FACTORS AFFECTING ADOPTION OF INTERNET BANKING SERVICES IN
KENYA POST OFFICE SAVINGS BANK IN NAIROBI KENYA

MERCY WAHU WAHOME

D53/KPU/14637/2009

A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS IN
PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE
DEGREE OF MASTER IN BUSINESS ADMINISTRATION OF KENYATTA
UNIVERSITY

APRIL, 2012
DECLARATION

I hereby declare that this research project is my original work and has never been presented for examination in any other university or institution.

Mercy W. Wahome

D53/KPU/14637/2009

This project has been submitted for examination with our approval as the student’s Supervisors

M/S Ann Muchemi

Business Administration

School of Business

Dr. Muathe SMA (PhD)

Business Administration

School of Business

Kenyatta University

For and on behalf of Kenyatta University

Mr. Shadrack Bett

Chairman

Business Administration Department

School of Business

Kenyatta University
DEDICATION

I dedicate this work to my family and friends for their motivation and encouragement throughout my studies. Their love, care, concern, support, encouragement and enthusiasm inspired me to achieve this goal.
ACKNOWLEDGEMENT

I appreciate my supervisors namely; M/S Ann Muchemi, Dr. Muathe and Mr. Shadrack bett in their encouragement and patience in reading, correcting, re-reading and refining this work to this end. Also I wish to acknowledge the assistance, support and encouragement from my colleagues to the completion of this study. Without them this dissertation would not have been successful. Finally, I thank God for good health and for bringing me this far.
# TABLE OF CONTENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Declaration</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iii</td>
</tr>
<tr>
<td>Acknowledgement</td>
<td>iv</td>
</tr>
<tr>
<td>Table of Content</td>
<td>v</td>
</tr>
<tr>
<td>List of Tables</td>
<td>viii</td>
</tr>
<tr>
<td>List of Figure</td>
<td>ix</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>x</td>
</tr>
<tr>
<td>Abbreviations and Acronyms</td>
<td>xi</td>
</tr>
<tr>
<td>Abstract</td>
<td>xii</td>
</tr>
</tbody>
</table>

## CHAPTER ONE: INTRODUCTION

1.1 Background of the Study .................................................. 1
  1.1.1 The Kenyan Banking Industry ........................................ 3
  1.1.2 Kenya Post Office Savings Bank .................................... 5
1.2 Statement of the Problem ................................................................ 6
1.3 Research Objectives ........................................................................ 8
  1.3.1 General Objective ........................................................... 8
  1.3.2 Specific Objectives .......................................................... 8
1.4 Research Question ........................................................................ 9
1.5 Significance of the Study ............................................................ 9
  1.5.1 Post Bank ........................................................................ 9
  1.5.2 Other Banks ..................................................................... 10
  1.5.3 Researchers and academicians ........................................... 10
1.6 Scope of the Study ......................................................................... 10
1.7 Limitations of the Study .................................................................. 11
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction ........................................................................................................... 12

2.2 Theoretical Review ............................................................................................... 12

  2.2.1 Innovation Diffusion Theory ............................................................................ 12

  2.2.2 The Decomposed Theory of Planned Behavior ................................................ 13

  2.2.3 Theory of Planned Behavior (TPB) ................................................................. 13

  2.2.4 TAM beliefs – perceived ease of use and perceived usefulness ...................... 14

  2.2.5 Conceptual Trust-Risk Model in Internet Banking Services (IBS) .................... 15

  2.2.6 Banks’ Websites .............................................................................................. 17

2.3 The Concept of Internet Banking ............................................................................ 18

  2.3.1 Informational Internet Banking ....................................................................... 20

  2.3.2 Communicative Internet Banking .................................................................... 20

  2.3.3 Transactional Internet Banking ....................................................................... 21

2.4 Empirical Review .................................................................................................. 21

  2.4.1 Electronic Banking ......................................................................................... 24

  2.4.2 Internet Banking Services .............................................................................. 24

  2.4.3 Determinants of Internet Banking Adoption .................................................. 27

  2.4.4 Other Limitations of Internet Banking ........................................................... 33

2.5 Summary and Research Gaps .............................................................................. 34

2.6 Conceptual Framework ......................................................................................... 36

CHAPTER THREE: RESEARCH METHODOLOGY ......................................................... 38

3.1 Introduction ........................................................................................................... 38

3.2 Research Design .................................................................................................... 38

3.3 Target Population of Study ................................................................................... 38
3.4 Sampling Design and Procedure ................................................................. 39
3.5 Data Collection Instrument ........................................................................... 39
3.6 Data Analysis .................................................................................................. 40
  3.6.1 Data Presentation ....................................................................................... 40
  3.6.2 Ethical Considerations .............................................................................. 40

CHAPTER FOUR: RESEARCH FINDINGS ............................................................... 41
  4.1 Introduction .................................................................................................... 41
  4.2 The Response Rate ........................................................................................ 41
  4.3 General Information ...................................................................................... 42
  4.3 Factors Influencing Adoption of Internet Banking ........................................... 46
  4.4 Challenges Experienced in the Adoption of Internet Banking ......................... 53
  4.5 Strategic Measures used in Implementation of Internet Banking ...................... 57

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS ........ 63
  5.1 Introduction .................................................................................................... 63
  5.2 Summary ....................................................................................................... 63
  5.3 Conclusion ..................................................................................................... 66
  5.4 Recommendations ....................................................................................... 67
  5.5 Recommendation for Further Studies ............................................................. 68

REFERENCES .......................................................................................................... 69

APPENDICES .......................................................................................................... 81
  Appendix I: Questionnaire .................................................................................. 81
  Appendix II: List of Postbank Branches in Nairobi .............................................. 91
LIST OF TABLES

Table 4.1: Internet banking and delivery of customers’ services ........................................... 47
Table 4.2: Complaints in relation to internet banking ............................................................... 49
Table 4.3: Factors that may influence the adoption of internet banking .............................. 51
Table 4.4: Human resource related factors ............................................................................ 54
Table 4.5: Challenges in adopting internet banking ............................................................... 56
Table 4.6: Customer Related Factors .................................................................................... 57
Table 4.7: The process of internet banking implementation ................................................. 59
Table 4.8: Strategic measures initiatives .............................................................................. 61
LIST OF FIGURE

Figure 2.1: Conceptual Framework with Hypothesized Relationships ........................................... 36
Figure 4.2: Age bracket of the Respondents ...................................................................................... 43
Figure 4.3: Level of education .......................................................................................................... 44
Figure 4.4: Work experience ............................................................................................................. 45
Figure 4.5: Duration of using Internet Banking ............................................................................... 46
Figure 4.6: Performance of banks .................................................................................................... 48
Figure 4.7: Customer awareness programmes in internet banking ............................................... 50
Figure 4.8: Personnel in Postbank Rating ....................................................................................... 53
Figure 4.9: Measures in the implementation of internet banking .................................................... 58
Figure 4.10: Internet banking recommendation ................................................................................ 60
DEFINITION OF TERMS

Internet Banking: The systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device (Mols, 2000).

Bank: is a financial institution licensed by a government. Its primary activities include borrowing and lending money.

Savings Bank: A bank that receives and invests the savings of private depositors and pays interest on the deposits (Mayer, 1985)

Website: is a collection of related web pages containing images, videos or other digital assets. A website is hosted on at least one web server, accessible via a network such as the Internet or a private local area network through an Internet address known as a Uniform Resource Locator. All publicly accessible websites collectively constitute the World Wide Web.
ABBREVIATIONS AND ACRONYMS

IB- Internet Banking

ATM- Automatic Teller Machine

CBK- Central Bank of Kenya

SMS- Short Messages Service

POS- Point of Sale

ACH- Automated Clearinghouse

ISP- Internet Service Provider

IDT- Innovation Diffusion Theory

DTPB - Decomposed Theory of Planned Behavior

TPB- Theory of planned behavior

TAM- Technology Acceptance Model

SPSS- Statistical Package for Social Scientists

IT- Information Technology

IBS- Internet Banking Services
The Kenya Post Office Savings Bank has adopted the internet banking as a strategy to fulfill the rapidly changing customers' needs and preferences; competitive forces and product differentiation; enhancement of Customer Relationship Management; and also as a pressure to reduce transactional and operation costs and pass the benefits to customers. However, the expected output of internet banking has had various challenges. The main objective of this research was therefore to evaluate the factors affecting adoption of internet banking services in Kenya Post Office Bank. The target population of the research was the Kenya Post Office Savings Bank. Other specific objectives of the study were; the need to establish whether the ease of use, perceived risk, and perceived trust are factors that affect the adoption of internet banking; determining the challenges experienced and effect of product involvement in the adoption of internet banking in savings banks. This study utilized the descriptive research design. Two managers that is; Retail Banking and ICT management were purposively selected from each of the 34 Post Bank Branches to give 68 respondents in this study. The data was collected using a semi structured questionnaire. The collected data was edited, coded and entered in the Statistical Package for Social Sciences (SPSS) for analysis using descriptive statistics technique. Data presentation was done by the use of charts, graphs, percentages and frequency tables. This study found that most of the Post banks have already adopted internet banking. Most of the Post banks had been using internet banking for between 1 and 5 years. Internet banking is required in boosting delivery of customers' services to a very great extent. Nevertheless, complaints related to internet banking were very often in most of the banks. Majority of the respondents support customer awareness programmes in internet banking in their banks. The factors influencing the adoption of internet banking include ease of use, perceive risk, reliability, perceived creditability and perceived usefulness. Implementation of internet banking services requires competent human resources. The personnel in Post bank who are responsible in maintenance of internet banking systems are fair. This shows that an improvement in the recruitment of personnel was of paramount importance.
CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Internet banking services make it possible to replace the traditional deposit service functions of bank employees along with the brick and mortar investment required of financial institutions. Ultimately world-wide web services make it possible to have financial institutions that exist only in cyberspace. Internet services provide customers with timely, speedy, accurate and convenient banking opportunities and allow institutions to sell products customized to individual needs. Internet banking also provides financial institutions with an additional delivery channel whereby they can deliver services and sell products to targeted customers. This channel broadens the geographical reach of financial institutions and can help build and retain additional customers. There are significant benefits of internet banking but the establishment of internet banking services requires a major investment in internet infrastructure and continuing maintenance costs. Thus Internet Banking (IB) may increase a financial institution's asset growth but it is also likely to significantly increase operating costs (Wang et. al., 2003).

