TOPIC: THE ROLE OF ELECTRONIC BANKING AND REVENUE GROWTH IN THE FINANCIAL INSTITUTIONS; A CASE OF EQUITY BANK

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DECLARATION

I, the undersigned declare that this is my original work and has not been submitted by any other institution or forum for any other award prior to this declaration.

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Declaration by supervisor

The research project is submitted for examination with the approval as a university supervisor.

Lecture:

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DEDICATION

This work is dedicated to my family for their love and encouragement all through the time spent on my course work and research project.

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LIST OF ABREVIATIONS AND ACRONYMS

E-banking Electronic Banking

ATM Automated Teller Machine

EFT Electronic Fund Transfer

E-Commerce Electronic Commerce

E-Payment Electronic Payment

TAM Technology Acceptance Model

IS Information System

TPB Theory of Planned Behaviour

IB Internet Banking

DEFINITION OF TERMS

Electronic banking: It is an electronic payment system which enables customer of a …………………… …a bank or any other financial institution to perform a number of …………………… ..of transactions via the website.

Financial institution: Is intermediary which receive money from a high supply units and provide it to a low supply unite for investment purpose

Financial market: It is a market in which people trade financial securities and assets

Smart card: A plastic card containing an inbuilt microprocessor used or …………………… .for electronic processes such as financial transactions and personal ………………. personal identification.

Stop payment: A request made to a financial institution to cancel a cheque ………………. cheque or payment that has not been processed yet.

Microprocessor: An integrated circuit that contains all the functions of a Aa

l ………………. A as central processing unit of a computer.

Growth The process causing something to increase or become larger or more advanced.

CHAPTER ONE

1.0 Introduction

Internet banking (e-banking) is an electronic payment system that enables the customers of a bank or financial institution to make financial or non-financial transaction via the internet.. A financial institution is a company other than a bank which executes on or proposes to carry on financial business and includes any other company which the minister may be by notice in the Gazette, revealed to be a financial institution. It is possible for a company to start as a financial institution and then later apply for this status. If the minister accepts, then it becomes a financial institution. Financial institutions take money from the public as deposits.

1.1 Background of the study

Banking in Kenya has come a long away from time of ledgers cards and other manual systems. Most banks today have electronics system to handle their daily voluminous task of information retrieval storage and processing. Four decades ago, customers saved their money with banks and received their financial services from banks, when the customers open account, they received passbook from the banks with which the account would be operated and when it is a current account, they received cheque books for the same purpose.

Banks of today operates in a complex and competitive environment characterised by advance technological environment, every bank in today’s business must embrace technology in order to remain competitive. Information Technology (ICT) is at the centre of this global change curve of the electronic Banking in Kenya and around the globe (Stevens; 2002) asserts that banks over the years have been using electronic system in delivering a wide range of value-added products and services. The owners and the managers of the banks in Kenya cannot therefore ignore information system because of the role they paly in the current banking system. The usage of internet for business activities has witnessed dramatic changes and experience rapid changes as a result of technological improvement, increased awareness and demands. Banks have traditionally been in the forefront of adapting technology to improve their products and services (Aladwani 2011).

Electronic banking is also termed as internet -banking or even sometimes it is known as virtual banking, which is an electronic payment system which enables customers of a bank or other financial institution to perform a range of financial transactions through the financial institution's website by searching it on the internet. The online banking system will typically connect to or be part of the core banking system operated by a bank and is in contrast to branch banking which was the traditional way of customers accessing banking

To get a financial institution's online banking facility, a customer with internet access will need to register with the institution for the service, and then set up a password and other qualifications for customer verification. The requirements for online banking are normally not the same as for telephone or mobile banking. Financial institutions now routinely allocate customers numbers, whether or not customers have indicated an intention to access their online banking facility. Customer numbers are normally not the same as account numbers, because a number of customer accounts can be linked to the one customer number. Technically, the customer number can be linked to any account with the financial institution that the customer controls, though the financial institution may limit the range of accounts that may be accessed to, say, cheque savings, loan, credit card and similar accounts.

