

E-BANKING TECHNOLOGY AS A STRATEGIC TOOL FOR INCREASING A BANK'S COMPETITIVENESS AND CUSTOMER SATISFACTION: A CRITICAL REVIEW

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Abstract: E-banking has become an invaluable strategic business tool for commercial banks in emerging nations. Studies indicate that there is an increase of e-banking services, mobile money usage and awareness by most people from these countries. This awareness must be followed by a commercial bank's management and designing strategies and implementing them to attain its competitiveness. The aim of this review paper was to evaluate the role of e-Banking technology as a strategic tool for increasing banks' competitiveness and customer satisfaction in Kenya. The study reviewed empirical literature from various journals, articles, case studies, survey studies, and thesis and project reports. The paper sought to bring to full understanding the role of e-Banking technology as strategic tool for increasing a company's competitiveness and customer satisfaction. The objectives of this study were, to evaluate the extent to which e-banking technology as a strategic tool has increased commercial banks competitiveness and customer satisfaction and to ascertain the relationship between customer knowledge level of mobile usage and increase in e-banking services by commercial banks. This qualitative research intended to build one comprehensive model related to the antecedent and outcome variables of customer satisfaction with the various literature publications. While the study model adds knowledge to the current existing literature, it forms a basis for future studies. Research findings showed that most commercial banks in Kenya have switched to e-banking technology and are using it as a strategic tool to maintain their competitiveness. Other result showed that most people have access to mobile money usage, awareness and knowledge. Commercial banks can use e-banking as a competitive tool. They can utilize the benefit of customer mobile money awareness to increase their business competitiveness through e-marketing.

Keywords: e-Banking Technology, Strategic Tool, Company Competitiveness, Customer Satisfaction.

1. INTRODUCTION

In developing countries, about 2.5 billion people do not use e-banking services or even banking services, yet this population must make various money transactions like withdrawals, saving, transfers, billing or pay for merchant services. This population relies on informal financial services that are unsafe, inconvenient and expensive. Conventional financial institutions have over time been struggling to make their business models work to serve this low-income population. According to "Mobile Economy 2017" report by GSMA 2016, over two-thirds of the world's population had a mobile subscription and this is expected to double by 2020 especially with smart phone adoption. This can serve as a basis for extending the e-banking reach of financial services such as cash payments, withdrawals, savings, transfers and billing (Mobile Financial Service for the Unbanked 2014).

Bain (2015) explains that banks around the world have been working round the clock to improve their mobile money applications and optimization of their websites on the customer's smart-phones to increase e-banking reach. Leading banks are still learning how to take a mobile phone's first approach to re-emerging customer experiences in everything from buying a home to resolving an incident. By migrating customers to digital channels, banks have begun to reap significant cost savings as they drive out bad customer experiences in the branches and call centers. The benefit extends well beyond cost. Mobile channels are far more likely to delight and less likely to annoy than the branch or call center experiences leading to increased loyalty with higher customer relations, repeat purchase and referrals. A physical bank requires many tellers to serve customers yet with e-banking technology, many customers can be served quickly and in the comfort of their homes, wherever they are and at reduced costs. According to the U.S. Digital Practise (2017), Lance notes that the digital revolution presents an excellent opportunity for financial institutions to leverage innovative technology to improve products and services with the ultimate goal of better serving their customers. Other innovations like the Mobile App will provide for a wide geographical coverage.