There is mixed evidence on the net benefits of internet banking services. Suganthi et. al. (2001) discuss how internet banking provides opportunities for banks to develop markets by attracting a new customer base from the existing internet users. Polatoglu and Ekin (2001) and Gerrard and Cunningham (2003) explore the benefits of internet banking and the innovations in this field. Gattiker et. al. (2000) and Jones et. al. (2000) point out the risk management issues faced by financial institutions. Customers who adopt electronic
financial services are more likely to perceive problems related to loss of privacy. Hoffman et. al. (1999) assert that this privacy threat has caused many users to opt out of various forms of participation in the internet, including providing personal information to websites for banking transaction purposes. Delgado et. al. (2007) suggest that empirical evidence indicates internet banks worldwide have underperformed newly chartered traditional banks mainly because of their higher overhead costs.

It is widely agreed that internet banking provides banks with a competitive advantage, by improving the quality of customer services and reducing the operational costs (Jourdan and Katz, 1999; Furst et. al., 2000). Indeed, during the last decade the number of banks that recognized the benefits of internet banking services and adopted Internet Banking increased dramatically. While globally only one bank offered internet banking services in 1995, by the end of 2002 this figure rose to 6,000 banks (Claessens et. al., 2003). In recent years, a large number of research studies have been conducted investigating the characteristics of banks that adopted internet banking. Most of these studies reached the general conclusion that large and new banks which are located in highly populated expensive urban areas are likely to adopt internet banking (Furst et. al., 2000; Daniel, 1999). Although, these arguments are well taken, they failed to explain why small local banks with a very small number of potential internet users would be willing to invest in expensive internet banking services. In recent years, we have seen that not only large international banks, but also small local banks with limited customer base have started to adopt internet banking services.
1.1.1 The Kenyan Banking Industry

As the banking fraternity continues to make forays into the retail segment of the market, it is becoming more paramount that customers be given value for their hard-earned deposits (Nyangosi, 2011). The new banking environment is about differentiating banking products, increased choices, security and accessibility. The ability of financial Institution to deliver products and services in the most efficient and effective manner, will therefore be the key to performance and relevance.

In Kenya, majority of banks have introduced internet banking, mobile banking and other e-banking facilities, to enhance delivery channels to their customers. It is however, important that the introduction of these products be accompanied with programs to broaden consumer horizon by enhancing their knowledge in the new and more innovative way of conducting banking business. For example, while Internet banking is fast and convenient mode of conducting banking transactions, this is yet to gain acceptance among banking consumers, due to fears of apprehension in this mode of banking. Like many other developing countries, e-banking in Kenya is at its nascent stages (Nyangosi, 2011). Not many banks have embraced e-banking but majority have at least one or two technology based delivery channels. The non adoption of e-banking by banks has been attributed to impaired non-availability of infrastructure and legislation to support e-banking.

The major indicator of e-banking is ATM banking. According to the survey conducted by financial sector deepening Kenya in association with Central Bank of Kenya, it was
indicated that Kenya had a total number of 968 by the end of December 2007. Further, indication was that, an increase of 31.3 percent from 2006 was experienced, when the industry had 737 ATMs. A part from individual bank ATMs, Kenyan Banks who are members of two organizations, which provide e-banking outsourcing partnership, will access to 272 ATMs. The two organizations include, Pesapoint limited and Kenya switch (Kenswitch). Customers of Banks which are members of Pesapoint can access 120 Pesapoint ATMs and those banks which are members of Kenya switch can access 152 ATMs of Ken switch banks plus Pesapoint’s giving access to a minimum of 272 ATMs (Nyangosi, 2011).

Among the innovative banks is Kenya is Equity Bank which had more ATMs (232) as at December 2007. Research reveals that, only 22 out 41 banks have their own ATMs. Kenya commercial bank and Barclays banks have second and 3rd rank with 19.92 and 14.7% of total ATMs in Kenya. All information and communication technology developments are attributed to the realization of the advantages of technology integration in the banking industry. e-banking: “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). e-banking is the use of electronic means to deliver banking services, mainly through the Internet. The term is also used to refer to ATMs, SMS Banking, Self Service (PC) Banking, POS Banking (Credit and Debit cards) telephone banking, Interactive TV, Intranet, Branchless Banking and use of plastic money, mobile phone banking and electronic funds transfers.
1.1.2 Kenya Post Office Savings Bank

The Kenya Post Office Savings Bank (Postbank) was established in 1910. Similar Savings services were offered across the East Africa region. When the East African Community broke up in 1977, the Kenya Government established its own savings bank. Postbank is primarily engaged in the mobilization of savings for national development and operates under the Kenya Post Office Savings Bank Act Cap 493B. In addition, the Bank offers local and international credit cards under the sponsorship of a commercial bank, funds remittance collections and disbursement service (Postbank, 2010).

Postbank was established primarily to encourage thrift and mobilize savings, and has carried out this mandate successfully, through expansion of its outreach and development of products and services that meet the expectations of its customers. The bank has rolled out a new service delivery system -The New Business Model- that enables the customer to use a Debit Card to transact both at the Point of Sale Terminals and ATM machines. In this new system, we offer paperless banking as no forms are completed for debit and credit card transaction. The card and the PIN number are all you will need to make your transaction.

As a savings bank it has 18 products and services including savings accounts for businessmen, salary payments, the youth, pensioners and children. The bank also sells stocks at the Nairobi stock exchange on agency basis for individual and household savers; safe custody and international money transfer services such as Western Union, MoneyGram and M-Pesa. Postbank also offers credit access through the Postbank Visa
Card. Postbank customers can now access banking services at their convenience by using the SMS banking service.

1.2 Statement of the Problem

Internet Banking is a subject that has been receiving great attention in the Banking Industry. To some extent, the intense interest in Internet Banking reflects a more general interest in the role of the Internet as a vehicle for commercial activity. Kenya Post Office Savings Bank has adopted internet banking as a strategy to fulfill the rapidly changing customers' needs and preferences; competitive forces and product differentiation; enhancement of Customer Relationship Management; and also as a pressure to reduce transactional and operation costs and pass the benefits to customers. Internet banking at Post Bank offers a unique opportunity to reach a higher number of the target customers without necessarily increasing physical branches and enhancing the product offering through innovation (Post office bank, 2011)

From the viewpoint of the consumers, the decision to use internet banking is frequently motivated by convenience and efficiency (Bruno, 2003). Online account holders do not have to make a trip to the local branch, queue, or be constrained by the bank's opening hours (Lassar et. al., 2005). Furthermore, many banks try to lure customers into using internet banking by offering lower fees, or better rates on deposits and loans. Provision of such incentives is induced by the increasing competition in the market and enables the cost savings to be passed onto the consumer. Finally, many customers may be attracted to certain appealing features of online banking, such as better access to information, speed
of payment transactions or a sense of complete control over one's account (Black et. al., 2001).

Despite all the aforementioned merits of internet banking, certain barriers to adopting exist (Black et. al., 2002). Among the variety of factors impeding the diffusion of this innovation, lack of computer knowledge and skills, and lack of computer or internet access appear to be the most prominent barriers in delivering the services to the banks' customers. It is also believed that the majority of the customers shy away from E-Banking services due to security concerns. According to some analysts, customers still value personalized and responsive services from their bankers; on average 30% of bank customers do not even know whether their banks provide online services (Black et. al., 2002). Computer illiteracy among majority of the population is still significantly high. Poor and/or lack of technological infrastructure and reliable power supply have been a challenge to the customers receiving internet banking services. Lack of proper legislation governing e-transactions and preference to paper money, as opposed to “virtual” cash in transactions has greatly influenced the implementation of internet banking.


From this background, while several studies on internet banking have been done on commercial banks, little has been done on the Savings Banks in Kenya. Studies on the performance and factors that influence the adoption of internet banking in the savings bank such as the Post Bank have not been done. A savings bank receives and invests the savings of private depositors and pays interest on the deposits. From this function, it is believed that a savings bank would experience unique challenges in the implementation of internet banking services to its customers as compared to the same function in commercial banks. The researcher was therefore motivated by this knowledge gap that exists to evaluate the factors affecting adoption of internet banking services in the Post Office Savings Bank and go further to find out the strategic measures which can be utilized to cope with the challenges experienced by the bank when delivering internet banking services to the customers.

1.3 Research Objectives

1.3.1 General Objective

To establish the factors affecting adoption of internet banking services in Kenya Post Office Savings Bank

1.3.2 Specific Objectives

i. To establish if the ease of use is a factor influencing adoption of internet banking
ii. To determine the effect of product involvement on adoption of internet banking

iii. To find out the influence of perceived risk on adoption of internet banking

iv. To establish the effect of the perceived trust on the adoption of internet banking

v. To determine the challenges experienced by banks in the adoption of internet banking

1.4 Research Question

i. How does the ease of use of internet banking influence its adoption?

ii. What is the effect of product involvement on adoption of internet banking?

iii. How does the perceived risk influence adoption of internet banking?

iv. What is the effect of perceived trust on adoption of internet banking?

v. What are the challenges experienced by banks in the adoption of internet banking?

1.5 Significance of the Study

1.5.1 Post Bank

The findings on the challenges experienced in delivery of internet banking services in the banking industry were of immense importance to the entire management of Postbank. Through the recommendations made by the study, bank managers may be able to enhance
on the ease and usefulness of the internet banking services and build good customer relationship to remain competitive in banking sector.

1.5.2 Other Banks

The findings of the study greatly contributed to the existing literature on e-banking and internet banking. For the other banks that may require to understand factors related to the e-banking; this document was a relevant reference material which would provide information various concept that would be applied in making comparisons in their performance and adoption of e-banking.

1.5.3 Researchers and academicians

Researchers and academicians would also benefit from the findings of this study which may serve as reference for future studies and academic purposes.

1.6 Scope of the Study

This study focuses on the Post Office Savings Bank as the scope of the research. The research sourced information on the effects of factors such as the ease of use of the internet services, effectiveness of the services to the customers, the effect of the perceived trust and risk on the internet banking services and the general challenges experienced by the Post Bank in the delivery of internet banking services especially to its target market.
1.7 Limitations of the Study

The study involved all the Postbank Branches and managers were the main participants. Their availability was not easy since they are mostly involved in busy schedules. This was the main limitation when the required response is not adequate for analysis. 50% would be adequate response for the analysis.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter provides the theoretical and empirical literature on internet banking. The chapter provides the concept and theories on internet banking. There is also an elaboration of the online financial services and the major determinants of adoption of internet banking by banks.

2.2 Theoretical Review

First of all a review had been conducted concerning all classical theories and we stopped on those that were used to determine factors that influence the decision of using the Internet and the traditional ways of performing a service, particularly those that deal with modernizing banking services via Internet. For each of the selected theories, certain factors were chosen considered as having a significant influence on the adoption of e-banking services.

