FACTORS INFLUENCING THE ADOPTION OF DIGITAL BANKING BY CUSTOMERS AMONG COMMERCIAL BANKS IN KENYA

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DECLARATION

This research project is my original work and has not been presented for any academic award in any other institution.

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DEDICATION

To my parents, brothers and sisters for the prayers, encouragement to never get tired in improving myself and aiming for the skies.
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LIST OF ABBREVIATIONS AND ACRONYMS

ATM…………………………………………..Automatic Teller Machine

CBK……………………………………….Central Bank of Kenya

CCK……………………………………….Communication Commission of Kenya

DOI……………………………………….Theory of Innovation

IB…………………………………….....Internet Banking

ICT……………………………………….Information Communication Technology

IS………………………………………..Information System

IT……………………………………….Information Technology

KBA……………………………………..Kenya Bankers Association

PWC…………………………………..Price Water Cooper House

SPSS…………………………………..Statistical Package for Social Scientists

TAM……………………………………Technology Acceptance Model

TAR……………………………………Theory of Reasoned Action

TPB……………………………………Theory of Planned Behaviour

UK………………………………………..United Kingdom
ABSTRACT

Digital banking has been adopted by many developing countries, which has led to better product offering, improved customer service and overall customer experience yet in Kenya; there is a very low adoption rate by the customers. The objective of this research was to find out the factors influencing the adoption of digital banking services by customers among commercial banks in Kenya. This study was guided by Rogers’s Diffusion of Innovations theory.

The study used descriptive research design. Primary data was collected using questionnaires. A total of 210 questionnaires were administered, out of this 168 questionnaires were fully completed which are the ones which analyzed. The findings were analyzed and presented in frequency tables. Chi square tests were carried out to find out the relationship between the independent and dependent variables. The interpretation of data analyzed from this particular research revealed that digital banking is desired among many in Kenya. The study also found out that demographic factors like age, level of education and occupation had an influence on the adoption of digital banking services. Customer perceptions and attitude factors also influenced the adoption rates while social factors did not influence the adoption of digital banking services. From the research, the main factor hindering the adoption of these services is security concerns, lack of skills and also customers did not know about the benefits of using these services. Among the recommendations made, banks need to enhance security features for their systems, provide skills training and invest more in creating customer awareness on what can be done using these alternative channels of banking and their benefits.
CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

The transaction banking landscape is quickly evolving largely because of digital technologies. Digital technologies are rapidly increasing a bank's connectivity with all stakeholders including customers, employees and suppliers, fostering innovation through products and services that reduce the processes involved in accessing banking services. Consumers around the world are quickly adopting digital banking. To survive in this new era of technology enabled banking, banks have to become digitally proficient. Failure to take action and adapt to the new era will no doubt lead to unprecedented losses and eventual failure.

The main theory guiding this study is Diffusion of Innovation (DOI) theory by Rogers, (1995). According to Rogers, Diffusion of Innovation refers to a process through which an innovation is communicated to different channels over a period of time in a social system. From a technological perspective, Rogers views adoption as mental process through which a person progresses from initial hearing of the innovation to the last stage of adopting the innovation. The other theory guiding the study is Technology Adoption Model (Davis 1989, Davies et al. 1989).

There are forty three (43) licensed commercial banks, 8 Representative offices of foreign banks, 1 licensed mortgage finance company, 13 licensed deposit taking microfinance institutions, 79 licensed foreign exchange bureaus and 3 Credit Reference Bureaus (CBK, 2016). Banks play an important role in the development of the country and the attainment of the Vision 2030. Some of the functions of commercial banks among others are; capital formation; fiancé provision; implementation of monetary policy; promoting industrial development; promoting employment opportunities and monetization of the economy.

1.1.1 Adoption of Innovations

According to Rogers (1995), there are five steps that individuals go through in their decision making process. These stages include; awareness, interest, evaluation, trial and adoption. Individuals go through these steps at different speeds which results in them being grouped into different groups depending on their rate of adoption. The speed with
which each individual goes through these stages will vary due to innovation, its complexity, its costs, how disruptive the innovation is to the current workflows and the source of information. (Rogers, 1995).