In the digital arena, peer-to-peer payments and air time purchases account for the vast majority of mobile money transactions. Although e-banking services have been widely spread and accepted in many African and Asian countries, the populations in these regions prefer to still transact on cash basis to make utilities payments, merchant services and service provisions. This explains the limited liquidity in the e-banking system and fewer opportunities for mobile banking operators to generate more revenues. An effective way to broaden the e-banking reach has been for the banks to send timely messages to mobile money account holders, suggesting to them that they can transact using their mobile phone gadget. But such intrusive marketing may not be effective if the timing is off, the context is wrong or the message is irrelevant and not properly explained especially to non-techno savvy account holders. The recipient is likely to get irritated, thus damaging the reputation of mobile banking service, (University of West of England 2017). This is because customers have to share their financial data, such as spending habits and regular habits with authorized regulators like Kenya Revenue Authority when required to do so. To navigate this reality, banks must ensure their digital offering is fit for purpose, L. Levy (2018)

In Kenya, a survey indicates that there is a steady increase in e-banking such as Automated Teller Machines (ATM), Mobile and internet (online) banking, electronic bank transfer, direct payments and credit cards (CBK2008). ATM banking is one of the earliest and widely adopted retail banking service in Kenya Nyangosi et al (2009). According to the (CBK 2008) annual report, mobile banking adoption and usage has surpassed traditional banking methods. Currently there are 8 million users of mobile banking services compared to 40 million people who hold accounts in conventional financial institutions in Kenya (CBK2008). The increase is attributed to the ease of use and convenience. The high uptake of mobile banking is inconsistent with the theory of consumer choice and demand as conceptualized in Au and Kauffman (2008) in relation to mobile money payments. Based on their observations, customers can choose to adopt a particular banking technology such as M-banking, Kolodinsky and Hogarth (2001).

According to Munyoki and Ngugi (2011), continuous technology development, particularly information technology revolution of the last two decades of the 20th century has forced the banks to embrace mobile banking as a strategy for their sustainable growth in an expanded competitive environment. E-banking has made the financial transactions easier for users and has introduced a wide range of financial products and services. The internet has changed and enhanced the operations of many businesses.

One of the greatest challenges to the adoption of e-banking has been cultural reluctance to interfere with business electronically, reducing customer exposure to information technology. Such challenges remain a major obstacle limiting potential benefits of internet banking to both the banks and the customers Kausma, Lunkanen and Hiltunen (2007)

According to Beatrice C. (2017), several researches have revealed that the level of education has a very large impact on the acceptance of internet banking as the level improves the possibility of adopting online service increases. Level of education and literacy level have been identified as very significant barriers in diffusion of internet banking service, (Yuan et al 2010).

1.1 Research Objective:

The main objective of the study was to determine the role of e-banking technology as a strategic tool for enhancing a bank's competitiveness and customer satisfaction.

1.2 Specific Objectives for the study:

- i. To find out the extent to which e-banking technology as a strategic tool has increased commercial banks competitiveness and customer base in Kisii Town.
- ii. To ascertain the relationship between customer knowledge level in mobile usage and increase in e-banking services by commercial banks in Kenya.

1.3 Research Questions:

This study was guided by the following research questions

- i. To what extent has e-banking technology as a strategic tool increased commercial banks competitiveness and customer base in Kenya?
- ii. What is the relationship between customer knowledge in mobile usage and increase in e-banking services by commercial banks in Kenya?

1.4 Study model:

The study was guided by the theory of Tri-component attitude model from Brian T. B (2014). The model consists of three major components; a cognitive component, affective component and conative component. The first part of the Tri-component attitude model consists of person's cognitions that is the knowledge and perceptions that are acquired by a combination of direct experience with the attitude object and related information from various sources. This knowledge and resulting perceptions commonly take the form of beliefs that is, the consumer believes that the attitude object possesses various attributes and that specific behavior will lead to specific outcomes. In this case customer knowledge base leads to desire to use e-banking services