The customer visits the financial institution's secure website, and enters the online banking facility using the customer number and credentials previously set up. The types of financial transactions which a customer may transact through online banking are determined by the financial institution, but usually includes obtaining account balances, a list of the recent transactions, electronic bill payments and funds transfers between customer's or another's accounts. Most banks also enable a customer to download copies of bank statements, which can be printed at the customer's premises (some banks charge a fee for mailing hard copies of bank statements). Some banks also enable customers to download transactions directly into the customer's accounting software. The facility may also enable the customer to order a cheque book, statements, report loss of credit cards, stop payment on a cheque, advice change of address and other routine actions.

Today, many banks are internet-only institutions. The internet emerged as a key competitive instrument for the future of financial services hence it came as no surprise when banks and brokers flocked to the web. According to Sayar and Wolfe(2007:123)the term Internet banking is used to describe the case where banks customers conduct banking transactions on the internet. The advent of financial innovation such as smart card, credit card, electronic transfers in the payment system and recently the matching of internet banking have transformed the world into a global lineage linked with electronic impulses. Electronic banking, also known as electronic fund transfer (EFT), uses computer and electronic technology in place of checks and other paper transactions. Efts is initiated through devices like cards or codes that let you, or those you authorize, access your account.

ATMs are electronic channels that let you bank almost virtually any time. To withdraw cash, make deposits, or transfer funds between accounts, you generally insert an ATM card and enter your PIN. Some financial institutions an ATM owners charge a fee, particularly if you don't have accounts with them or if your transactions take place at remote locations. Generally, ATMs must tell you they charge a fee and the amount on or at the terminal screen before you complete the transaction. Inquire with your institution and at ATMs so that you use it effectively. Personal Computer Banking lets you handle many banking transactions using your personal computer such as a laptop. For example, you may use your computer to request transfers between accounts and pay bills electronically.

Be careful with online and telephone transactions that may involve the use of your bank account information, rather than a check. A legitimate merchant that lets you use your bank account information to make a purchase or pay on an account should post information about the process on its website or explain the process on the phone. The merchant also should ask for your permission to electronically debit your bank account for the item you're buying or paying on. However, because online and telephone electronic debits don't occur face-to-face, be cautious enough about sharing your bank account information. Don't give out this information when you have no experience with the business, when you didn’t initiate the call, or when the business seems reluctant to discuss the process with you. Check your bank account regularly to be sure that the right amounts were transferred.

It is on the basis of this development in the banking industry that the study seek to empirically examine the impact of electronic banking on the growth of the banks in Kenya,

1.1.1 Electronic Banking

E- Banking refers to arrangement where the bank customers can perform various transactions over the internet. E banking promotes paperless or cashless transactions. It’s comes with a number of rights, responsibility and fess as well. E- Banking allows the bank’s customers to perm various activities through the internet without going to the banking halls. E-banking makes it possible for bank clients to monitor their own accounts from banks or from other places. Banking using the internet is regarded as a complementary channel used in service delivery. Based on ATM being used , phone banking, PC banking that is building blocks of initial electronic finance , the improved usage and diffusion of online banking has introduced a new channel of distribution to retail banking .Online banking has increased acceptance in the entire world as a new channel of delivery to perform a number of banking transactions. Additionally, online banking provides an avenue for bank’s clients to carry out transactions within their comfort ( Yaklef 2001). E-banking started in 1970’s but in Kenya, in E-banking date back to 1990’s

Revolution in information technology has affected the way banking industry conducts their business globally. The invention of E-banking has changed and redesigned the practice of banking. Technology at the moment is considered as one of the major contributor to the success of a firm as well as other core competencies. E –banking has led to efficiency, increases revenue to the banks and minimize the cost of operation and administration ( Yaklef 2001) .

1.1.2 Revenue growth:

Revenue growth is the increase in sale by organization from one accounting period to the other. The purpose of the research study was to measure the impact of electronic banking on the revenue growth at Equity Bank limited in Kenya. Revenue growth can be attributed to a number of factors which may include but not limited to the following;

i) good marketing strategy.