2.2.1 Innovation Diffusion Theory

The first theory taken in consideration is the Innovation Diffusion Theory (IDT) that 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 (the degree to which a new product is more advantageous to the customers than the competing brands), compatibility (the ability of a product to exist in harmony
with other products), complexity (the intricacy of the product or a service), trialability (the degree to which a product or service may be experimented with on a limited basis) and observability which is a measure for how well internal states of a system can be inferred by knowledge of its external outputs (Gerrard and Cunningham 2003; Md Nor and Pearson 2007).

2.2.2 The Decomposed Theory of Planned Behavior

The second reviewed theory is the Decomposed Theory of Planned Behavior (DTPB). The theory was developed by Taylor and Todd (1995). The theory postulates that the intention to use a certain technology is influenced by attitude, subjective norm and perceived behavioral control. Starting from the research conducted by Md Nor and Pearson (2007), Karahanna, Straub, and Chervany (1999), certain influencing factors were selected: the attitude toward behavior and the Perceived Behavioral Control.

2.2.3 Theory of Planned Behavior (TPB)

Theory of Planned Behavior postulates that behavioral intention is a function of attitude and subjective norm. However, an additional construct, Perceived Behavioral Control (PBC) is added to the TPB model to account for situations where individuals lack complete control over their behavior (Ajzen, 1985, 1991). Notably, a number of empirical studies have found a relationship between PBC and intention (Ajzen, 1991; Sparks et. al., 2002). Perceived Behavioral Control refers to belief of the individual concerning control weighted by the perceived facility, that is, of the efficacy of the control factor in either inhibiting or facilitating the behavior. Control beliefs reflect the perceived difficulty (or
ease) with which the behavior may be effected (Ajzen, 1991). Perceived facility acts as an importance weighting (Ajzen, 1991). The association between control beliefs and PBC has been demonstrated empirically (Ajzen and Madden, 1986). For our empirical case of Internet banking, the control belief refers to knowing how to perform transactions via Internet banking (self-efficacy; Bandura, 1977) and facility refers to externally based resource constraints, such as time, money and resources. The key role of these factors reflects the perceived difficulty (or ease) with which the behavior may be effected (Ajzen, 1991).

2.2.4 TAM beliefs – perceived ease of use and perceived usefulness

The Technology Acceptance Model (TAM) was developed by Davis (1989) to explain acceptance of information technology for different tasks and it may be used to predict online banking adoption (Pikkarainen et. al., 2004). The TAM establishes that user adoption of a new information system is determined by the user's intention to use the system, which is in turn determined by the user's beliefs about the system.

Davis (1989) identified two beliefs (perceived usefulness and perceived ease of use) as the basic determining factors in information system acceptance. They defined perceived usefulness as “the degree to which a consumer believes that the use of a system will increase his or her performance” (Davis (1989) p. 320). Specifically, it refers to effectiveness at work, productivity understood as time saving and the relative importance of the system for the individual's work. Perceived ease of use refers to the degree to which a consumer believes that no effort will be required to use the system, with effort
being understood to include both physical and mental effort, and how easy it is to learn to use the system (Davis (1989, p. 320). In addition, perceived ease of use influences perceived usefulness. Actual behaviour is the manifest, observable response in a given situation with respect to a given target (Ajzen, 1991). Intention is an indication of a person's readiness to perform the given behaviour (Ajzen, 1991). This paper considers online banking acceptance as the actual behaviour.

Previous research on distance banking adoption reported evidence of the significant influence of perceived ease of use on actual usage (Eriksson et. al., 2005) and internet and mobile banking services usage intention either directly or indirectly through its impact on perceived usefulness. Internet banking web sites need to be both easy to learn and easy to use, because when an application is perceived to be easier to use than another, it is more likely to be accepted by users.

Perceived usefulness has also previously been found to have a direct effect on internet banking usage (Eriksson et. al., 2005; Pikkarainen et. al., 2004) and consumers' decision to continue using online brokerage services (Bhattacherjee, 2001). People use online banking services because they find that using banking web sites enhances the productivity of their banking activities and that they are useful for performing financial transactions.

2.2.5 Conceptual Trust-Risk Model in Internet Banking Services (IBS)

Two types of trust are important when investigating the adoption of online banking: trust in the bank and trust in the e-channel (Stewart, 1999). Approaches such as being loyal to
a brand or a service provider that is known and can be trusted are commonly used, especially in online contexts where the interaction between buyers and sellers is low (Huang et. al., 2004). Online banking is delivered by a financial institution rather than an individual, thus, consumers' trust in a bank is expected to be predominant. Trust in banks in a general context is an antecedent of perceived risk because account holders will not put themselves into a vulnerable situation if there is a lack of trust or the bank cannot be trusted. This notion is supported by Yousafzai et. al. (2003) who propose that in online banking, less risk will be involved when the bank can be trusted.

Furthermore, trust in banks' competence in delivering IBS is contextualized and this belief may be an outcome of trust in a bank more generally. Trust in a bank's competence is transferred to the channel – the internet – through which banks deliver financial services and keeps their IBS promises. However, the internet is open to the public and banks have no ownership or control of the channel. Consequently, it is reasonable to propose that consumers need to be willing to trust in the banks' competence in delivering IBS, in order to decrease their risk perception. Yousafzai et. al. (2003) state that trust in the bank is a key issue in improving customer's trust associated with the electronic banking infrastructure. Thus, it is expected that consumer trust in banks will be positively related to their trust in the bank's competence in delivering IBS and simultaneously be inversely related to risk perception regarding the IBS system. Based on Mayer et. al. (1995), it is expected that when consumers' trust in banks is sufficient and exceeds their risk perceptions in relation to IBS, consumers will be more likely to adopt IBS. Research
has shown that a significant link exists between trust in the e-channel and the adoption of internet banking (Kim and Prabhakar, 2000).

2.2.6 Banks’ Websites

In order to classify banks according to their progress in adopting internet banking this research uses the conceptual framework developed by Couch and Parker (2000). Individual circumstances of banks in adopting internet banking services vary from bank to bank; however, most banks follow a similar pattern in launching their internet banking services. The normal experience of banks indicates that the adoption of internet banking usually takes one to three years. Couch and Parker (2000) show that the process of the adoption of internet banking usually starts with a simple informative web site and moves toward a more extensive transactional web site. These authors described three kinds of web sites used by banks. These are: informational or marketing web sites; communicative web sites; and transactional web sites.

Informational web sites have marketing information about bank products and services that they want to deliver to their clients, whereas the communicative web sites involve two-way flow of information between the bank and its customers. Finally, the funds transfer over the internet requires a much more complex web site than the informational and communicative web sites. With transactional web sites, customers can make queries about their accounts and update their account information. More importantly they include a fund transfer process where clients can pay bills and transfer funds. Banks which plan to offer internet banking services would first create an informational web site, then they
would introduce a communicative web site, and finally they would introduce a transactional web site where bank customers can conduct basic banking operations. In line with this process it is expected that banks with well organized and maintained informational and communicative web sites are the ones that are most likely to adopt internet banking services first. In other words, the stage of development of the banks' web sites gives us a reliable clue of their future plans considering the adoption of internet banking services.

2.3 The Concept of Internet Banking

In an increasingly-developing society, a strong, viable economy is vital for any country that seeks to survive on the global market and to provide upwardly living standards for its citizens. Together with the increasing rate of Internet and mobile services penetration, we are witnessing significant changes regarding the conduct of economic transactions. Simultaneously, bank service providers have been constantly adapting to these changes and at the same time they have met consumers' requirements with new services. The core of banks new strategic orientation currently consists of developing new alternative distribution channels.

"Internet banking" refers to systems that enable bank customers to access accounts and general information on bank products and services through a personal computer (PC) or other intelligent device (Mols, 2000). Internet banking products and services can include wholesale products for corporate customers as well as retail and fiduciary products for consumers. Ultimately, the products and services obtained through Internet banking may mirror products and services offered through other bank delivery channels. Some
examples of wholesale products and services include: Cash management; Wire transfer; Automated Clearinghouse (ACH) transactions; and Bill presentment and payment. Other Internet banking services may include providing Internet access as an Internet Service Provider (ISP) (Kerem et. al., 2003).

Electronic banking (e-banking) is the newest delivery channel of banking services. The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which a bank’s customers can request information and carry out most retail banking services via computer, television or mobile phone (Mols, 2000). Burr, 1996, for example, describes it as an electronic connection between the bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of the following platforms: (a) Internet banking (or online banking), (b) telephone banking, (c) TV-based banking, (d) mobile phone banking, and (e) PC banking (or offline banking). Internet bank services are used actively and most of the payment transactions are concluded via e-channels. The growth of self-service has been exponential but access to the Internet is blocking further increase in the share of Internet payments (Kerem et. al., 2003). Most of the consumers who start banking online do it because they need to pay bills frequently and would like to do it with minimum effort. Besides that, people use the Internet bank to keep an eye on their money matters, view their account balance and check receiving payments from other parties.
Examining the various types of Internet banking products will help understand the concept of Internet banking. Currently, the following three basic kinds of Internet banking are being employed in the marketplace:

2.3.1 Informational Internet Banking

Information is the basic level of Internet banking. Typically, the bank has marketing information about the bank's products and services on a stand-alone server. The risk is relatively low, as informational systems typically have no path between the server and the bank's internal network. This level of Internet banking can be provided by the bank or outsourced. While the risk to a bank is relatively low, the server or Web site may be vulnerable to alteration (Mols, 2000). Appropriate controls therefore must be in place to prevent unauthorized alterations to the bank's server or Web site (Furst et al., 2000).

2.3.2 Communicative Internet Banking

This type of Internet banking system allows some interaction between the bank's systems and the customer (Furst et al., 2000). The interaction may be limited to electronic mail; account inquiry, loan applications, or static file updates (name and address changes). Because these servers may have a path to the bank's internal networks, the risk is higher with this configuration than with informational systems. Appropriate controls need to be in place to prevent, monitor, and alert management of any unauthorized attempt to access the bank's internal networks and computer systems. Virus controls also become much more critical in this environment (Mols, 2000).
2.3.3 Transactional Internet Banking

This level of Internet banking allows customers to execute transactions (Furst et al., 2000). Since a path typically exists between the server and the bank’s or outsourcer’s internal network, this is the highest risk architecture and must have the strongest controls. Customer transactions can include accessing accounts, paying bills and transferring funds.

2.4 Empirical Review

Internet banking services was first provided in the early 1980s by Nottingham Building Society and the Bank of Scotland (Tait and Davis, 1989). However, these services were soon discontinued as it was not widely accepted by the banks' customers. In the early 1990s, with the rapid growth of information technology and electronic services, banks began to launch internet banking services again (Daniel, 1999). In late 1990s many anticipated that internet banking services, such as viewing banking transactions, bill payments and even online loan applications would become industry standards. These expectations were realized in a much shorter time than expected. By 2000, Furst et al. (2000) showed that most banks were offering “balance inquiry” and “fund transfer” services through their web sites, others were offering bill payment services, and some of them were offering credit application services. These three services were the most popular services offered by all banks categories.