2. LITERATURE REVIEW

Lucy Nyang'ate Monyoncho (2015) conducted a study to establish the relationship between banking technologies and financial performance of commercial banks in Kenya. The specific research objectives were to assess the influence of ATMs on the financial performance of commercial banks in Kenya, to establish the effect of debit and credit cards on the financial performance of commercial banks in Kenya, to determine the effect of mobile banking on the financial performance of commercial banks in Kenya and to assess the effect of internet banking on the financial performance of commercial banks in Kenya. The study was based on Technology Acceptance model (TAM), Diffusion of innovations theory and Resource-based theory. The study population included all the 44 commercial banks licensed by Central Bank of Kenya. Secondary data for a five -year period was collected from financial statements of commercial banks in line with the specific variables of the study. Descriptive statistics (weighted means, standard deviation) were used to summarize the data using SPSS. Pearson moment correlation was conducted to establish the linear relationship between study variables. Regression analysis was conducted to establish the nature of the relationship. The study revealed that recent ATM innovations offer financial institutions the opportunity to transform the ATM from a cash dispenser to a customer relationship management tool, helping to enhance loyalty among all customers. Credit cards are being adopted by the banks to increase income, and to reduce credit and liquidity risks. Mobile banking is likely to have a major impact on the profitability of commercial banks as business operations get flawless and that internet banking offers the convenience of conducting most of the banking transactions at a time that suits the customer. The study concluded that adoption of E-Banking technologies holds a positive influence on the performance of commercial banks in Kenya. The study recommended that commercial banks should continue investing in ICT.

Stephanie Kadzo Kombe and Moses Kimani (2015) conducted a study on the effects of Internet Banking on the Financial Performance of Commercial Banks in Kenya, a case of Kenya Commercial Bank which was identified as a financial institution which is in the process of significant transformation. The study reports that despite this transformation, even though there's a richness of information on the nature and scope of internet banking, there is scarcity of evidence on the impact of internet banking activities among banks that have adopted it compared to those that have not done so. The research aimed at determining the effects of internet-banking on financial performance of financial institutions in Kenya. The study adopted a descriptive survey design. The target population comprised of 31 employees of KCB, Treasury

Square in Mombasa Kenya. Data collection was done through the use of questionnaires and analysed using a statistical tool. From the study, it was revealed that the impact of ICT adoption on the performance of banking sector mainly refers to time reductions and quality improvements, rather than cost reductions as reported by many authors.

Kinoti Faith Kagendo (2015) conducted a study on E-Banking Strategy and Performance of Commercial Banks in Kenya. The objective of this study was to determine the influence of E-banking strategy on performance of Commercial Banks in Kenya. The study adopted a descriptive research survey design. The population of the study composed of the 43 commercial banks in Kenya. Data for this study was collected using structured questionnaires. Descriptive statistics was used to analyse data which was presented using frequencies tables and percentage distribution tables and mean. Inferential statistics included correlation, regression analysis, ANOVA and Chi Square. The study found that e-banking infrastructure strategy had a strong positive relationship with banks performance, $r (0.577); p \leq (0.05)$. The relationship was statistically significant. Similarly, the study also found that e-banking efficiency strategy had a strong positive relationship with the banks performance, $r (0.759), p \leq (0.05)$. The relationship was statistically significant. The study also found that e-banking quality strategy had a weak positive relationship with banks performance, $r (0.397), p \leq (0.05)$. The study concluded that the relationship between e-banking infrastructure, e-banking efficiency strategies, and e-banking quality does enhance Kenya Commercial banks performance. The study recommended that banks should enhance mechanisms for more e-banking strategies that address the needs of clients in a timely and relevant manner. E-Banking strategies should be more than ICT infrastructures, efficiency and quality, but also client value addition through the e-banking strategies. Banks should also explore other strategies not covered in this study that can enhance banks performance.

Aslabugua Mary Ayuma (2011) conducted a study on e-commerce Strategy and Performance of Commercial Banks in Kenya. The study aimed at establishing the relationship between e-commerce strategy and performance of commercial banks in Kenya. The study also sought to establish the factors influencing the adoption of e-commerce strategy in commercial banks in Kenya. The study adopted a cross sectional design, and targeted commercial banks in Kenya under the umbrella of Kenya Institute of Bankers Association (KIB). Data analysis was done through percentage, frequency, mean, standard deviation, and correlation analysis. The results indicated that there was a strong relationship between the e-commerce strategy and performance of commercial banks in Kenya. The banks that have adopted e-commerce strategy were more efficient and more relevant to meeting the needs of the modern customers. The findings also indicated that the main factors which influenced the adoption of the e-commerce strategy in banks to a larger extent were customer support service and the payment systems.

