technological know-how, unreliability, illiteracy and limitation on transaction amount have hindered effective utilization of E-banking services and this study addressed such factors in depth.

**Research Design and Methodology**

This study was conducted with aim of investigating effect of e-banking services on growth of customer base; this research adopted a descriptive research design, and surveyed a group of selected Kenyan banks. This helped the study to critically analyze the case in question with a view of drawing more detailed and specific information about the subject that was useful to the banks.

The target population of the study was top management teams from the three selected banks. The research used purposive sampling to select three banks namely Equity Bank, Barclays bank of Kenya and co-operative bank of Kenya. This method is considered appropriate because the population of interest is homogenous. The study also used stratified sampling approach to cover the total population. This was done using a stratified random sample to ensure equal representation. A sample size of 135 was selected for the study.

**Table 1: Sample Frame**

<table>
<thead>
<tr>
<th>Population</th>
<th>Frequency</th>
<th>Ratio</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barclays bank</td>
<td>200</td>
<td>0.3</td>
<td>60</td>
</tr>
<tr>
<td>Equity bank</td>
<td>150</td>
<td>0.3</td>
<td>45</td>
</tr>
<tr>
<td>Co-operative bank</td>
<td>100</td>
<td>0.3</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td>0.3</td>
<td>135</td>
</tr>
</tbody>
</table>

To achieve the objectives of the study, both primary and secondary data were collected. The secondary data was obtained from archived sources such as published material, journals internet resources, while primary data was collected by the use of questionnaires which had both open and close ended questions. Data was analyzed by both qualitative and quantitative approaches finally summarized and presented using tables and charts.

**Data Analysis, Presentations and Interpretation**

This section comprises of data analysis, presentation and interpretation of the findings. The data presented includes response rate, background information of the respondents and a presentation of findings against each individual response.

**Rating the Banking Services Accessibility in Introduction of e-banking**

The study sought to know if there were any influences that the electronic funds transfer had brought on the banks services accessibility. The results were as per the figure below.

![Fig.2: Rating the Banking Services Accessibility in Introduction of e-banking](image)

The findings indicated that majority of the respondents felt that it had high influence on the accessibility on the banking services as 45% rated it high, the 35% of the respondents rated it medium while 20% rated it low. This implies that the introduction of the electronic funds transfer had positive impact on the banking sector.

**Effect of Electronic Fund Transfers Services on Growth of the Banking Sector**

This question seeks to establish whether there was significant growth that could be observed with the introduction of electronic fund transfers in the banking system. The results were as per the figure below.

![Fig.3: Effect of Electronic Fund Transfers Services on Growth of the Banking Sector](image)

The results from the respondents indicated that majority agree to the growth that was evident in the sector with 80% confirming while 20% of the respondents could not find any significant growth, this therefore implied that many people have embraced banking due to the introduction of electronic fund transfers system.

**Factors Affecting Access to E-Banking Service**

This question seek to rate various factors that affect the e-banking services in the country. This would help in the assessment of those factors that could be standing on the way of this system of banking.

![Fig.4: Factors Affecting Access to E-Banking Service](image)
On reliability majority agree that electronic money transfer is more reliable hence implying that the introduction of e-banking has made money transfer more accessible and reliable. As indicated on the issues of having many legal and security issues majority of the respondent agreed that these services were straightforward to those who understand them. On the issues of high cost of services majority disagreed implying that the cost of these services were well within the clients reach and therefore were not very high as insinuated. On lack of security information majority of the respondents disagreed indicating that there was enough information on e-banking. Majority of the respondents disagree that there is high chance of fraud in e-banking connoting that the loopholes that could lead to fraudulent acts have been sealed making it safe. On the sentiment that’s the risk of data loss was real majority of those who responded disagreed indicating that there was no easy possibility of data loses.

**Effect of Electronic Fund Transfers on Banking Efficiency**

This question seeks to find out if there was any improvement on efficiency and the accessibility of the banking services in the bank.

Majority of the respondents agree that there is improved efficiency which is indicated by 50% while 30% strongly agree, this therefore implied that there was remarkable improvement. Customers Awareness on Existence of E-banking Services

This question seek to find out the rate of awareness to e banking from the banks customers in order to know if there is large group still left out from taking up this option of banking.

50% of the respondents agreed that they are aware of the system implying that there were a large number of their clients who have knowledge on the E-banking services.

**The Degree of Uptake of Card Technologies on Growth of Customer Base For Banks In Kenya**

Following questions were focused in clarifying the same;

**Population that is not Reached by E-Banking**

This question seeks to find out whether there are still people who should be reached and sensitized on these issues by the bank. It could help deduce if there are still potential clients that the banks should still lure.

![Fig. 7: Population that is not reached by E-Banking](image)

According to the results obtained majority of the respondents agree with 70% indicating so, while 30 % of them disagree on the issues. This implies that there is a large number that could still be reached by the bank.

**Card Technology has Resolved the Selected Limitations which Hinders Bank Accessibility**

The sentiment targeted to find out if the card technology could resolve the stated limitation which hinders bank accessibility. The respondents’ feelings were as per the figure below.

![Fig. 9: Card Technology has Resolved the Selected Limitation which Hinders Bank Accessibility](image)

The result indicates that there was majority agreeing with the sentiment with 50% agree and 30% strongly agree.