In all the stages, individuals have opinion leaders among themselves whose opinions and attitudes influence their behaviour. Opinion leaders are persons who the first in adopting the various innovations or ideas before everyone else. Companies have the responsibility to convince the opinion leaders to their innovations in order to influence the followers to do so. The challenge with an opinion leader is that it is difficult to because each product has different adoption behaviour thus may find some cases where an adopter for one product is a laggard for another. Rejection of an innovation occurs at any stage, while discontinuation is not considered as rejection since it happens after adoption. Rogers further suggests that the rate of adoption of an innovation should be evaluated on its characteristics i.e. relative advantage, compatibility, complexity, trialability and observability. Therefore, according to Rogers, the decision to adopt an innovation should follow a similar process and take place in distinct stages.

### 1.1.2 Factors Influencing Adoption

Rogers, (1995) proposed five elements that influence adoption of innovation and the level of success of the innovation in the target market. Rogers suggested that in order to access the success rates of an innovation, one has to compare an innovation with the five factors in order to find out any likely barrier so that you can come up with ways to improve on the barrier to make the innovation more adaptable and useful to the potential users which leads to better adoption rates. Accessibility to the digital banking channels is a key adoption factor. Other customers feel security and lack of trying opportunities are the key factors hindering the adoption of digital innovations.

According to Davies (1989) the main factors affecting the adoption of innovations are relative advantage over other already available means, compatibility to a customer’s lifestyle, preferences and perception, level of complexity with the innovation especially ease of use and perceived usefulness, ability for a consumer to trial or sample the innovation before using it and finally what the consumer is able to see/observe either
directly or indirectly. Companies or businesses need to know the factors which influence the adoption of an innovation in order to ensure that they are kept in consideration during the implementation of the innovation so that the adoption of such innovations have better success rates. The challenges that may affect the adoption can also be identified and strategies are put in place to counter them. (Pwc, 2011)

1.1.3 Digital Banking

A successful digital offering in banking industry implies provision of superior mobile and online banking access to bank customers. According to Mbaraghani (2008), the fast paced development of digital banking services has made life a lot easier and more convenient to carry out transactions.

Singh (2002) said that technology advancement has improved the way banks are delivering their services to customers through channels like ATMs, mobile and internet banking which has made it necessary for banks to invest in advanced technologies to ensure they maintain their competitive advantage among the industry players. This advancement has led to improved service quality, operation cost reduction and the future of banking is on a positive growth. (Siam, 2006).

Digital banking has many benefits. Some of the benefits of using digital banking to the banks include: cheaper operating costs, improved service delivery, higher profit margins, improved digital analytics and predictive models leading to an overall improved customer experience. Digital banking has led to banks having a better insight on the ever changing customer preferences. Insights into customers’ behavior have enabled more targeted and relevant informed strategies to be executed through digital media. (Pwc, 2011). On the other hand, digital banking is beneficial to the consumers in so many ways through improved services, better product offering, round the clock bank services through mobile, internet banking, ATM services; lower charges; convenience; time saving, a wider array of products and services. (Pwc, 2011).
1.1.4 Commercial Banks in Kenya

The banking industry is characterized by few large banks which have both local and foreign ownership. Commercial banks offer mainly corporate and retail services while some of them offer additional services like insurance, custodial and investment options both locally and internationally. (Dikken & Hoeksema, 2001). Commercial banks are important in economic development of a country’s economy as they are reservoirs of resources which are important for economic development. Commercial banks facilitate economic development by capital formation, financing innovations, providing capital and credit to individuals and companies, promoting industrial development and providing employment opportunities to people among others.

The banking sector embraces changes in ICT as evidenced by most of them adopting branchless banking (CBK Annual Report, 2003). The Central Bank further notes that ICT advancement in the banking industry increases efficiency and service quality. In addition, ICT is used by commercial banks to improve their operational and service quality standards. Banks in developing countries like Kenya play a very important role in economic development. A large number of people in developing countries are poor, unemployed and mainly depend on agriculture for their day to day survival. The countries lack capital, initiative and the entrepreneurial skills. The infrastructure is also undeveloped; industries are underdeveloped and in others are undeveloped. This is where commercial banks come in to aid the situation. They finance industries, individuals and companies by advancing them loans, helping in capital formation and promoting the monetary policies of the country.