Jackline Muchangi (2014) conducted a study on Strategic Responses of Banks Treasury Department towards a Competitive environment and its effect on profitability: A Case Study of Bank of Africa. The purpose of the study was to determine the effect of strategic responses of bank's treasury departments on the profitability in Bank of Africa. The following research questions were used to guide the study: i) What is the effect of employee empowerment strategy on the profitability of Bank of Africa? ii) To what extent does customer relationship management strategy affect the profitability of Bank of Africa? iii) What is the effect of Information Technology Deployment strategy on the profitability of Bank of Africa? The research was carried out through descriptive survey design. The population of the study was 1040 employees of the Bank of Africa. A sample size of 81 respondents was selected through convenience sampling. The study used primary data through questionnaires as the preferred data collection tool. The questionnaires had close ended questions only. This study used the quantitative method of data analysis which included inferential and descriptive statistics. The results were presented using tables and pie charts to give a clear picture of the research findings. One of the study objectives was to determine the effect of employee empowerment strategy on the profitability of Bank of Africa. Results indicated that majority of the respondents agreed with the statements that every new employee receives induction training, learning about the duties of the job was included in the induction training, on the job training was important and effective in improving employee performance, employees were satisfied with the compensation package offered in the bank, employees are satisfied on reward motivation granted by the bank and employees are satisfied on working environment and opportunities offered in the bank.

Christine Kamiri Kiboori (2017) conducted a study on, Electronic Banking Channels as a strategic Strategy for gaining Competitive advantage in Banking Services: A Case of Kenya Commercial Bank, United States International University – African Summer. This study focused on assessing electronic banking channels as a strategy for gaining competitive advantage in banking services in Kenya Commercial Bank (KCB). The specific objectives that guided the study included:

to highlight the key factors of e-banking as a competitive advantage tool at KCB, to determine the relationship between e-banking application and competitive advantage of KCB, to establish whether customer preferences influence electronic channels of banks, and to establish challenges and propose solutions to tap opportunities and solve the identified challenges at KCB.

The study used descriptive research design. The population for the study was all the staff working at KCB whose total number was 235. The sampling frame came from the official list of employees working at KCB in 2017. The study used stratified sampling technique. For the sample size, the study selected 70% of the total population to be the representative which brought the sample size to 165 respondents. Primary data was collected using a self-administered questionnaire. Completed questionnaires were analysed using Statistical Package for Social Science (SPSS). The study used statistical frequencies and percentages for analysis. For Likert questions, the study employed the use of means and standard deviations to show the strength and the degree in response differences. Inferential analysis was conducted which entailed Pearson correlation coefficient was used to examine the nature of relationships between study variables in terms of significant and insignificant factors. Multiple regression analysis was also used to show the strength of existing relationships between the study variables, and data was presented using tables and figures.

The study showed that e-banking has become a full-fledged delivery and distribution channel at KCB as a financial products and service. Internet banking is convenient and reduces bank queuing as well as reducing geographical barriers. E-banking at KCB contributes to varying models of cash withdrawals and cash management, and it provides customers with the interactivity that attracts them to utilize the functions of e-banking. KCB consumers understand the meaning and functionality of the security features of e-banking, even though they still have doubts about the trust ability of e-banking privacy policies. KCB assures its customers' security through provision of privacy statement and information about the security of the shopping mechanisms, and the use of encrypted data packets.