Equity embarked on wide range of marketing activities such as product offering diversification, branch and regional expansion, relationship marketing, financing, customer-care, innovation, and information technology strategies. Equity Bank is a very adaptive bank with a versatile reactionary mechanism to exploit any emerging gaps in the banking industry. The bank has been able to create new markets in uncontested areas like hair salons, millet growing (for brewing) and dairy industry, so its competition strategies are heavily bent on using “blue ocean strategies”. Equity Bank has managed to build competitive advantages that can be exploited to sustain and further its growth. Historically Equity Bank strategy was focused on the low end market segment however the bank has created now infrastructure and organizational structures and has included SME’s and corporate banking in its evolving strategy.

ii) Information Technology:

Information technology is the use of computers to create, process, store, retrieve, and exchange all kinds of electronic data and information. The use of information technology in banks has led to efficiency in terms of service delivery, increase in customer’s base which has resulted in incensed revenue and reduction in operation cost.

iii) Management.

Equity Bank has one of the best management team. Since the CEO Mwangi took over the helm of Equity bank ib 1922 to date. equity has remained one of the top leading banks in terms of customer’s numbers, revenue growth and innovation.

1.1.3 Equity bank

Historically Equity Bank was founded as Equity Building Society (EBS) in October 1984 and was originally a provider of mortgage financing for the majority of customers who fell into the low income population. Having been declared technically insolvent in 1993, Equity’s transformation into a rapidly growing microfinance and then a commercial bank is widely considered to be an inspirational success story. Equity Bank Limited (The “Bank”) is incorporated, registered under the Kenyan Companies Act Cap 486 and domiciled in Kenya and is licensed under the Kenya Banking Act (Chapter 488), and continues to offer retail banking, microfinance and related services.  The Bank has subsidiaries in Kenya, Uganda, South Sudan, Rwanda and Tanzania.  Its shares are listed in the Nairobi Securities Exchange and Uganda Securities Exchange.

In 2004The central Bank of Kenya (CBK) converted Equity Bank into a commercial bank thereby becoming Equity bank Kenya Limited. This was a result of its increased business performance. In 2010 Equity Bank established the Equity Group Foundation. This innovation and creative vehicle has fully transformed the concept of philanthropy and corporate social responsibility. Bank provides the infrastructure of delivery, hence reducing the operational costs for the Foundation and increasing the rate of return on any social investment. Currently, Equity Bank has more than 9 million customers making it the largest bank in terms of customer base in Africa and having nearly half of bank accounts in Kenya.

Equity Bank retains a passionate commitment to empowering its clients to transform their lives and livelihoods. Through a business model that is anchored in access, convenience and flexibility, the Bank has evolved to become an all-inclusive financial services provider with a growing pan-African footprint

My choice of equity bank was prompted by the fact that Equity has been in for front in implantation of Electronic banking in Kenya. The research finding will therefore provide more vast information that can be adopted by the financial institutions in improving on their services and products

**1.2 Statement of problem**

Internet banking is the latest development that has added a new dimension to banking transactions by making it more convenient and also contributes to the elimination of long wearisome queues in banking halls. Electronic banking has demonstrated the velocity of its growth is incredibly fast and efficient. It has allowed individuals including companies to perform their banking businesses from their homes or offices in a very cost-effective way. Studies have shown that with this technology, it has become possible for both the banks and the customers to have an immediate insight about the status and operations of their accounts.

This study focused on the revenue growth in the financial institutions that electronic banking has brought in place. According to Equity bank of Kenya there is delay in payment of cheques between banks; time wasted in banks as people line in queue waiting for service, errors as a result of manual work and fraud related cases was common. As a result some clients complain of the above, it is upon this that is why the researcher would like to examine the contribution of E- banking towards banking on the revenue in the banking Institutions because researcher believes that adoption of electronic banking will ease banking transactions and attract customers basing on experience from other developed countries.

The utilization of electronic communication in finance, in fact, goes back much further than the 1970s.As early as 1918, the Fedwire payment system made use of the electronic settlements of payments among banks over the telegraph (Mishkin et al.2002).this electronic payment system have gradually increased through time. Nowadays huge payments among banks are being made electronically around the globe.

The results of e-finance technologies on financial services are broad. Online banking started in the mid-1990s and is increasingly becoming more beneficial until to date.