Banks are faced with the challenge of expanding and increasing their market share. This has made it necessary for them to invest heavily in their branch distribution channels to reach a wider market. Other banks on the other hand have taken up a more dramatic approach to reach a wider market by utilizing this phenomenon called the internet. The internet has revolutionized the way businesses carry out their businesses. Banks have been forced to also make use of the internet and integrate it in their day to day operations to cut on costs and reach a wider market in a more cost effective way. The internet has enabled banks to introduce a more convenient, time saving and cost effective way of
banking through services like ATM services, mobile and internet banking, agency banking and customer service contact centre where one can call and request for a transaction to be effected without he/she going to the branch to issue the instructions.

According to Kalakota & Whiston, 1997, some customers have not yet adopted these digital banking services despite their convenience, time saving and lower costs of handling these transactions. This group of customers has cited security and uncertainty issues as the main factor which discourages them from adopting this faster, cheaper and cheaper banking channel. (Kuisma et al., 2007). This scenario is also experienced has also been experienced in Kenya by the numbers projected to have adopted digital banking being lower than expected i.e. according to CCK, 2011), currently the digital banking users is projected to be at 14 million users.

1.2 Research Problem

Adaptation of digital banking began as an alternative for commercial banks but has in recent times morphed into a critical necessity that is central to modern day banking. Customers and other stakeholders in the banking industry are quickly adopting digital driven trends for the value it presents in terms of convenience, speed and ease of access. Further, digitally-savvy members of the population are on the increase and the technology driven generation is coming of age. This trend makes it absolutely paramount for banks to continually adopt technology in their daily operations in order to meet and exceed the needs and preferences of their customers.

Studies have been carried out in relation to customer perception and acceptance of internet banking. A study by Daniel (1999), in the UK and the Republic of Ireland, found out that a bank’s market share has strong relationship with the ability of the bank to provide internet banking to its customers. According to the study, this is because the large banks were forced to provide their customers with the advanced products with varieties to suit every taste and preference to promote and enhance customer retention. This study was however done in a developed economy and the findings may not be the same as the ones in Kenya mainly because Europe is developed economy while Kenya is a developing economy.
Joseph & Stone (2003) sought to find out customer perception and attitudes towards the impact of technology on service delivery in the banking sector in the United States of America. According to the findings of this research the capability to provide superior services through digital means has a strong and positive relationship with the customer satisfaction levels in services that are important to customers. Internet as technology presents a host of new opportunities banks to provide customers with superior services. Like the previous research, this study was done in a developed market and may not apply to a developing market like Kenya.

Locally, there have been a number of studies in the field of digital banking but there is still a knowledge gap since they studies covered other concepts in internet banking but not specifically on the factors that influence the adoption of digital banking by customers among commercial banks in Kenya. In a study by Ombati & others, (2010) on the relationship between technology advancement and the service quality in the banking industry in Kenya, he found out that technology affected service quality in the banking industry. Banks that invest in technology in order to improve their service quality have a competitive advantage. According to the study, service quality is the main differentiator among banks in Kenya. Rates and prices can always be matched, but service is the only aspect that cannot be matched or copied.

Nyangosi & Arora (2009) also did a study which focused on perceived usefulness of internet banking in Kenya. This study found out that that ATM technology was the most easily accessible technology in banks. By this time, internet banking was still new to Kenya thus the low adoption rates but the study findings provided a source of information for banks to use to find out the most widely used form of internet banking and the extent to which customers were using these alternative channels. Ochieng (1998) did an analysis of key factors considered in the successful implementation of information systems: A case study of commercial banks in Kenya. From the study, he found out some of the key factors were security, privacy, accessibility and financial capability among others. This study focused on the implementation of information system by commercial banks to
increase efficiency and not the factors that affect the adoption of the information systems by clients hence the need for this study.