The company's technical direction and framework for technology is based on development service that is determined by its ICT strategy. ICT strategy supports the strategic objectives of the organization involving development of new and improved products and service capabilities. KCB's large investments in complex ICT systems have increased its efficiency in creating entry barriers in the market and it is also used to reduce the cost of doing business by reducing transaction costs to both suppliers and customers. E-banking has ensured that KCB policy makers are focused on the growing demand in ICT skills, that they are constantly taking corrective steps to prepare the required numbers and quality beforehand. The e-banking strategy at KCB also focuses on being the low-cost producer in the market. The bank emphasizes on the employment of highly experienced staff in online banking, development and refining of existing products and investment in organizational learning.

Electronic banking systems at KCB provide easy access to banking services, and thus leading to high levels of customer satisfaction and retention. E-banking at KCB has reduced the loan processing time as borrower's loan applications are viewed by the loan processing and loan approval authority simultaneously. Tele-banking (telephone banking) has allowed consumers at KCB to call the bank with instructions to pay certain bills or to transfer funds between accounts. ATM services at KCB have significantly increased productivity during banking hours and they are a cost-effective way of achieving higher productivity per period of time. Personal Computer Banking has allowed KCB customers to perform retail banking functions by providing its consumers with the convenience of conducting various banking transactions electronically using the Internet. Security of information is one of the biggest concerns of KCB's customers who make use of e-banking, since they face the security risks of having unauthorized access into their banking accounts. As a bank, KCB provides a comprehensive explanation of their policies to their clients. It was concluded that the bank has invested in a management information system which was easy to use and that the bank has invested in a management information system which has enabled the minimization of administrative costs. Results led to the conclusion that the core banks management information system was compatible with other systems and that the management information system was flexible enough to support the growth of the bank. In line with study results, it is recommended that employee empowerment be emphasized in the banks as it has an effect on the overall achievement of bank's profitability. Therefore, the management is urged to encourage sharing of potentially sensitive information on costs, quality, and productivity on financial performance with other employees.

The study recommends that banks should emphasize customer relationship by investing in customer relationship management system. Specifically, banks should invest in a robust Information technology system as this can help companies to create satisfied and loyal customers. It is recommended that investment in Information technology be emphasized in the banks as it has an effect on the overall achievement of competitive advantage. Therefore, the organization is urged to invest in innovative and technology-based products such as ATMs, Mobile banking, Internet banking and agency banking. In addition, banks should invest in management information systems which are easy to use and which facilitate minimization of administration and operational costs.

Abu Noman Sahel Rana (2013) conducted a study on how Technological implementation and online banking have increased customer service satisfaction but reduced costs in the Banking sector of Bangladesh. The study discussed a broad issue regarding technology driven banking. In addition, it focused on whether technology driven banking has increased customer service satisfaction and reduced costs. The banking sector in Bangladesh is not completely modernized, being a third world country fighting to improve its economy. However, major banks are trying to adopt technology driven banking services to improve efficiency in service. The study set four objectives based on the research topic and throughout the study the researcher tried to accomplish the objectives. The research question was also answered at the completion of research. The research also evaluated the situation of online-based banking in Bangladesh and what customers currently think about it. In literature review, a wide range of literature was analysed on customers satisfaction in the banking sector, technology driven banking in Bangladesh and costs of banking service. Major findings of literature showed that, the number of e-banking users is increasing. Different types of online based banking service were added such as Mobile banking, any branch banking. A large number of respondents said that, they think technology driven banking will be more efficient and effective for the banks and its customers. More than 50% people were satisfied by the current online banking service. To achieve the objectives of the research, the researcher designed the research-methodology in a logical way. The whole research process was shown in a diagram. The research was based on primary and secondary findings. For the collection of primary information, the researcher interviewed 150 respondents and secondary data was collected from previous journals, Bank's statements, Bangladesh Bank's report, Books and articles.