Ultimately world-wide web services make it possible to have financial institutions that exist only in cyberspace. Internet services provide customers with timely, speedy,
accurate and convenient banking opportunities and allow institutions to sell products customized to individual needs Gerrard and Cunningham (2003). Internet banking also provides financial institutions with an additional delivery channel whereby they can deliver services and sell products to targeted customers (Gerrard and Cunningham, 2003). This channel broadens the geographical reach of financial institutions and can help build and retain additional customers. There are significant benefits of internet banking but the establishment of internet banking services requires a major investment in internet infrastructure and continuing maintenance costs. Thus internet banking may increase a financial institution's asset growth.

There is mixed evidence on the net benefits of internet banking services. Suganthi et al. (2001) discuss how internet banking provides opportunities for banks to develop markets by attracting a new customer base from the existing internet users. Polatoglu and Ekin (2001) and Gerrard and Cunningham (2003) explore the benefits of internet banking and the innovations in this field. Gattiker et al. (2000) and Jones et al. (2000) point out the risk management issues faced by financial institutions. Customers who adopt electronic financial services are more likely to perceive problems related to loss of privacy. Hoffman et al. (1999) assert that this privacy threat has caused many users to opt out of various forms of participation in the internet, including providing personal information to websites for banking transaction purposes. Delgado et al. (2007) suggest that empirical evidence indicates internet banks worldwide have underperformed newly chartered traditional banks mainly because of their higher overhead costs. Jourdan and Katz, (1999) and Furst et al., 2000) agreed that internet banking provides banks with a
competitive advantage, by improving the quality of customer services and reducing the operational costs.

The rapid expansion of internet banking is most noticeable in the developed countries such as the USA where the availability of computers and easy access to the internet has made it easier for banks to adopt internet banking. Adoption of internet banking services in developing countries appears to be taking place at a slower pace. In recent years, however, banks in developing countries are increasingly offering internet banking services despite the limitations they face. Polatoglu and Ekin (2001) reported that, since 1997 several leading Turkish banks have offered full-service online banking successfully. According to the Banks Association of Turkey, 27 out of a total of 47 banks, in other words 58 percent of all banks in Turkey were offering internet banking services in 2006 (Banks Association of Turkey, 2006).

In conclusion, foreign banks, however, faced much more favorable conditions in adopting internet banking services. Large international banks entered the banking market with their own IT technology and internet banking systems and created competition in bank service quality. This has forced the domestic banks to upgrade their IT and accounting systems and embrace the internet as a way to retain their clients. Today as some domestic banks have successfully introduced internet banking services, the competitive pressures for the other domestic banks to follow is ever increasing.
2.4.1 Electronic Banking

Electronic banking (e-banking) is the newest delivery channel of banking services. The definition of e-banking varies amongst researches partially because electronic banking refers to several types of services through which a bank’s customers can request information and carry out most retail banking services via computer, television or mobile phone (Daniel, 1999; Mols, 1998; Sathye, 1999). Burr, 1996, for example, describes it as an electronic connection between the bank and customer in order to prepare, manage and control financial transactions. Electronic banking can also be defined as a variety of the following platforms which include internet banking (or online banking), telephone banking, TV-based banking, mobile phone banking and PC banking (or offline banking).

2.4.2 Internet Banking Services

As mentioned above internet banking services was first provided in the early 1980s by Nottingham Building Society and the Bank of Scotland (Tait and Davis, 1989). In the early 1990s, with the rapid growth of information technology and electronic services, banks began to launch internet banking services again (Daniel, 1999).

The rapid expansion of internet banking is most noticeable in the developed countries such as the USA where the availability of computers and easy access to the internet has made it easier for banks to adopt internet banking. Adoption of internet banking services in developing countries appears to be taking place at a slower pace. In recent years, however, banks in developing countries are increasingly offering internet banking services despite the limitations they face. Polatoglu and Ekin (2001) reported that, since
1997 several leading Turkish banks have offered full-service online banking successfully. According to the Banks Association of Turkey, 27 out of a total of 47 banks, in other words 58 percent of all banks in Turkey were offering internet banking services in 2006 (Banks Association of Turkey, 2006).

In an econometric study, Furst et. al. (2000) investigated the factors explaining the decision of banks to adopt internet banking. The results of this study showed that, large, young, and efficient banks which are located in urban areas, and incur higher expenses on premises and fixed assets, are more likely to adopt internet banking. The introduction of the internet has allowed banks to practice a new generation of banking activities without being forced to invest in expensive physical branches. Furthermore, findings of a comprehensive study by Daniel (1999) indicated that the market share, or the strength of a bank, is positively related to its decision to provide internet banking. This is mainly because the large and well established banks felt pressure to provide their customers with the latest financial products and services in order to give their customers a wider range of choices and thereby promote customer retention.

A large number of empirical studies have also been conducted with respect to the customer perception and acceptance of internet banking services. In this regard, Joseph and Stone (2003) investigated the customer perception of the impact of technology on service delivery in the banking sector. According to the findings of this research “... high scores on the ability to deliver service via technology appears to be correlated with high satisfaction with services deemed most important to customers” (Joseph and Stone, 2003, p. 200). Hence, availability of internet banking services appears to be very important for
banks for customer satisfaction and retention. However, availability of internet banking services itself is not a sufficient factor to increase customer satisfaction. User friendliness of the internet banking services appears to be an important factor for customers to use these services. In a similar study, Lang and Colgate (2003) found that customers who do not have IT gap, find it easier to use internet banking services therefore they have higher-satisfaction levels than the ones who do not have IT skills. The empirical study by Broderick and Vachirapornpuk (2002) also show that the level and nature of customer participation in using internet banking services has the greatest impact on the perception of service quality.

Similar to above studies, there is a large number of empirical researches indicating a positive correlation between the availability of internet banking services and the customer perception of bank service quality (Polatoglu and Ekin, 2001). Hence, we expect to see that banks which are concerned about their customer satisfaction in bank service quality are more likely to adopt internet banking services. There are however some other factors such as technological development and the cost of offering internet banking services that may also have an influence on the diffusion of internet banking services. Mols (2000) argues that the acceptance of internet banking is influenced by technological development, as well as by the perceptions of bank customers and bank managers. If the technological advancements make banking services cheaper and more users friendly we expect to see more customers using the internet to obtain the banking services they desire.
2.4.3 Determinants of Internet Banking Adoption

Previous research has found trust and risk perception issues to be crucial determinants of internet banking adoption (Wang et. al., 2003). Thus, in virtual environments it is fundamental to increase consumer trust as the risk associated with possible losses from online banking transactions is greater than in traditional environments. Moreover, the risk level associated with certain dimensions might increase in specific contexts. Although studies have showed perceived risk as an important factor in online banking adoption (Polatoglu and Etkin, 2001), only limited work has been done to identify risk dimensions in this context. Other factors that determine the extent of utilization of internet banking services by customers include the perceived ease of use, product involvement, and also challenges associated with technology and infrastructures.

2.4.1 Perceived Ease of Use of the online services

Research by Wu and Chen (2005) posits that perceived ease of use is an antecedent of trust. Perceived ease of use has a positive influence on trust as it promotes a favourable impression towards the online seller in the initial adoption of the service. Research by Koufaris and Hampton-Sousa (2002) also evidences the role of trust as a consequence of perceived ease of use. Gefen et. al., (2003) has demonstrated that perceived ease of use increases trust, because it increases the perception that e-vendors are investing in their relationship with customers. Ease of searching, transaction interaction, broken links and navigation have all been associated with changes in online trust (Nielsen et. al., 2000).
The attitude theory suggests that the more favourable attitude a person has towards a given product/service, the more likely that person is to buy or use that product/service. The overall attitude towards an object is expected to be related to behaviours towards the object (Ajzen and Fishbein, 1980). We hypothesize that consumer attitude towards online banking explains most literally consumers' banking behaviour. In other words, attitude towards online banking is expected to divide consumers into non-users, light users and heavy users of online banking.

### 2.4.2 Product Involvement

Product involvement has been defined as the degree of personal relevance of an object, product or service to a customer based on inherent needs, values and interests (Zaichkowsky, 1985). In the context of banking services, an individual will be involved with such products if he or she is interested in reading information about financial services either in the press or in consumer reports, usually makes a lot of product comparisons when considering a financial product, pays attention to financial advertising or discusses financial products with friends. It is very important to separate this concept from the usefulness concept, as involvement refers to the product itself (either acquired online or in a brick-and-mortar setting) while usefulness refers to the perceived advantages of the internet as a financial services shopping medium (that it is easier and faster than in a brick-and-mortar setting, for instance).

Product involvement has also been identified as a factor influencing internet banking services use and as an important antecedent of consumers' beliefs about internet banking.
services (Eriksson et. al., 2005). Financial services require the consumers' contribution of plenty of energy and time to gain insight about the characteristics of the alternative financial products. Consumers who are highly involved with the financial services category are more likely to engage in higher levels of ongoing search for information online. Product involvement appears to be an online information seeker booster. As Laaksonen (1994) pointed out, the concept of consumer involvement may indeed hold important keys to the development of meaningful and effective plans for financial services. Therefore, this paper highlights the need for better understanding of consumer involvement in the specific environment of online banking services.

Previous research has reported that more involved consumers show higher levels of decision making and information processing (Mittal and Lee, 1989). That is, consumers with high product involvement also have high levels of intention to collect related information online. Therefore, the more involved the consumer is with financial services, the more the banking web site information content will be processed.

Previous research has suggested that user involvement may lead to an increase in both perceived usefulness and perceived ease of use. Users who believe a system has personal significance and relevance are more likely to perceive the system as being useful with regard to the performance of their activities (Jackson et. al., 1997). Regarding the influence of involvement on perceived ease of use, as McKechnie et. al. (2006) pointed out, consumers who are highly involved with financial services perceive these kinds of services as easier to use than low-involved consumers do.
Most financial services require an ongoing interest and concern, and buyers have to engage in continuing research and consultation with others (Pallister et. al., 2007). Banking web sites help consumers with financial decision-making because they can obtain fast, transparent and up-to-date information (Bradley and Stewart, 2002). For involved consumers, online information content becomes an added value that will probably increase their online banking services perceived usefulness.