There is still more to be studied on factors influencing the Kenyan banks customers to adopt digital banking. Insights into what factors influence the uptake of digital banking services will assist banks in coming up with better strategies of attracting and retaining these evasive customers. The study sought to find out which factors influenced the factors influencing the adoption of digital banking in Kenya.

1.3 Objectives of the study

The objective of the study is to find out the factors influencing the adoption of digital banking services by customers among commercial banks in Kenya.

1.4 Value of study

The research study will be beneficial to commercial banks by aiding implementation of programs and policies that will increase the adoption and diffusion of online banking and increase understanding of the role of internet banking in achieving faster growth in Kenya’s banking industry.

The study will also assist students and lecturers by crossing the knowledge gap that exists in this field of digital banking. Researchers who may also want to embark on similar study in future will also benefit with this study as it will provide a source of additional literature to build on.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
This chapter provides a wider understanding of the concepts and variables of this study from previous research. The content of this chapter focuses on literature review on relevance of digital banking services, theories in adoption of information technology, and the theoretical framework guiding this study.

2.2 Theoretical Foundation
The study is hinged in two theories namely, the Diffusion of Innovation Theory advanced by Rogers in 1962 and the Technology Acceptance Theory advanced by David et.al in 1989.

2.2.1 The Diffusion of Innovation Model
Rogers (1995) argued that, diffusion process takes place in four stages namely: invention, communication of the innovation through a social system, time and consequences of adopting the innovation to the adopter’s image among society or their peers. The chances of an innovation adoption are affected by the nature of networks and the opinion leaders’ roles. Research on diffusion of innovation has attempted to explain factors that influence how users adopt innovations. Opinion leaders have a huge impact on people’s behavior through their interactions and opinions. In addition to the opinion leaders change agents and gatekeepers also have a key role in the diffusion process. People can be grouped into five categories based on their adoption behavior. These groups include innovators, early adopters, early majority, late majority and laggards.

There are few innovators who adopt the innovations as soon as it is introduced (2.5%), the early adopters 13.5% who try the new innovations after the innovators, the early majority 34%, the late majority 34% come up a while later while the laggards (16%) are the last people to adopt the innovation. Diffusion is influenced by five elements; an innovation characteristic, decision making process, individual characteristics, the product itself, communication channels and the effect of the innovation in the eyes of society.
2.2.2 Technology Acceptance Model

The Technology Acceptance Model (TAM) by Davis (1986) is a theory that explains why users accept or reject an innovation. Davis (1986) relying on other studies (Schultz & Slein, 1975; Robey, 1979) identified only two distinct salient beliefs applicable in the context of Information System and computer applications acceptance in general, that is, the perceived usefulness of an innovation and perceived ease of use of the innovation. According to Davis (1986) there is a relationship between the adoption of a new technology model and the perceived usefulness, perceived ease of use of the innovation, user’s attitude towards the technology and the behavioral intentions of the user.

Davis, Bagozzi & Warshaw (1989), developed this theory further to be one of the most widely acknowledged theories to explain the user acceptance of information systems. TAM is anchored on theories in the domain of social psychology. This theory explores behavioral intentions to use information systems and also draws relationships between the main variable namely; perceived ease of use, perceived usefulness, attitude of the user, behavioral intention and the adoption and usage of the system.

2.3 Factors Affecting Technology Adoption

Digital banking is affected by a number of factors. Customers will adopt digital banking based on various reasons. Some the reasons could be due to convenience, perceived ease of use, accessibility, trust or security associated with the various modes of digital banking. The factors are discussed in details below.

2.3.1 Influence of Awareness

In a study by Pikkarainen, et al (2004), awareness of online banking was found to be important in determining users’ acceptance of online banking. Similarly, Sathye (1999) concluded that customers considered how much information they had about internet banking before adopting it and argued that the main factors hindrances of the adoption of online banking in Australia is lack of awareness on what can be done through online banking and the benefits of online. He identified information about the product benefits as essential in promoting the product and thus for services such as digital banking, it is essential for banks to ensure that consumers are aware of their availability and value.
addition. Siedek (2008) concurs with this argument, noting that similarly for agency banking, banks have to invest heavily in marketing and advertising to ensure that potential customers are aware of the services offered in order to build up mass adoption.