**1.3 Objectives of the Study**

**1.3.1 General Objectives**

The aim of this study is to examine the role of electronic banking on the growth of financial institutions.

**1.3.2 Specific Objectives**

1. To establish the role of internet banking towards revenue growth in the financial institutions
2. To establish the role of Automated Teller machine (ATM)towards revenue growth in the financial institutions
3. To examine the role of tele banking towards revenue growth in the financial institutions
4. To examine the role of smart cards towards revenue growth in the financial institutions.

**1.4 Research questions**

1. What is the role of internet banking towards revenue growth of financial institutions?
2. What is the role of Automated Teller machine (ATM) towards revenue growth of financial institutions?
3. What is the role of tele banking towards revenue growth of financial institutions?
4. What is the role of smart cards towards revenue growth of financial institutions?

**1.5 Scope of the Study**

This research sought to examine the role of E- banking on the growth of financial institution of Equity bank, with a focus on selected branches within Nairobi, specifically Equity Upper-Hill (Head office),Equity Bank Knut house, Equity Bank Four-ways, Equity Bank Tea Room, Equity Bank Westland’s and Equity Bank Moi avenue. This involved collecting information from the management and banking staffs on the digital business strategies pursued by Equity Bank in Kenya.

**1.6 Significance of the Study**

**1.6.1 Researcher/ Academician**

This study is of importance to the researcher as the study is expected to point out areas that need further research. The study will also contribute to the growth of literature on influence of digital strategy on banking

**1.6.2 Bank:**

The research report will pin point the exiting gaps and how to help the banks

to improve on them when it comes to investing in electronic banking. The research report

will help the bank to improve on their electronic banking services and help in giving them a competitive advantage and improving the banking sector in Kenya.

**1.6.3 Management:**

To the management in the financial institution, this study will inform them on the financial effect of electronic banking on the performance and development of their institutions. Through the findings of this study, the management will be able to strategize on how to realize maximum benefits from electronic banking.

**1.6.4 Bank Customers:**

The adoption of digital business strategy by banks has consequences to consumers. Consumers will get the opportunity to interact with banks both at inquisitive level and for communication purposes. The convenience that comes with the adoption of digital business strategy would greatly impact positively on the relationship between customers and banks.

**1.6.5 Policy Makers:**

Launching digital business strategy requires robust security capability, infrastructure, and appropriate capacity. As part of the vision 2030, the government of Kenya is committed to the digital agenda in public and private sectors. The study would highlight ways in which digital platforms can be enhanced further to function at their optimum levels. Construction of physical infrastructures like fiber optics for instance would easily facilitate digitization of private and public sectors

**1.7 Research Hypothesis:**

Research hypothesis is conjectural statement of relationship between two or more variable and which must be measurable ( Keliger 1973:431-485)

A hypothesis is a prediction or a tentative statement about a problem that is under investigation. Such statement stands the chance to being accepted or rejected after carrying out ac6tivities involved in the research; it is a set of assumption that is accepted provisionally as a basis of investigations.

A hypothesis is very necessary because it makes available to a study sense of direction and purpose. It narrows the scope within which the researcher’s thinking with respect to the previous work and the work that follows. The fact the researcher intend to investigate is the impact of electronic banking on the revenue growth in the banking industry.

Stating the hypothesis we have:

1. H1: there is significant relationship between e-banking and growth in revenue in the banking industry.

2. Ho: there is no significant relationship between e-banking and growth in revenue in the banking industry.

**1.8 Justification of the study**

The study aimed to knowing the relationship between electronic banking and financial institutions which justifies the relevance of the study that provides guidance in the development of financial institutions through online banking and other electronic banking facilities so as to access the services in an efficient manner.

Consequently, the issue of electronic banking is to be addressed in a detailed manner. The study therefore expected to provide information that shows the role of electronic banking on the revenue growth of financial institutions and how they improved their performance, boost growth and development through the use of electronic banking.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter attempts to explain the related literature on electronic banking and the role it play in revenue growth in the financial institutions. It also brings forward some insight from different authors in the field of electronic banking. In this world, we cannot think about the success of a banking system without information technology and communication. It has enlarged the role of banking sector in the economy. The financial transactions and payment can now be processed quickly and easily without having any difficulty.