2.4.3 Perceived Risk

Pavlou (2002) argued that perceived risk arises from the uncertainty that customers face when they cannot foresee the consequences of their purchase decisions. In order to understand how risk determines customer behaviour, this paper identifies several dimensions of perceived risk applied to internet banking services and then analyses the influence of perceived risk on internet banking services acceptance.

Consumers associate security risk with the loss of bank account or credit account numbers, passwords, etc., which can result in the loss of money. Customers tend to increase purchases only if they perceive that credit card and other sensitive information is safe. Previous research has shown that perceived security risk is an important predictor of internet banking adoption (Daniel, 1999).

Privacy risk has to do with the possibility that consumers' personal information (name, address, e-mail, phone numbers, etc.) will be disclosed (particularly) to direct marketers, either inside or outside of the company. Gerrard and Cunningham (2003) found that consumers worry that the bank may share customer profiles with other companies in the
banking group and thus use the information to try to sell additional products. Perceived fears of the divulgence of personal information and feelings of insecurity have a negative influence on internet banking services use (Howcroft et. al., 2002).

Performance risk has to do with concerns that products and/or services will not perform as anticipated. Consumers' evaluation of performance risk is based on their knowledge and cognitive abilities in a certain product domain. Asymmetry in online banking information and the lack of personal contact prevent the consumer from correctly evaluating the characteristics of the service, thereby decreasing confidence (Ba, 2001).

Time loss risk is the perception than the adoption and the use of the service will take too much time. Moreover, in the case of internet banking, the time risk may be related to the time involved in dealing with erroneous transactions and downloading information (Jayawardhena and Foley, 2000).

Social risk has to do with the possibility of negative responses from the consumers' social networks. As Littler and Melanthiou (2006) pointed out, the social status of the consumer who uses online banking services may be affected because of the positive or negative perceptions of internet banking services by family, acquaintances or peers. The different types of perceived shopping risk significantly influence the choice of shopping channel by becoming a barrier to performing internet banking transactions (Howcroft et. al., 2002; Littler and Melanthiou, 2006).
2.4.4 Perceived Trust

Trust is likely to play a significant role in developing and maintaining successful relationships in the financial services sector because many of the products are complex and there is physical separation between the bank advisor and the consumer (Kassim and Abdulla, 2006). Trust occurs when one party has confidence in an exchange partner’s reliability and. Previous studies have considered confidence to be a multidimensional construct with three different dimensions: honesty, benevolence and competence (Sirdeshmukh et. al., 2002). Honesty indicates consumer certainty over the company’s sincerity and determination to keep promises. Benevolence concerns the consumer’s belief that the company is interested in his or her welfare, has no intention of behaving opportunistically and it is motivated by the quest for mutual benefit. Competence refers to the perception of the other party’s skill and ability. Nowadays, many companies largely base trust on the competencies their customers perceive, especially in high-perceived risk environments like the internet.

Studies of online banking (Kassim and Abdulla, 2006) have shown that trust is a critical factor in stimulating online banking operations. The uncertainty that an individual often assumes makes trust a necessary component (Gerrard and Cunningham, 2003; Pikkarainen et. al., 2004). Otherwise the consumer is reluctant to use online banking services (Kassim and Abdulla, 2006).

Trust proves critical in an uncertain and risky environment and, as pointed out by Grabner-Kräuter and Kaluscha (2003), online transactions always take place in that risky
environment where anonymity, lack of control and potential opportunism are always involved. In this sense, researchers have found that perceived risk is influenced by trust toward the transaction partner. Jarvenpaa and Todd (1997) have shown that trust works as a mechanism for reducing consumers' perceived risk in internet shopping. Recent research on internet banking has shown that trust reduces perceived risk and invigorates the usage of online banking services. Yousafzai et al. (2003) concluded that trust in electronic banking and its infrastructure reduces customers' transaction-specific uncertainty and related risks associated with the possibility that a bank might behave opportunistically. When people trust others, they assume that those they trust will behave as they are expected to, reducing the complexity of the interaction.

2.4.4 Other Limitations of Internet Banking

Internet banking success relies heavily on a number of technology infrastructures. Telecommunication infrastructures are required to connect various regions and parties within a country and across countries. In the absence of an adequate basic infrastructure, it is possible that the potential advantages of the use of electronic banking and ecommerce turn into disadvantages (Japhet & Usman, 2010).

There is still a low level of PC penetration and the cost of Internet access is too high. Majority of developing countries' population lacks the income required to have telephone services and internet access especially the low-income and rural populations (OECD, 2004). Without computers, one cannot have Internet access. The lack of computers at the
individual as well as at the organizational level therefore becomes a major barrier to accessing the internet and participating in internet banking services and e-commerce.

Language is another important hindrance to internet banking and other ecommerce services adoption. Language has been identified as a socio-cultural barrier that hinders both access to information and to the Internet and participation in ecommerce. Most people especially in developing countries are illiterates and uneducated. People tend to have limited access to access information on the web because information is either in a language, which assumed some degree of education. The less educated and illiterate could not read nor understand the languages that are used to disseminate information on the Internet. Therefore, many people are unaware of how their quality of their lives and their incomes could be improved by skilful use of computer technologies such as the Internet and on-line trading. The issue related to language is important because it is a gateway of information and knowledge transfer in the digital world. English is a primary language used in many Western countries where new technologies originate. It is the predominant language for development of IT and ecommerce and it is the main language used on the Web (Japhet & Usman, 2010).

2.5 Summary and Research Gaps

The extent of adoption of internet banking is hampered by a range of obstacles categorized as customers’, infrastructural, banks’ and governmental related. This include the unavailability and/or unreliability of infrastructure, the absence of government policy frameworks, the lack of banking facilities and amenities (such as credit cards), perceived risk and trust, perceived ease of use and ignorance on the part of possible users about the
enormously beneficial potential of ecommerce. The level of education, the availability of IT skills, the level of penetration of personal computers and telephone within the society hinders adoption of ecommerce.

Perceived ease of use has a positive influence on trust as it promotes a favourable impression towards the online seller in the initial adoption of the service. From the literature perceived ease of use of the online services increases the perception that e-vendors are investing in their relationship with customers. This study will attempt to establish whether this perception influences how the customers of the PostBank utilize the internet services.

It has been pointed out that perceived risk in the use of internet banking services is influenced by trust toward the transaction partner. Trust works as a mechanism for reducing consumers' perceived risk in internet shopping. This study will attempt to evaluate level of customers trust with the internet banking services offered by the PostBank. It will also evaluate the effectiveness of the services to the target market in Kenya.

The challenges that a bank would experience in the process of delivering internet banking services involve computer illiteracy among the customers, lack of access to the internet, lack of security assurance in the customers, lack of awareness of the available services and poor infrastructure. The study will investigate on the existence of these challenges in Post Bank of Kenya and the findings will give appropriate intervention measures that can be utilized to minimize the impacts of such challenges.
2.6 Conceptual Framework

**Independent Variables**
- Product involvement
- Perceived risk
- Perceived ease of use
- Trust
- Attitude

**Intervening Variables**
- Intention
- Age
- Education level
- Occupation
- Income level
- Computer skills
- Internet banking experience

**Dependent Variable**
Adoption of Internet Banking

Figure 2.1: Conceptual Framework with Hypothesized Relationships
The figure shown above gives a framework of various factors that affect the adoption of internet banking. The factors that directly affect the adoption of internet banking involve: trust; attitude; perceived ease of use; perceived risk and the relevance of the service (product involvement). Other customers’ related factors that affect the adoption of internet banking involve: internet banking experience; income level; level of computer skills; occupation; education level; age and also customers’ intention. The study seeks to describe how these factors affect the adoption of internet banking.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter dealt with the research design methodology that was used in the study. The chapter was organized into subheadings which include research design, target population, sampling design, data collection and procedures and data analysis.

3.2 Research Design

This research was done by utilizing the descriptive research design. This study sought to investigate the challenges facing the adoption of internet banking in the Kenya Post Office Savings Bank (Postbank). A descriptive design has been chosen to enable the researcher to have an in-depth understanding of the study and describe the characteristics and behaviors of phenomenon in a systematic and accurate fashion. The descriptive design is deemed the most appropriate where a detailed analysis of a single group of respondents is desired (Mugenda & Mugenda, 2003) as it provides focused and detailed insight to phenomenon that may otherwise be unclear (Mugenda & Mugenda, 2003). In this study quantitative and qualitative data were collected and analyzed in order to describe the specific characteristics of the phenomenon of the study.

3.3 Target Population of Study

The target population of study was the Kenya Post Office Savings Bank (Postbank). PostBank is currently operating in 34 branches in Nairobi area (see Appendix II). The study was a census of all the Postbank Branches in Nairobi.
3.4 Sampling Design and Procedure

Two managers from each branch focusing on the Retail Banking and ICT managers were purposively selected from each of the 34 PostBank Branches. The purposive sampling technique, also called judgment sampling (Bernard 2002, Lewis and Sheppard 2006), is the deliberate choice of an informant due to the qualities the informant possesses. It is a nonrandom technique that does not need underlying theories or a set number of informants. Simply put, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Bernard 2002, Lewis and Sheppard 2006). Retail Banking and ICT managers was therefore very appropriate in this study because they are directly involved in banking transactions and customers’ services unlike any other managers in the PostBank. The study involved a total of 68 respondents.

3.5 Data Collection Instrument

The data was collected by using a self administered questionnaire. A questionnaire is a set of systematically structured questions used by a researcher to get needed information from respondents (Zoltan, 2007). The questionnaire consisted of four parts. Part one collected data on demographic data while part 2-4 collected responses that helped to meet the objectives of the study. The questionnaire contained both close-ended and open-ended questions. This helped the researcher to collect both quantitative and qualitative data respectively from the respondents. Drop and pick method was applied in the distribution of the questionnaires to the respondents. This tool was therefore help the researcher to avoid interview bias and a high response rate was encouraged.
3.6 Data Analysis

Data collected was both qualitative and quantitative in nature. The collected data was thoroughly examined and checked for completeness and comprehensibility. Qualitative data was analyzed through content analysis in accordance with the objectives of the study. Quantitative data was coded and entered into the Statistical Package for Social Sciences (SPSS) and analyzed by applying descriptive statistics technique that generated mean, standard deviation and frequencies to analyze the quantitative and likert-scale responses.

3.6.1 Data Presentation

Data presentation was done by the use of charts, graphs, percentages and frequency tables. This ensured that the gathered information is clearly understood.