According to Rogers & Shoemaker (1971), users experience process involves awareness, assurance, choice and affirmation before becoming willing to adapt to new technology. The adoption or rejection of new products or services begins with the potential user becoming aware of the technology (Rogers & Shoemaker, 1971). Lack of awareness is key factor that will determine whether a customer will take up internet banking or not. (Sathye, 1999). The consequence of the above findings is that banks have to communicate to their prospective customers the benefits of digital banking through targeted marketing operations. This could be achieved through focusing on the digital value settings, essential needs and arrangements, spontaneous needs and decisions and mobility related needs. (Sathye, 1999).

2.3.2 Trust and Security

The issue of trust is widely represented in literature, but there lacks a succinct definition of the term as its meaning differs across a variety of disciplines. Customer trust is an important factor that affects the success of digital banking services uptake. (Paylou & Gefen 2004). According to Kim et al. (2009), trust is a belief that an opposite party will behave honestly. One party is often willing to be vulnerable to the actions of another with an implied risk and dependency on each other. Trust is an important issue in all relationships and there have been several studies in the realm of IS/IT that have dealt with it (Gefen et al. 2003, Paylou & Gefen 2004).

Financial transactions especially those that are done digitally (or using non-traditions models such as agents) entail a greater risk for customers making it a key consideration for the success of digital banking (Cheng et al. 2006). Within the IS/IT sector, trust can be distinguished into two realms; trust in the system of delivering services and trust in service providers (Lee et al. 2007). Bhattacherjee (2002) likewise defined and measured customers ‘trust for service providers on the basis of ability, integrity and benevolence. Systemic trust is vital in encouraging clients to use the technological system that is associated with digital banking. Here, security of clients’ finances and other personal
details is of most important. Customers have a fear to providing their financial details through the internet or mobile (Kim et al. 2009).

According to Cheng et al. (2006), they found out that internet security was a significant consideration for customers in deciding whether to use internet banking. According to PwC (2011), customers may find it difficult to trust digital technology because of system security, distrust of service providers and service reliability. The more customers exhibit confidence in digital technology, they would be more willing to adapt to digital banking services (Kim et al. 2009).

2.3.3 Perceived Usefulness
Perceived usefulness has been found to be a key determinant influencing the adoption of IT (Lee et al. 2007). Consumers will adopt digital banking services if they believe that they offer added value as compared to the traditional services. Continued usage of these services will also depend on usefulness as confirmed by ongoing usage experiences of the consumers. Perceived Usefulness is defined is the level to which users believe that using an innovation will increase their productivity (Davis, 1989). Through several studies (Davis 1989, Davis et al. 1989, Wang et al. 2003), Perceived Usefulness is believed to have a relationship with uptake of information technologies. Robey (1979) argued that people will not adopt a technology that will not help them perform their jobs in an easier way. Davies et al. (1989) further argue that PU is key in the achievement of tasks not characteristic in the use of IT itself mainly dealing with user aspects of new technology. In this context of digital banking services, the study investigated the influence of perceived usefulness on the adoption of digital banking services.

2.3.4 Perceived Ease of Use
Davis 1989 defined Perceived ease of use as the extent to which users believe that using a system will be easy and effortless. Although research on IS/IT system usage have concluded that PU is important in predicting adoption, there are few studies which have found a direct relation between the ease with which a system is i.e. PEOU and the uptake of information technology. TAM argues that PEOU influences users ‘adoption of IT directly or indirectly through PU (Davis et al. 1989), an argument that has also been posited by other studies (Adams et al. 1992). PEOU is a measure of the evaluations of
users’ ease to use technology and how easily they learn to use it. It therefore deals with motivations based on intrinsic side of technology use especially the process involved in using the given technology. PEOU affects adoption when characteristics such as navigational use add to the importance of the outcome to which the technology is used.

In their study, (Venkatesh & Davis 2000) argued that PEOU directly and positively affects the adoption of IS. The significance of PEOU is supported by studies on self-efficacy done by (Bandura 1982). Bandura defined self-efficacy as opinions of how efficient a user can perform activities that are required to deal with probable circumstances and posits that in any situation, behaviour would be best anticipated by taking into account self-efficacy and outcome beliefs- related to the magnitude to which behaviour, once well executed, is thought to be connected to value incomes (Davis 1969).