The banks with the latest technology and techniques are more successful in the competitive financial market. They have been able to generate more and more business resulting in their greater profitability. These services have not only improved the satisfaction level of customers, but also helped in reduction of processing time and transaction time. The productivity of banks in terms of time saving and attending the customers at the branches has also improved. The review of following studies throws light upon different aspects of e-banking. To know the impact of e-banking on various aspects, the research studies undertaken for the review have been classified into two categories, i.e., studies related to banks, and studies related to technology.

2.1.1 Studies Related to Commercial Banks:

Dannenberg and Kellner (1998), in their study, overviewed the opportunities for effective utilization of the Internet with regard to the banking industry. The authors evaluated that appropriate application of today’s cutting edge technology could ensure the success of banks in the competitive market. They evaluated the services of banks via internet as websites provide advanced line of products and services at low price. The authors analyzed that transactions via internet reduce the risk of data loss to customers, chance to cut down expenses, higher flexibility for bank employees, re-shaping the 43 banks’ image into an innovative and technologically leading institutes, etc. The researchers found that banks could move one step further by entering into a strategic alliance with internet service provider. So, the bank of tomorrow stands to be attainable with today’s technology

Wenninger (2000) evaluated the emerging role of electronic commerce in banks. E-commerce had created new form of competition and forced banks to make choices about the services they offer, the size of their branch network and extent of their support to inter- bank payments network. The main objective of the study was to understand the changes that had taken place with the introduction of electronic commerce. Development of e-banking products such as electronic billing, establishing internet portals, electronic checks, ATM, etc. had provided additional services to customers’. The author also emphasized upon the strategic and operation of electronic banking.

Aki (2002) highlighted the impact of technology in banking sector. New technologies cannot replace the branch network but these can support old methods of delivering the services. The author evaluated the structural change in Finnish banking sector from the period 1993 to 2023 which showed that 42 per cent of households have internet connection with banks and 90 per cent have mobile banking services. ICT has had both inter-sectoral and intra-sectoral impact. The author concluded that main goals of management of technology were to improve customer fulfillment, reduce cost and develop new methods to collect and analyze the customer information.

Joseph and Stone (2003), in their paper, explored that customer friendly technology such as ATM, internet banking and telephone banking has been used by the banks to reduce the cost of providing services, and to increase the customer loyalty and market share. Technology plays an important role in delivery of banking service. The study highlighted that access, location, security and ease of use of ATM machines appears to be the most important component for banking customers for the adoption of e-banking. However, banks should concentrate more on providing speedy and efficient service to the customers. Further, bank managers should conduct periodic marketing studies to understand the level of technological services by the customers so that adequate service could be delivered at the right time. Rational risks which arise in banking sector. These could be minimized with a cost efficient electronic process.

Singh and Malhotra (2007) made an attempt to discover factors affecting a bank’s decision to adopt internet banking in India. The study was based on 88 banks comprising of public, private and foreign banks covering financial years from 1997 to 2005. The results of the study showed that large banks having high fixed expenses, high income and expenditure tend to use more technology. Banks had used internet banking as corresponding channel to existing branch network. However, the private and foreign banks were quick adopter to internet banking than public sector banks. The adoption of this innovation by other banks increases the likelihood that a decision to adapt will be made as it has increased the profitability and productivity of banks.

2.1.2 Studies Related to Technology

Aggarwal (2003), in his paper, looked for such avenues where e-banking could play important role in e-democracy. The author discussed two case studies on the implementation of e-banking in digital democracy. One was farmer service and other was e-seva. While applying e-banking in e-democracy, services become more secure, efficient, transparent and fast. It becomes a win-win situation for all, for banks its low cost, for government its better service, for business its fast and secure, and for citizens its transparent and efficient. The author evaluated that e-banking could be used for successful e-banking for online bill payment, online brokerage, online account management, anywhere banking, etc. The author concluded that e-banking services provide one stop service and informational unit that provides great advantage to banks, customers, employers and government.