3.6.2 Ethical Considerations

According to Burton (2000), ethical concerns are present in all research designs and go beyond data collection to include analysis and publication. Practically, data obtained by means of questionnaires and interviews was always regarded as confidential. The researcher was careful about personal values, morality and ethics in the research process. Thus, respondents were be asked for their names or requested to sign their questionnaires. Moreover, strong assurances of confidentiality were always informed to all respondents. Thus, these issues were in the forefront of the researcher mind throughout research processes.
4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. The general objective of the study was to evaluate the factors affecting adoption of internet banking services in Kenya Post Office Bank. The study also sought to establish if the ease of use is a factor influencing adoption of internet banking, to determine the effect of product involvement on adoption of internet banking, to find out the influence of perceived risk on adoption of internet banking, to establish the effect of the perceived trust on the adoption of internet banking and to determine the challenges experienced by banks in the adoption of internet banking. This chapter focused on data analysis, interpretation and presentation. The researcher made use of frequency tables and percentages to present data.

4.2 The Response Rate

The researcher targeted a sample of 68 respondents who were Retail Banking and ICT managers out of which 64 responses were obtained. This represented a 94.12% response rate. This makes a response rate of 94.12%. This response rate was excellent and representative and conforms to Mugenda and Mugenda (1999) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.
This commendable response rate was made possible after the researcher personally administered the questionnaire and made further visits to remind the respondents to fill-in and return the questionnaires.

4.3 General Information

In the general information of the respondents, the researcher considered gender, age bracket, level of education and work experience.

The researcher requested the respondents to indicate their gender. The results are shown in

![Figure 4.1: Gender of the Respondents](image)

Source: (Survey Data, 2012)

From the findings (Fig. 4.1), majority of the respondents (54.69%) indicated that they were male. The rest of the respondents (45.31%) indicated that they were female. The findings clearly show that majority of the respondents were male.
Figure 4. 2: Age bracket of the Respondents

Source: (Survey Data, 2012)

From the findings as shown in figure 4.2 above, 64.06% of the respondents indicated that they were aged between 31 and 40 years, 18.75% were aged between 18 and 30 years, 10.94% were aged between 41 and 50 years while 6.25% were above 50 years in age. From these findings we can deduce that majority of the respondents were aged between 31 and 40 years.
Figure 4.3: Level of education

Source: (Survey Data, 2012)

Figure 4.3 above shows the response on the level of education of the respondents. According to the findings majority of the respondents (82.81%) were undergraduates while the rest (17.19%) were postgraduates. These findings clearly show that majority of the respondents in this study were postgraduates.
Figure 4.4: Work experience

Source: (Survey Data, 2012)

In an effort to determine their work experience, the researcher requested the respondents to indicate the number of years they had been working in their organizations. From the findings as shown in Fig. 4.4, 68.75% of the respondents indicated that they had been working in their organizations for between 1 and 5 years, 18.75% had been working in their organizations for less than one year, 9.38% had been working in their organizations for between 5 and 10 years and 3.13% had been working in their organizations for more than 10 years.
4.3 Factors Influencing Adoption of Internet Banking

In an effort to determine the factors influencing the adoption of internet banking, the researcher requested the respondents to indicate the duration of time their banks were using internet banking.

![Figure 4.5: Duration of using Internet Banking](image)

According to the findings (Fig. 4.5), 78.13% of the respondents indicated that their banks had been using internet banking for between 1 and 5 years, 17.19% indicated that their banks had been using internet banking for one year while 4.69% indicated that their banks had been using internet banking for more than 5 years. The continued use of internet banking services can be related to the relevance of the product to the customers as stipulated by Zaichkowsky on the product involvement.
The researcher also requested the managers to indicate the extent to which they thought internet banking was required in boosting delivery of customers’ services and their response was as summarized in the table below.

Table 4.1: Internet banking and delivery of customers’ services

<table>
<thead>
<tr>
<th>Extent</th>
<th>Percent</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Little extent</td>
<td>1.56</td>
<td>1</td>
</tr>
<tr>
<td>Moderate extent</td>
<td>4.69</td>
<td>3</td>
</tr>
<tr>
<td>Great extent</td>
<td>40.63</td>
<td>26</td>
</tr>
<tr>
<td>Very great extent</td>
<td>53.13</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

According to the findings as shown by table 4.1 above, 53.13% of the respondents indicated that internet banking was required in boosting delivery of customers’ services to a very great extent, 40.63% indicated to a great extent, 4.69% indicated to a moderate extent and 1.56% indicated to a little extent. From the findings we can deduce that internet banking is a product in the banking sector that can used to boost delivery of customers’ services to a very great extent.
The researcher requested the respondents to rate the performance of internet banking in their bank. From the findings (Fig. 4.6), majority of the respondents (53.13%) rated the performance of internet banking in the bank as excellent. This was followed by 32.81% who rated the performance of internet banking in the banks’ branches as good and 14.06% rated it as fair. From these findings we can deduce that the performance of internet banking in the bank was excellent.

The study also sought to determine whether the managers were receiving complaints from customers concerning internet banking. The findings are shown in table 4.2.
Table 4.2: Complaints in relation to internet banking

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rarely</td>
<td>6.25</td>
</tr>
<tr>
<td>Quite often</td>
<td>40.63</td>
</tr>
<tr>
<td>Very often</td>
<td>53.13</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

According to the findings (Table 4.2), 53.13% of the respondents indicated that they were very often receiving complaints from customers concerning internet banking. This was followed by 40.63% who indicated that they were quite often receiving complaints from customers concerning internet banking and 6.25% who indicated that they were rarely receiving complaints. These findings clearly show that complaints related to internet banking were very often in most of the bank branches.
The researcher requested the managers to indicate whether they supported customer awareness programmes in internet banking. From the findings (Fig. 4.7), 87.54% indicated that they were supporting customer awareness programmes in internet banking in their banks. This rest of the respondents (12.46%) indicated that they were not supporting customer awareness programmes in internet banking. From the findings, we can deduce that majority of the respondents were supporting customer awareness programmes in internet banking in their banks.
Table 4.3: Factors that may influence the adoption of internet banking

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ease of use</td>
<td>4.23</td>
<td>.725</td>
</tr>
<tr>
<td>Perceived risk</td>
<td>4.00</td>
<td>1.080</td>
</tr>
<tr>
<td>Reliability</td>
<td>4.00</td>
<td>.739</td>
</tr>
<tr>
<td>Received creditability</td>
<td>3.92</td>
<td>.760</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>3.85</td>
<td>.555</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

Table 4.3 above shows the extent to which the managers at the banks’ branches agreed with the stated factors that may influence the adoption of internet banking. A likert scale running from 1 to 5 was utilized where 1 represents strongly disagree, 2 represents agree, 3 represents neutral, 4 represents agree and 5 represents strongly agree. A mean greater than 3 indicated that a statement was agreed. Standard deviation less than 1 was generally considered as small and indicates that there was high level of consensus around the mean. Standard deviation greater than 1 showed huge variations in respondent ratings indicating that there was not much congregation of responses around the mean.
From the findings all the factors analyzed were considered as factors influencing the adoption of internet banking. The respondents agreed ease of use was influencing the adoption of internet banking ($M=4.23$, $SD=0.725$). This was followed by perceive risk ($M=4.00$, $SD=1.080$), reliability ($M=4.00$, $SD=0.739$), received creditability ($M=3.92$, $SD=0.760$) and perceived usefulness ($M=3.85$, $SD=0.555$).

These findings align with the literature review on the outlined major factors that influence adoption of internet banking. According to Wu and Chen the perceived ease of use is related to the trust and risk that a person may perceive on a product. Also Gefen et al has demonstrated that the perceived ease of use increases trust because it increases the perception that e-vendors are investing in their relationship with customers. This perception gives the relationship that, if the customers are able to use and have trusted the product offered by the bank, then adoption of such a product in the bank would be easier. On the other hand if the customers have the difficulty in using the product and they have no trust on it, then the adoption of such a product would be difficult. The managers clearly showed that this is the factor that mostly affected the adoption of internet banking in service delivery to their customers. This implies the need to sensitize on initiatives that would enable the customers to utilize the internet banking services and put trust on them that the product is reliable thus eliminate the perception that there is risk in using such a product in banking services. This would also help to create awareness on the usefulness of internet banking services.
4.4 Challenges Experienced in the Adoption of Internet Banking

Implementation of internet banking services requires competent human resources. The researcher requested the respondents to rate the personnel in Postbank who are responsible in maintenance of internet banking systems.

![Bar chart showing personnel ratings in Postbank](image)

**Figure 4.8: Personnel in Postbank Rating**

Source: (Survey Data, 2012)

From the findings (Fig. 4.8), 46.88% rated the personnel in Postbank who are responsible in maintenance of internet banking systems as fair, 25% rated them as fair, 18.75% rated them as poor, 6.25% rated them as satisfactory and 3.13% rated them as excellent. From the findings we can deduce that the personnel in Postbank who are responsible in maintenance of internet banking systems are fair.
Table 4.4: Human resource related factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of skilled personnel</td>
<td>3.98</td>
<td>0.946</td>
</tr>
<tr>
<td>Minimum infrastructure</td>
<td>4.02</td>
<td>0.834</td>
</tr>
<tr>
<td>High costs of IT outsourcing</td>
<td>4.27</td>
<td>0.637</td>
</tr>
<tr>
<td>Relatively high employee’s turnover</td>
<td>4.33</td>
<td>0.923</td>
</tr>
<tr>
<td>Relatively innovative human resources</td>
<td>3.97</td>
<td>0.846</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

Table 4.4 above shows the extent to which the respondents agreed that the stated human resource related factors influence the adoption of internet banking in Postbank. From the findings the respondents strongly agreed that high costs of IT outsourcing was highly influencing the adoption of internet banking (M=3.98, SD=0.946). The respondents also indicated that minimum infrastructure (M=4.02, SD=0.834), lack of skilled personnel (M=4.27, SD=0.637) and relatively high employee’s turnover (M=4.33, SD=0.923) and relatively innovative human resources (M=3.97, SD=0.846) were influencing adoption of internet banking in Postbank.
These findings are implication the effectiveness in the adoption of internet banking is related to competence of the human resource force at the bank in facilitating service delivery using such a product. This agrees with Yousafzai et. al. view if the banks' competence is high and shows innovativeness in its service delivery it makes customers to trust the product offered since they have assurance of credibility and reliability thus the bank is encouraged to offer their services in that line. This also agrees with the proposal that consumers need to be willing to trust in the banks' competence in delivering IBS, in order to decrease their risk perception. However if the bank experiences the high costs of IT, lack of infrastructure and high employees turnover, then the adoption of IBS will be at minimal level. These challenges were observed to greatly influence the adoption of internet banking at the Post Office Savings Bank of Kenya.