2.3.5 Compatibility

Tan & Teo (2000) found that it is easier for a user to start using an innovation if the user believes that the innovation will be compatible with their job requirements and the overall value obtained from using the innovation. Internet banking has been viewed as a channel the needs of a current banking customer because with the advancement in technology, most banking customers have skills in computer usage and navigation and this increases the chances of the customer using the internet to carry out their transactions.

In a similar way, the more internet banking is viewed a tool that helps potential adopters manage their finances better, (Tan & Teo, 2000), the more likely it is that an individual with many bank accounts and needs more hands on access to the accounts in a faster and convenient way day or night will be willing and persuaded into adopting digital banking services.

2.3.6 Relative advantage

Studies have established that perceived relative advantage of an innovation affects uptake of an innovation. (Roger, 1985). Internet banking services gives bank customers an opportunity to better manage their multiple accounts. The benefits of digital banking to the customers are many starting from convenience, time saving, better control of one’s
finances. The many benefits that a bank customer has by using digital banking has the likelihood of persuading the bank customer to adopt these services due to the perceived relative advantage.

2.3.7 Trialability
According to Rogers (1995), an innovation which is complex and not user friendly, needs a lot of effort from the end user which discourages adoption of such an innovation. To increase chances of adoption of such an innovations, Rogers recommend that the potential adopter are given an opportunity to try the innovation on trail basis to first familiarize themselves with the innovation. This will make them more confident and more comfortable in using the innovation thus increasing the chances of the user adopting the innovation. Rogers (1995), adds that if customers are able to use an innovation on trail basis, they will be willing to use the technology and be more confident with using these technologies on full time basis.

2.3.8 Social Influences
Most people are easily influenced by the opinion, perceptions and attitudes of other people in the society. A study by Hartwick & Barki (1994) showed that social influences are important during the early stages of an innovation because users have very little information and experience which prevents them from developing attitudes. Chua (1980) found out that use’s friends, family and colleagues are the main groups that have the potential to influence the adoption of an innovation.

2.4 Conceptual Framework
Figure 2.1 depicts the relationship between the variables under studies. The independent variables like awareness of the alternative channels, trust and security of the cannel, ease of use, perceived usefulness have an impact on the uptake of digital banking services by customers in Kenya. Awareness of the importance of digital banking and also of the services that are available on offer is one of the variables in the research. The indicators of this variable include the dissemination of information by the financial institutions and also consumer training and advertisements to the potential users in order to empower
them. Trust and security of an innovation was also discussed as an influence towards the adoption of digital banking services by customers in Kenya.

Some aspects of trust will be considered in terms of system security and the financial risks that are involved and also that of service quality. This is of importance in that customers need the assurance that the system will not fail them when they are in use. Perceived usefulness had the indicators on the quality of information, the numerous alternatives that exist in the provision of digital banking services and of paramount importance the productivity that emanates from the employment of these services. These will in the long run, together with other variables be used to establish the level of acceptance or rejection of the services by banking institutions in the country by the target group. Perceived ease of use represents customers’ views towards navigation in terms of simplicity or complexity of system use in digital banking.

The dependent variable had its indicators as dictated upon by the independent variables. The indicators included additional income stream, decongestion of the banking halls referred to as the brick and mortar banking and opening up of banking opportunities to customers in far of areas thus financial inclusion for poverty alleviation.
Figure 2.1: Conceptual Model

**Level of Awareness**
- Information dissemination

**Customer Trust**
- Security
- Service Quality

**Perceived Usefulness**
- Information Quality
- Banking Alternative

**Perceived Ease of use**
- Convenience
- Navigation

**Independent Variables**

**Adoption of Digital Banking**
- Number of Transactions
- Decongestion in banks
- Additional income stream

**Dependent Variables**
CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter discusses the type of research design, the target population, sample and sampling procedures, data collection methods and the data analysis approaches used.