From the feedback, the implication is that there was need for the banks to be concerned with the population unreached by e banking.

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banking services or the bank hall congestion, majority indicated by agreed implying that there was change to ease access to banking services.

Rating of the Effects of E-Banking Factors on the Growth of Customer Base

The e-banking since its inception has gradually witnessed development milestones and adopted value addition services. Therefore, the study seeks to find out the rating of the effects on the supplementary services.

On the issues of adoption of master cards many respondents agree to this sentiment with 50% agreed indicating that it led to an increase in the customer base. The results on the introduction of the card system which is the debit and the credit majority of the respondents agreed connoting that it also played a major role in increasing the customer base. The introduction of the internet banking has the majority of the respondents agreed implying that there was increase in the customer base with this introduction.

Effect of Lack of Civic Education on E-Banking

This query seek to find out if there are issues that have not been sensitized on the side of the clients concerning the e-banking services and whether it would be taught through civic education.

The results indicated that there was majority in agreement with the sentiment as indicated which meant that any hindrance to e-banking was because of lack of enough civic education.

Effect of ATM Availability on Growth of Customer Base in Kenyan Banks

Following were the responses on effect of ATM availability on growth of customer base in Kenyan banks.

ATM Availability directly Enhances Banking

The availability of the ATM translates to improved convenience and proximity of the banking service. Thus, the research wished to establish whether availability of ATM would be linked or rather encouraged unbanked population to take up banking.

The results indicates that majority of the respondents as indicated by 70% agree while 30% disagree. This implies that there was direct enhancement of the banking through availability of ATM.

Extent which ATM Availability Enhance Growth of Customer Base

The research wished to establish the extent to which the availability of the ATM would boost the banking activities and led to growth of the customer base. The respondent feelings were as per figure

The results indicated that majority agree with the sentiment where 50% of them agree, 30% strongly agree, implying that there was a lot of influence on the ATM availability on the growth of banks.

Selected ATM Features Enhance Growth of Customer Base

Technology is adopted due to its socio economic benefits, therefore the researcher wished to assess the impact of main ATM features on the growth of the banks.

The result on the ATM reduces overall cost majority of the respondents connoting that there was reduced cost. On the sentiment that ATM are easy accessible and reliable majority of the respondents agreed therefore implying that the ATM were reliable and customer friendly. On the issue of ATM provide
transaction limit hence responsibility majority of agreed indicating that there was limit at which one could draw and therefore prevented one from misuse of his or her money. The results on the sentiment that ATM helps to save time majority of (45%) agreed implying that there was a lot of time saved from the use of ATM during transactions.

**Effect of E-banking on Banking Institutions in Kenya**

The following were the findings:

![Fig.15: Effect of E-banking on Banking Institutions in Kenya](image)

The results indicated that 50% majority agree to the sentiment, 30% strongly agree, 10% were neutral, 15% disagree while 5% strongly disagree. This implied that there was increased banking and customer base, hence the increase in the number of banking institutions.

**V. Summary of the Findings**

The influence of electronic fund transfers on growth of customer base for banks in Kenya, the deduced results indicates that, the ratings of the accessibility of the banking services since the introduction of the e-banking or electronic money transfer majority of the participants felt it is high. The rating of factors affecting e-banking, there was general disagreement; e-banking is less reliable with 53% disagreeing. It has many legal and security issues with 35%, disagreeing and it has high cost per services as indicated by 45% of the majority. On the other hand, there was agreement that there lacks enough security information with 40% of the respondents agreeing, possibility of high fraud is also agreed at 45% and the risk of data lose is also agreed by 30% majority. On the rating of whether there is any improved efficiency and accessibility to banking majority agreed. The degree of uptake of card technologies on growth of customer base for banks in Kenya results indicates the population who could be unreached by the e-banking as high.

Master card has lead to the increased customer base as indicated by 50% majority response agreeing. The introduction of the card system has also led to an increased customer base as there is 60% majority agreeing and the introduction of the internet banking has lead to the increased customer base as indicated by 40%. Lack of civic education is a factor hindering people from embracing e-banking. The ATM availability could directly enhance banking and increase the customer base.

**VI. Conclusions**

According to the results obtained in the study, electronic fund transfer has influenced the growth of the customer base for the banking institutions in Kenya, through enhancing banking services accessibility to a larger population in the country. The introduction of the card system has led to an increased customer base by eliminating or rather resolving most of the issues that usually hinder the spread of banking in the country. There is a lot of sensitization through all media channels on the security issues and therefore enabling people to be aware of possible fraud in the entire financial sector.

**VII. Recommendations**

The e-banking has big influence on the growth of customer base for the banking institutions in Kenya, through enhancing banking services accessibility to a larger population in the country. Therefore the bank should embrace e-banking as a key competitive advantage; they should enhance its impact by investing more on e-banking innovations to diversify its uses and provision of civic education to increase its penetration. The banks should heavily invest in innovative banking products and continuously make improvement to enhance its efficiency in operation. The banking sector should heavily invest in creating awareness through advertisement of banking products through public media. The challenges facing e-banking in the country is lack of civic education and the possibility of fraud. It is therefore essential for the banks to emphasize on the important of observing security measures on the part of an individual such as reporting immediately the loss of a card.

**References**