Table 4.5 below shows the extent to which their banks were experiencing the stated challenges in the adoption of internet banking. From the findings, the respondents agreed to a great extent that poor infrastructural maintenance was a great challenge in the adoption of internet banking (M=3.65, SD=0.987). from this study it is approved the this is an issue that still affect the adoption of internet banking among other electronic services as earlier studied by Japhet & Usman (2010). It was established that power failures (M=4.01, SD=0.827), Competition among other banks (M=3.72, SD=0.738) and lack of finances (M=4.02, SD=0.993) at the individual as well as organizational level. This is factors that had been observed earlier by OECD (2004) in the attempt of organization to adopt into eservices to their customers. Nevertheless, the respondents disagreed that there was lack of usefulness of internet banking services in the current
customers (M=2.02, SD=0.736) but requirement for the legal formalities (M=2.08, SD=0.746) was still a challenge in the adoption of internet banking.

Table 4.5: Challenges in adopting internet banking

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor infrastructural maintenance</td>
<td>3.65</td>
<td>0.987</td>
</tr>
<tr>
<td>Power failures</td>
<td>4.01</td>
<td>0.827</td>
</tr>
<tr>
<td>Competition among other banks</td>
<td>3.72</td>
<td>0.738</td>
</tr>
<tr>
<td>Lack of finances</td>
<td>4.02</td>
<td>0.993</td>
</tr>
<tr>
<td>Lack of usefulness in the current customers</td>
<td>2.02</td>
<td>0.736</td>
</tr>
<tr>
<td>Legal formalities</td>
<td>2.08</td>
<td>0.746</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

According to Japhet & Usman (2010) customer related factors also influence the adoption of IT in various business sectors. OECD (2004) also posted that the level of customers' income and economic condition would determine how the customers perceive the effectiveness of the e-services. Table 4.6 below shows the extent to which the stated customer related factors influenced the adoption and delivery of internet banking services at Postbank. From the findings the respondents agree that age of the target market
(M=3.56, SD=0.763), occupation and educational level (M=3.84, SD=0.977), income level (M=4.02, SD=0.893), computer skills (M=4.05, SD=0.586), internet banking experience (M=4.11, SD=0.847) and customers attitude towards using the system (M=4.13, SD=0.773) were influencing the adoption and delivery of internet banking services in Postbank.

Table 4.6: Customer Related Factors

<table>
<thead>
<tr>
<th>Customer Related Factors</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of the target market</td>
<td>3.56</td>
<td>0.763</td>
</tr>
<tr>
<td>Occupation and educational level</td>
<td>3.84</td>
<td>0.977</td>
</tr>
<tr>
<td>Income level</td>
<td>4.02</td>
<td>0.893</td>
</tr>
<tr>
<td>Computer skills</td>
<td>4.05</td>
<td>0.586</td>
</tr>
<tr>
<td>Internet banking experience</td>
<td>4.11</td>
<td>0.847</td>
</tr>
<tr>
<td>Customers attitude towards using the system</td>
<td>4.13</td>
<td>0.773</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

4.5 Strategic Measures used in Implementation of Internet Banking

The researcher requested the managers to indicate whether their banks had any strategic measures that they had adopted in the implementation of internet banking services and their response was as integrated in the figure below.
From the findings as shown by Figure 4.10 above, 96.88% of the respondents indicated that their banks had set up strategic measures in the implementation of internet banking services while 3.13% disagreed. From these findings, we can deduce that Post bank had set up some strategic measures in the implementation of internet banking services.
Table 4.7: The process of internet banking implementation

<table>
<thead>
<tr>
<th>Area of Operation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimizing the associated financial risks</td>
<td>76</td>
</tr>
<tr>
<td>Customer relationship</td>
<td>76</td>
</tr>
<tr>
<td>Enhancing the security in the services</td>
<td>87</td>
</tr>
<tr>
<td>Marketing the bank products/services</td>
<td>67</td>
</tr>
<tr>
<td>Efficiency in customer services</td>
<td>76</td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

The above Table 4.7 shows the areas of operation which the management greatly focused on in the process of implementation of internet banking services in order to enhance positive perception of the customers on the product. From the findings 76% agreed that their banks were embarking on minimizing the associated financial risks and Customer relationship, 87% indicated that their banks were embarking on enhancing the security in the services, 67% indicated that their banks were focusing on marketing the bank products/services and 76% indicated that their banks were focusing on efficiency in customer services.

The researcher also requested the respondents to indicate whether they would recommend in any other bank that internet banking is the way to go in developing modern banking services in commercial banks in Kenya.
According to figure 4.11 above, 96% of the respondents indicated that they would recommend in any other bank that internet banking is the way to go in developing modern banking services in Kenya while 4% indicated that they would not recommend it. From these findings we can deduce that internet banking is the way to go in developing modern banking services in Kenya.
Table 4.8: Strategic measures initiatives

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Mean</th>
<th>Std deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bank should involve highly qualified personnel in IT Skills</td>
<td>3.99</td>
<td>0.892</td>
</tr>
<tr>
<td>More research is required to understand customers’ choices</td>
<td>3.78</td>
<td>0.872</td>
</tr>
<tr>
<td>Marketing and creating awareness of new initiatives in the bank’s</td>
<td>4.01</td>
<td>0.928</td>
</tr>
<tr>
<td>products will help to change the customers’ perception on IB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bank should provide simplified systems which are user friendly</td>
<td>4.00</td>
<td>0.827</td>
</tr>
<tr>
<td>to a wide range of customers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The perceived risks associated with internet banking should be determined</td>
<td>3.91</td>
<td>0.833</td>
</tr>
<tr>
<td>and possible measures takes to encourage acceptance of</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the internet banking services to the ordinary citizens</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: (Survey Data, 2012)

Due to consistence experience of internet banking challenges by banks, the banks ought to set up strategic measures to minimize their influence in the delivery of services and to enhance in internet banking. Table 4.8 above shows the extent to which the respondents agreed that the stated initiatives would help the banks to make improvement in their service delivery in internet banking. From the findings the respondents agreed that the bank should involve highly qualified personnel in IT Skills (M=3.99, SD=0.892) and that
more research is required to understand customers’ choices (M=3.78, SD=0.872). The respondents also agreed that marketing and creating awareness of new initiatives in the bank’s products will help to change the customers’ perception on IB (M=4.01, SD=0.928). It was also established that the bank should provide simplified systems which are user friendly to a wide range of customers (M=4.00, SD=0.827). The respondents also agreed that the perceived risks associated with internet banking should be determined and possible measures taken to encourage acceptance of the internet banking services to the ordinary citizens (M=3.91, SD=0.833).
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of findings, conclusion drawn from the findings highlighted and recommendation made there-to. The conclusions and recommendations drawn were focused on addressing the purpose of the study was to evaluate the factors affecting adoption of internet banking services in Kenya Post Office Bank. The study also sought to establish if the ease of use is a factor influencing adoption of internet banking, to determine the effect of product involvement on adoption of internet banking, to find out the influence of perceived risk on adoption of internet banking, to establish the effect of the perceived trust on the adoption of internet banking and to determine the challenges experienced by banks in the adoption of internet banking.

5.2 Summary

The study was relatively able to meet the objectives and the summary of the factors that affected the adoption of internet banking at the Post Office Bank of Kenya is as described in the following sections.

In the effort to determine the factors influencing the adoption of internet banking, the research found that internet banking was required in boosting delivery of customers’ services in a very great extent. Nevertheless, complaints related to internet banking were very often in most of the banks.
Majority of the respondents supported customer awareness programmes in internet banking in their banks. The study also established that the adoption of internet banking was influenced by the ease of use; perceive risk; reliability or the relevance of the services; perceived creditability and perceived usefulness of the internet banking to the customers.

Implementation of internet banking services requires competent human resources. The research found that the personnel in Post bank who were responsible in maintenance of internet banking systems were fairly competent. This implied that an improvement in the recruitment of personnel was of paramount importance.

The human resource related factors influencing the adoption of internet banking in Post Bank included high costs of IT outsourcing, minimum infrastructure, lack of skilled personnel, relatively high employee’s turnover and relatively innovative human resources.

The challenges that Post bank was experiencing in the adoption of internet banking included poor infrastructural maintenance, power failures, competition among other banks and lack of finances. Nevertheless, the respondents disagreed with the two statements that there was lack of usefulness in the current customers and legal formalities challenged them in adoption of internet banking.

Customer related factors that influenced the adoption and delivery of internet banking services in Post bank included age of the target market, occupation and educational level,
income level, computer skills, internet banking experience and customers attitude towards using the system.

This study found that Post bank had set up strategic measures in the implementation of internet banking services. The areas of operation which the management greatly focused on in the adoption of internet banking services were mean to enhance positive perception of the customers about the product; minimize the associated financial risks, improve customer relationship, enhancing the security in the services, marketing the bank products/services and efficiency in customer services.

Due to consistence experience of internet banking challenges by banks, the banks ought to set up strategic measures to minimize their influence in the delivery of services and to enhance in internet banking. Initiatives would help the banks to make improvement in their service delivery in internet banking include involving highly qualified personnel in IT Skills. The study found that more research is required to understand customers’ choices. Marketing and creating awareness of new initiatives in the bank’s products will help to change the customers’ perception on IB. It was also revealed that the bank should provide simplified systems which are user friendly to a wide range of customers. The study also found that the perceived risks associated with internet banking should be determined and possible measures takes to encourage acceptance of the internet banking services to the ordinary citizens.
5.3 Conclusion

This study concludes that Post bank has already adopted internet banking and the services are available in all branches. Most of the branches of the Post banks had been using internet banking for between 1 and 5 years. Internet banking is required in boosting delivery of customers' services to a very great extent. Majority of the respondents support customer awareness programmes in internet banking in their banks.

The customer related factors influencing the adoption of internet banking include ease of use, perceive risk, reliability, perceived creditability and perceived usefulness. Implementation of internet banking services requires competent human resources in information technology and internet services. Other factors include age of the target market, occupation and educational level, income level, computer skills, internet banking experience and customers attitude towards using the system.

The human resource related factors influencing the adoption of internet banking include high costs of IT outsourcing, minimum infrastructure, lack of skilled personnel, relatively high employee's turnover and relatively innovative human resources. The challenges that banks experience in the adoption of internet banking include poor infrastructural maintenance, power failures, competition among other banks and lack of finances.

This study also concludes that Post bank had set up strategic measures in the implementation of internet banking services. The areas of operation which the management greatly focused on in the process of adoption of internet banking services were meant to enhance positive perception of the customers about the product include
minimizing the associated financial risks and improving customer relationship, enhancing the security in the services, marketing the bank products/services and efficiency in customer services.

5.4 Recommendations

This study established that complaints related to internet banking were very often in most of the Post bank branches. The study therefore recommends that the management of Post bank should ensure that their customers get help in using internet banking. Further, the management should ensure that the systems used in internet banking are efficient and easy to use.