2.1 Research Gaps:

The research gap identified in the study by Stephanie Kadzo Kombe and Moses Kimani (2015), that despite the transformation and richness of information on the nature and scope of internet banking, there is scarcity of evidence on the impact of internet banking activities among banks that have adopted it compared to those that have not done so. Kinoti Faith Kagendo (2015) also notes that banks should explore other strategies not covered in this study that can enhance banks' performance.

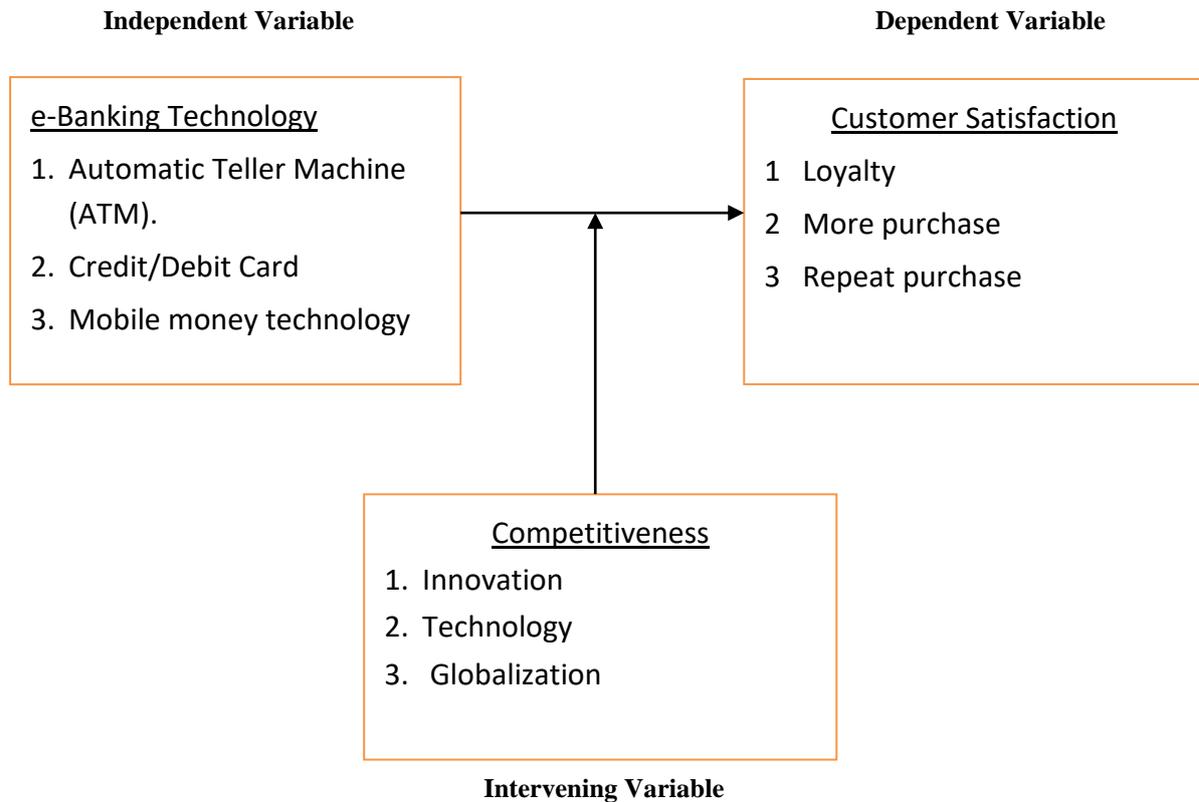
2.2 Study Paper Model:

The qualitative paper identified one model that explains the antecedent and outcome variables of customer satisfaction from the various literature publications which are explained in figure 1 below. The model has three constituent parts; the independent variables, the antecedent variables and intervening variables are explained below.

Independent Variables: The first section of the constituent part of the model constitutes the independent variables which include, Automatic Teller Machine (ATM), Credit/Debit Card and mobile money technology are the e-banking competitive tools that are used by commercial banks to quicken their services and enhance service quality. These e-banking technologies can allow for deposits and withdrawals at the customers' convenient time and place.