Ashiya (2006) evaluated developments made by electronic payments. The author evaluated different type of e-payment used across the globe. The main objective of the study was to find the current offerings and development provided by electronic payments. The author evaluated different modes of e-payment such as plastic cards, debit cards, credit cards, smart cards, electronic cheques etc. These electronic ways provided an excellent instrument for payment system. The author analyzed that security was the main concern among electronic payments. However, e-payment this modern technology could be used as a tool for the enhancement of customer loyalty and business of banks as it had reduced the risk & cost and could increase the customer loyalty

Raja et al. (2008) evaluated the result of e-payment system on the business opportunities. They identified that due to the growth of internet users, various electronic payment mechanisms had been developed to cater the variety of applicants. The researchers classified the e-payments into three main groups, namely, cash like systems, check like systems, and hybrid systems which were further classified into credit cards, debit cards and electronic cheques. They identified three main issues related to e payment that were security issues, low interest among businessmen, and heavy dependence on traditional payment methods. They also examined that there were technical and cultural problems which hinder the path of e-payments. However, to make e-payments more effective, security threats should be reduced; and people should be realized that traditional payment methods were more time consuming than electronic payment methods. They should also be realized that plastic card payments were more convenient, easier and more secure than cash or cheques.

2.2 Theories Relating to the Study

Electronic banking has long been identified to play an important role in economic development on the basis of their ability to create liquidity in the economy through financial intermediation between savers and borrowers. It also offers financial services and products that speed up settlement of transactions and in the process reduce cash intensity in the financial system, encourage banking culture, and catalyses economic growth (Al-Gahtani, 2001).

However, for the successful functioning of the financial system, the payment systems must be safe and efficient; otherwise they can be a channel for the transmission of disturbances from one part of the economy or financial system to others. This is why central banks have been active in promoting sound and efficient payments system and in seeking the means to reduce risks associated with the system (Al-Gahtani, 2001)

Nairobi historically run a cash-driven economy particularly in the consumer sector, however the system has witnessed improvements over the years, and particular in recent times has moved from its rudimentary level of the early years of banking business to the current state of experience similar to other economies at the same level of development.

This section talks about the theories that support the relationship between electronic banking and development of financial institutions, these theories are technology acceptance model and diffusion of innovation theory.

2.2.1 Technology Acceptance Model (TAM)

It is an information system theory that models how users come to accept and use technology. First introduced by Davis, Bagozzi and Warshaw, the technology acceptance model (TAM) was soon after tested by Davis. Davis’ its aim was to explain the effect of how users’ recognition of system characteristics influence acceptance of information systems (IS) applications.

TAM has roots and was adapted from the Theory of Reasoned Action (TRA) to the field of IS. TAM suggests, ‘Intention to use IS’ is determined by ‘Perceived Usefulness’ of the system which influences ‘Attitude.’ ‘Perceived usefulness’ is suggested to be directly affected by ‘perceived ease of use.’ ‘Attitude’ has been defined by Davis [72, p. 476] as “the degree of assessment affect that an individual associates with using the goal system in his/her job.” In discussing TAM, Davis clarified that an individual’s attitude is a kind of perceived behavioral control, where a high degree of perceived control will affect behavior intention, resulting actual behavior.

Information systems (IS) implementation is costly and has a comparatively low success rate. Since the seventies, IS research has caused to a more suitable understanding of this process and its results. The early efforts focused on the identification of factors that facilitated IS use. This produced a long list of items that proved to be of little practical value. It became clear that, for practical reasons, the factors had to be classified into a model in a way that would facilitate analysis of IS use.

In 1985, Fred Davis suggested the technology acceptance model (TAM), It examines the mediating role of perceived ease of use and perceived usefulness in their relation between systems characteristics (external variables) and the likelihood of system use (an indicator of system success).

More recently, Davis proposed a new version of his model: TAM2. It includes subjective norms, and was tested with longitudinal research designs. Overall the two explain about 40% of system’s use. Analysis of empirical research using TAM shows that results are not totally consistent or clear. This suggests that significant factors are not included in the models.

We conclude that TAM is a useful model, but has to be mixed into a broader one which would include variables related to both human and social change processes, and to the adoption of the innovation model.