The study also established that the personnel in Post bank who were responsible in maintenance of internet banking systems were fairly competent. The study therefore recommends that the management of post bank should ensure that the recruitment process is fair and that skilled employees are involved in internet banking service delivery. Further, the banks should make improvement in their service delivery in internet banking by involving highly qualified personnel in IT Skills.

To the marketing department of Post bank, the study recommends that they should seek to create awareness on internet banking to their customers. Marketing and creating awareness of new initiatives in the bank’s products will help to change the customers’ perception on IB.

The study also recommends that the bank should provide simplified systems which are user friendly to a wide range of customers. The perceived risks associated with internet
banking should be determined and possible measures takes to encourage acceptance of the internet banking services to the ordinary citizens.

5.5 Recommendation for Further Studies

From the study and related conclusions, the researcher recommends further research in the area of the role of product involvement in the adoption and implementation of internet banking in Kenya. The study also recommends more research studies in the area of the effects of perceived risk on the adoption and the implementation of internet banking.
REFERENCES


Banks Association of Turkey (2006), "Internet Banking Statistics", available at: www.tbb.org.tr,


69


Claessens, S., Dobos, G., Klingebiel, D., Laeven, L. (2003), "The growing importance of networks in finance and its effects on competition", in Nagurney, A.

Couch, K., Parker, D.L. (2000), "Net interest grows as banks rush online", Southwest Economy, March/April, No.2.


Gachiri Catherine Wanjiku (2008). Extent And Challenges Of Application Of Information And Communication Technology In Marketing In Commercial Banks In Kenya. Unpublished MBA Project, University of Nairobi


APPENDICES

Appendix I: Questionnaire

RE: Participation in Research

I am Mercy W. Wahome pursuing my masters degree in Business Administration and conducting a research entitled, “Factors Affecting Adoption Of Internet Banking in Kenya Post Office Savings Bank In Nairobi” as one of the major requirements. In this regard, you have been selected as one of the two respondents from this branch of the PostBank to take part in this study. Kindly respond to all items to reflect your opinion and experience. Please answer all the questions freely. You will not be identified from the information you provide and no information about individuals will be given to any organization. The data collected will be used for this academic research only.

Your participation is important for the success of this project and I greatly appreciate your contribution.

Yours sincerely,

Mercy W. Wahome
### Section A: Biographic Information

1. kindly fill in the table below on your general information (kindly tick in the appropriate space provided)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td><strong>Sex:</strong></td>
</tr>
<tr>
<td></td>
<td>Male [ ] Female [ ]</td>
</tr>
<tr>
<td>b.</td>
<td><strong>Age bracket</strong></td>
</tr>
<tr>
<td></td>
<td>18-30 yrs [ ] 31-40yrs [ ] 41-50yrs [ ] Above 50 yrs[ ]</td>
</tr>
<tr>
<td>c.</td>
<td><strong>Level of education</strong></td>
</tr>
<tr>
<td></td>
<td>Ordinary Level [ ] Diploma/College Certificate [ ]</td>
</tr>
<tr>
<td></td>
<td>Under graduate [ ] Post graduate [ ]</td>
</tr>
<tr>
<td></td>
<td>Other (Specify)...............................</td>
</tr>
<tr>
<td>d.</td>
<td><strong>Work experience</strong></td>
</tr>
<tr>
<td></td>
<td>Less than 1 year [ ] 1-5 years [ ]</td>
</tr>
<tr>
<td></td>
<td>5-10 years [ ] More than 10years [ ]</td>
</tr>
</tbody>
</table>
Section B: Factors Influencing Adoption of Internet Banking

2. How long has this package been applied?
   
   Current year [ ]
   
   1-5 ago [ ]
   
   More than 5 years [ ]

3. To what extent do you think that internet banking is required in boosting delivery of customer services?
   
   Not at all [ ]
   
   Little extent [ ]
   
   Moderate extent [ ]
   
   Great extent [ ]
   
   Very great extent [ ]

4. How would you rate the performance of the internet banking in this bank?
   
   Poor [ ]
   
   Fair [ ]
   
   Good [ ]
   
   Excellent [ ]
5. How often do you receive complaints from customers concerning internet banking services?

- Rarely [ ]
- Quite often [ ]
- Very often [ ]

6. Do you support customer awareness programmes in internet banking?

- Yes [ ]
- No [ ]

7. If yes in Q7 above, which are some of the initiatives that you have introduced in the implementation of internet banking services?

8. The following are some of the factors that may influence the adoption of internet banking in most commercial banks. Kindly use the scale of 1-5 to indicate the factors (s) that greatly influence the adoption internet banking in Postbank. Scale as 1=Not at all, 2=little extent, 3=moderate extent, 4=great extent, 5=very great extent

84
Section C: The Challenges Experienced in the Adoption of Internet Banking

9. Implementation of internet banking services requires competent human resources. How would you rate the personnel in Postbank who are responsible in maintenance of internet banking systems?

   Poor  [  ]
   Fair  [  ]
   Good  [  ]
   Satisfactory  [  ]
   Excellent  [  ]

10. What are some of the human resource related factors that influence the adoption of internet banking in Postbank? Kindly use the scale of (1-5) to indicate the
extent of influence of the factor (s) in the adoption of internet banking. Scale as 1=Not at all, 2=little extent, 3=moderate extent, 4=great extent, 5=very great extent

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of skilled personnel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum infrastructure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High costs of IT outsourcing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relatively high employee’s turnover</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relatively innovative human resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. There are common challenges that the bank is likely to experience in the adoption of internet banking. Which of the following do you feel have been experienced in this bank? Kindly use the scale of (1-5) to indicate the extent of experience in the adoption of internet banking. Scale as 1=Not at all, 2=little extent, 3=moderate extent, 4=great extent, 5=very great extent
12. The following are customer related factors that may influence the adoption of internet banking in Postbank, to what extent do you feel the issues have influenced delivery of internet banking services? Kindly use the scale of (1-5) to indicate the extent of influence of the factor(s) in the adoption of internet banking. Scale as 1=Not at all, 2=little extent, 3=moderate extent, 4=great extent, 5=very great extent

<table>
<thead>
<tr>
<th>Challenges</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor infrastructural maintenance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power failures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition among other banks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of finances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of usefulness in the current customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal formalities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Related Factors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Age of the target market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation and educational level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income level</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internet banking experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customers attitude towards using the system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Section D: the Strategic Measures in the Process of Implementation of Internet Banking**

13. Are there any strategic measures that your bank has adopted in the implementation of internet banking services?

   Yes [ ]    No [ ]

14. In which area of operation does the management greatly focuses on in the process of implementation of internet banking services to enhance positive perception of the customers about the product?

   Minimizing the associated financial risks [ ]

88
Customer relationship [ ]
Enhancing the security in the services [ ]
Marketing the bank products/services [ ]
Efficiency in customer services [ ]

15. Would you recommend in any other bank that internet banking is the way to go in developing modern banking services in commercial banks in Kenya?

Yes [ ]  No [ ]

16. What are your recommendations on the challenges that commercial banks experience in the delivery of internet banking services?

17. Due to consistence experience of internet banking challenges by banks, the banks ought to set up strategic measures to minimize their influence in the delivery of services and to enhance in internet banking. Do you agree that the following initiatives will help the banks to make improvement in their service delivery in internet banking? Kindly use the scale of (1-5) to show how you agree with the
statement. Scale as 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>The bank should involve highly qualified personnel in IT Skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More research is required to understand customers’ choices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing and creating awareness of new initiatives in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bank’s products will help to change the customers’ perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>on IB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The bank should provide simplified systems which are user</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>friendly to a wide range of customers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The perceived risks associated with internet banking should be</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>determined and possible measures takes to encourage acceptance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of the internet banking services to the ordinary citizens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Thank you!*
## Appendix II: List of Postbank Branches in Nairobi

<table>
<thead>
<tr>
<th>Number</th>
<th>Branch Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Market Branch</td>
</tr>
<tr>
<td>2</td>
<td>Kikuyu Branch</td>
</tr>
<tr>
<td>3</td>
<td>Ngara Branch</td>
</tr>
<tr>
<td>4</td>
<td>Westlands Branch</td>
</tr>
<tr>
<td>5</td>
<td>Githurai Branch</td>
</tr>
<tr>
<td>6</td>
<td>Uthiru Branch</td>
</tr>
<tr>
<td>7</td>
<td>Eastleigh Branch</td>
</tr>
<tr>
<td>8</td>
<td>Limuru Branch</td>
</tr>
<tr>
<td>9</td>
<td>Thika Branch</td>
</tr>
<tr>
<td>10</td>
<td>Kiambu Branch</td>
</tr>
<tr>
<td>11</td>
<td>Karuri Branch</td>
</tr>
<tr>
<td>12</td>
<td>Matuu Branch</td>
</tr>
<tr>
<td>13</td>
<td>Dandora Branch</td>
</tr>
<tr>
<td>14</td>
<td>Head Office Branch</td>
</tr>
<tr>
<td>15</td>
<td>Customer Service Center</td>
</tr>
<tr>
<td>16</td>
<td>Wabera Branch</td>
</tr>
<tr>
<td>17</td>
<td>Canon House Branch</td>
</tr>
<tr>
<td>18</td>
<td>Afya Center Branch</td>
</tr>
<tr>
<td>19</td>
<td>Kenyatta Market Branch</td>
</tr>
<tr>
<td>20</td>
<td>Karen Branch</td>
</tr>
<tr>
<td>21</td>
<td>Tom Mboya Branch</td>
</tr>
<tr>
<td>22</td>
<td>Ngong Branch</td>
</tr>
<tr>
<td>23</td>
<td>Ronald Ngala Branch</td>
</tr>
<tr>
<td>24</td>
<td>Enterprise Branch</td>
</tr>
<tr>
<td>25</td>
<td>Jogoo Road Branch</td>
</tr>
<tr>
<td>26</td>
<td>Ongata Rongai Branch</td>
</tr>
<tr>
<td>27</td>
<td>Kibwezi Branch</td>
</tr>
<tr>
<td>28</td>
<td>Athi River Branch</td>
</tr>
<tr>
<td>29</td>
<td>Kangundo Branch</td>
</tr>
<tr>
<td>30</td>
<td>Emali Branch</td>
</tr>
<tr>
<td>31</td>
<td>Mlolongo Branch</td>
</tr>
<tr>
<td>32</td>
<td>Kajiado Branch</td>
</tr>
<tr>
<td>33</td>
<td>Viwandani Branch</td>
</tr>
<tr>
<td>34</td>
<td>Nacico Branch</td>
</tr>
</tbody>
</table>

91