Antecedent Variables: Antecedents are variables that explain, in whole or in part the relationship between two other variables that are (or appear to be) correlated they include; Innovation, Technology and Globalization. The three components explain why banks need to embrace e-banking as competitive tools for new market creation, market sustainability and customer base.

Dependent Variables: The dependent variables explain the end results of the two variables the independent and the antecedent variables. Its components include Loyalty, More purchase and Repeat purchase. They are the aftermath of innovation, speed technology adoptions and market competitive competences.



Source: Researcher 2018

Fig 1: Conceptual Framework

3. METHODOLOGY

The study aimed to take the dimension of business to customer perspective in e-banking, therefore making it a business-to-customer (B2C) research Wright and Crimp (2000). Opinions of individual customer as an aid to decision makers in businesses are important. Qualitative interview and exploratory approaches were used, where top bank officials mid-level staffs who manage e-banking systems were interviewed and customers who use the facility were interviewed to give their perspective on the benefits of e-banking as opposed to the traditional analogue system. The purpose was to bring into fore how banks utilize and view e-banking Technology as Strategic tools for increasing the banks performance and customer satisfaction. More useful especially in a (B2C) perspective because they majorly assisted to clarify unclear issues and unveil new information that might have been omitted. More in-depth views were explored, including the confidential by use of the same method.

3.1 Collection Instruments:

Semi-structured questionnaires were employed where one-to-one interviews were conducted as the research method. They were found to be a useful form of data collection that can allow one to explore the perspectives and perceptions of various stakeholders Christine Daymon, Immy Holloway (2002). It was also found to be an appropriate method mainly due to its flexibility that allows respondents to converse.

4. DATA ANALYSIS

Data for the study was collected and analyzed using various relevant statistical instruments which were used to assess both online and offline e-banking users. For verification, structured questionnaires were used to collect data from top bank officials, mid-level and customers who have access to ATM cards and currently using the facility. Data collected was analyzed using (SPSS) software package where findings were raised and conclusions drawn.

4.1 Research Finding:**E-banking technology as a strategic response tool for a bank's competitiveness:**

Findings showed that, 60% of bank officials supported e-banking technology as a strategic response tool for supporting and enhancing commercial banks' competitive competence, and customer satisfaction. 30% partially supported it indicating that e-banking has taken away the benefits enjoyed when the system was not in place because it has minimized contact. Another 10% of the respondents were not sure whether e-banking technology supported commercial banks competitive advantage. Most of them cited customer saving culture and knowledge level as a major issue.

Customer knowledge level in mobile usage and increase in e-banking services by commercial banks:

Findings from customer data showed a positive response where most customers agreed to having access to mobile phones and being aware of mobile usage. All respondents supported the new technologies in e-banking. Convenience and real-time service was noted as it allows instant withdrawals and cash deposits any time, any day and anywhere where their agents are stationed. Interbank withdrawal using the facility was most supported. However, some respondents cited various issues related to e-banking technology. They include; machine failure, limited withdrawal per day, insufficient cash in the teller machine box and limited knowledge in the application for illiterate users and general fear of security threat in mobile banking.

5. CONCLUSION

From the above findings, it is apparent that the e-banking technology has greatly eased customer congestion in banks, improved banking service quality, and increased bank's competitiveness.

5.1 Recommendation:

The study however made the following recommendations; that banks should regularly service their ATM pay-points, increase maximum withdrawals per day to allow for withdrawals of more cash especially for businessmen who may need to make several daily transactions of varying amounts; that banks should to establish customer training service centers to assist those with low (IT) knowledge on how to utilize the facility and their benefits and to have one universal (ATM) card which can allow customers to withdraw money from a bank anytime and anywhere either, locally, regionally or internationally.

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