People of Nairobi accepted gladly to use technology in their daily operations of using banking facilities on the internet there by facilitating the use of electronic banking in the region.

2.3.2 Diffusion of Innovation Theory

Diffusion research studies how ideas are spread among groups of people.  Diffusion goes beyond the two-step flow theory, revolving on the conditions that increase or decrease the likelihood that an innovation, a new idea, product or practice, will be adopted by members of a given culture.  In multi-step diffusion, the opinion leader still exerts a large impact on the behavior of individuals, called adopters, but there are also other intermediaries between the media and the audience's decision-making.  One intermediary is the change agent, someone who encourages an opinion leader to adopt or reject an innovation (Infante, Rancer, & Womack, 1997).

Changes are not adopted by all individuals in a social system at the same time.  Instead, they tend to adopt in a time sequence, and can be grouped into adopter categories based upon how long it takes for them to begin using the new idea.  Practically speaking, it's very important for a change agent to be able to pin point which category certain individuals belong to, since the short-term goal of most change agents is to facilitate the adoption of an innovation.  Adoption of a new idea is brought about by human interaction through interpersonal networks.  If the initial adopter of an innovation talks about it with two members of a given social system, and these two become adopters who pass the innovation along to two peers, and so on, the resulting distribution follows a binomial expansion.  Expect adopter distributions to follow a bell-shaped curve over time (Rogers, 1971).

The theory taken in consideration is the Innovation Diffusion Theory (IDT) which spells out 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, trialability and observability Rogers (1995). Researchers as and Tan and Teo (2000), Gerrard and Cunningham (2003) and Md Nor and Pearson (2008) had tested the theory on the e-banking adoption. The nominalized factors are complexity, trainability and observability.

2.3 Empirical studies

Empirical Studies are based on research that can be accurately measured by "quantity". They are based on facts discovered through a systematic observation or experiment. Also, responses should be generalized based on the analysis of all the statistics observed in the study.

2.4 Literature Review

2.4.1 Internet Banking

Most of the applications mentioned involved the use of internet in the website; it involves using the net to exploit new opportunities by transforming products and markets and business processes (Fox and Beier, 2006). E-banking also means establishing a new relationship with customers, regulatory authorities’, suppliers and banking partners with digital age tools, for example, it requires all understanding.

Internet banking involves carrying out banking transactions such as account enquiry printing of statement of account; funds transfer payments for goods and services, etc. on the internet (World Wide Web) using electronic tools such as the computer without visiting the banking hall. E- Commerce is greatly made possible by internet banking and is mostly used to effect payment.

Internet banking also uses the electronic card infrastructure for carrying out payment instructions and for final settlement of goods and service over the internet between the merchant and the customer, currently the most common internet payments are for consumer bills and purchase of air ticket through the websites of the merchants (Littler, 2006).

E-banking is essentially about banks using new age methods and tools to expand into new banking markets and grow. Creating a corporate online presence for your bank should be more than just buildings a website. It should be about building a web business for your bank, to do this fruitfully the people in charge, i.e. the CEOs not just IT directors and managers must have a deep knowledge of what E-banking culture demands (Clive, 2007).

Internet Banking lets you handle many banking transactions through your personal computer. For example, you may use your computer to view your account balance, request transfers between accounts, and pay bills electronically. Internet banking system and method in which a personal computer is connected by a network service provider directly to a host computer system of a bank such that customer service demands can be processed automatically without need for intervention by customer service representatives.

The system is capable of differentiating between those customer service needs which are capable of automated fulfillment and those requests which require handling by a customer service representative. The system is mixed with the host computer system of the bank so that the remote banking customer can access other automated services of the bank. The method of the invention includes the steps of keying in a customer banking request from among a menu of banking requests at a remote personnel computer; transferring the banking requests to a host computer over a network; receiving the request at the host computer; identifying the type of customer banking request received; automatic logging of the service request, comparing the received request to a stored table of request types, each of the request types having an attribute to indicate whether the request type is capable of being fulfilled by a customer service representative or by an automated system.

By putting into action a comprehensive Internet banking solution from a highly accredited provider, financial institutions of all sizes can achieve a number of different strategic goals. An optimal online banking solution can assist institutions reduce operational costs by increasing customer usage of self-service links for account management, new account opening, fraud detection and problem resolution.

2.4.2 Automated Teller Machines (ATM)

An automated teller machine or automatic teller machine(ATM) is an electronic computerized telecommunications instrument that allows a financial institution's customers to directly use a secure method of communication to get their bank accounts, order or make cash withdrawals (or cash advances using a credit card) and check their account balances without the need for a human bank teller. Many ATMs also allow people to deposit cash or cheques, transfer money between their bank accounts, top up their mobile phones' pre-paid accounts or even buy postage stamps.

On most modern ATMs, the customer identifies him or herself by inserting a plastic card with a magnetic stripe or a plastic smartcard with a chip that contains his or her account number. The customer then confirms their identity by entering a passcode, often referred to as a PIN (Personal Identification Number) of four or more digits. Upon successful entry of the PIN, the customer may perform a transaction. The growth of ATM’s has rapidly grown in the public places around the globe. The number of ATM locations offered by a financial institution can represent a significant competitive asset, regardless of declining overall use. Free access to ATMs becomes an important tool for financial institutions in attracting and retaining customers. Financial institutions will develop strategies to minimize their investment in ATMs, such as reducing the number of machines and offering customers a functional, but generic user experience.

2.4.3 Tele Banking

Telephone banking is a service provided by an institution, which allow customers to carry out a range of transactions over the telephone, without the need to visit a bank branch or automated teller machine.

Performing several of banking related services including financial transactions from the convenience of customers chosen place anywhere across the globe and any time of date and night has now been made possible by introducing on-line Telebanking services. By dialing the given Telebanking number through a landline or a mobile from anywhere, the customer gets the following facilities Automatic balance voice out for the default account. Balance inquiry and transaction inquiry in all Inquiry of all term deposit account Statement of account by Fax, e-mail or ordinary mail. Cheque book request Stop payment which is on-line and instantaneous Transfer of funds with CBS which is automatic and instantaneous Utility Bill Payments Renewal of term deposit which is automatic and instantaneous Voice out of last five transactions.

Financial institutions in Kenya cannot ignore information systems because they play a significant role in their operations because customers are conscious of technological advancements and demand higher quality services.

2.4.4 Smart Card

A smart card usually contains an embedded 8-bit microprocessor (a kind of computer chip). The microprocessor is under a contact pad on one side of the card. Think of the microprocessor as replacing the usual magnetic stripe current on a credit card or debit card. The microprocessor on the smart card is there for surveillance. The host computer and card reader actually "talk" to the microprocessor. The microprocessor enforces entry to the data on the card. The chips in these cards are capable of many kinds of transactions. For example, a person could make purchases from their credit account, debit account or from a stored account value that's reload. Advantage to having a smart card is their use in the banking industry (and many other sectors). These cards give the holder freedom to carry large sums of money around without feeling anxious about having the money stolen. In this regard, they are also safe because the cards can be easily replaced, and the person would have to know the pin number to access its stored value. This takes care of the problem with cash; once it is stolen it is nearly impossible to trace and recover it.

The enhanced memory and processing capacity of the smart card is many times that of traditional magnetic-stripe cards and can assist several different applications on a single card. It can also hold identification information, which means no more shuffling through cards in the wallet to find the right one -- the Smart Card will be the only one required. Smart cards can also be used

With a smart card reader attachment to a personal computer to verify a user. Because of this many users become attracted to electronic banking thereby leading to the development of financial institution.

2.5 Conceptual Framework

Independent variables Dependent variable

Internet banking

ATM

Tele banking

Smart cards

Customer’s growth

Revenue growth

The dependent variable which is development of financial institution is influenced by internet banking, ATM, tele banking, and smart cards which are dependent variables. When all the independent factors are well considered then the financial institution will be well managed and the institution will bring about many developments.

2.6 Research Gap

The study failed to measure the financial impact of adoption and use of the electronic banking in the banking industry. Future research is, therefore, recommended to address the above stated limitation.

2.7 Chapter Smoiry

This chapter contains the literature review that is the studies related to the banks and technology, theories relating to the study, conceptual framework, review of variables and the research