3.2. Research Design

The study used descriptive research. This type of research was the preferred design since it allows the researcher to describe record and analyze conditions of the respondents in their current state and also the study will aim at providing reliable and accurate statistical data which represents the actual current situation of the population. Kothari (2004) defines research design as the structure through which research is conducted and discusses the data collection methods to be used, measurement of the data collected and the data analysis procedures. Quantitative approach was then used to provide a summary of information.

3.3 Population of Study

Kothari (2004) defined the population of study as a combination of all people, services, elements, events or households that the researcher seeks to carry out a study to investigate. The population of this study comprised of all customers of commercial banks in Kenya. Due to cost and time challenges, it was not possible to collect data from each and every customer in Kenya, so the researcher targeted ten customers from each bank that was selected to represent each bank category. Based on assets and market share, banks in Kenya are divided into three groups. There are 6 large banks-(Top Tier 1) from which 3 banks were selected to represent this category called tier 1 banks. Tier 2 (medium-tier) have 16 banks from which 8 banks were selected randomly to represent them. Tier 3 (small-tier) has 21 banks from which 10 banks were also selected randomly to represent these category.

The customers at the banking halls were the best respondents for the study as they are directly affected and therefore provided valuable information on the adoption of digital banking that would not have been provided by the bank officials or other bank agents.
3.4 Sample Size

Sampling is the process of selecting some units from the population of study to carry out research about it in order to make generalizations about the population based on the findings of the sample. This means that a sample is a subset of elements contained in the population of interest (Orodho 2003). Half of the banks from each category were randomly selected to represent each tier. Ten customers from each of the banks selected were then sampled to find out the relationship between the variable. Systematic sampling was used to select the customers to interview from each of the three (3) tiers. A total of 210 customers were sampled to represent the population. The researcher approached every 5th bank customers in the banking hall in the selected banks as they waited to be served and administered the questionnaires to those customers that gave their approval.

3.5 Data Collection

This study employed questionnaires to collect data from customers. The questionnaire used was structured to ensure uniformity of responses and contained both open ended and closed ended questions. Five-point Likert scales with ends starting from strongly disagree to strongly agree was used to collect feedback from respondents. The questionnaires were handed in to customers in the banking hall after requesting for their permission and were collected back before the customer left the branch. For purposes of eliminating any biasness, every 5th customer was approached to fill in the questionnaire. To also ensure that there was uniformity, the researcher collected data during the peak hour and off peak hours and also visited both the busy branches and non-busy ones.

3.6 Data Analysis

The data collected was first edited and checked for any errors, omissions or any other inconsistencies to ensure completeness and accuracy of information filled in the questionnaires. The data was then coded and analyzed using Statistical package for social scientists (SPSS). The data was presented using tables, figures and bar charts. The study used both descriptive and inferential statistics to analyze the data while regression analysis was carried out to determine the relationship between the independent and dependent variables by carrying out chi square tests.
3.7 Validity and Reliability of Measurement Instruments

Validity is the ability of a measurement instrument to measure what it is supposed to measure. To ensure the validity of the data collected, the questionnaire was reviewed by the researcher colleagues and the researcher supervisor and panelists. In addition to that, the researcher ensured that all the respondents understood what each question was asking to improve on the quality and accuracy of the feedback and reduce on misunderstanding and inconsistencies.

Reliability is the ability of the research instrument to give the same results or data each and every time it is used (Mugenda & Mugenda 2003). In order to ensure reliability of the measurement instrument, a pilot study was done at Standard Chartered Bank, where the researcher works. 20 staff mainly from the frontline departments like sales, marketing and service departments participated and filled the questionnaire. The data was complied and analyzed to test the scale for internal consistency using the techniques Cronbach’s alpha. The value of Cronbach’s alpha obtained (0.867) indicated a high level of internal consistency for the study scale.
CHAPTER FOUR: DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents, interprets and discusses the research findings and associated issues. For systematic presentation of data, the chapter specifically analyzes the response rate, demographic characteristics of the participant, adoption of digital banking and the factors influencing the adoption of digital banking services.

4.2 Response Rate

The study had a sample size of 210 respondents from the entire representative sample. Out of the 210 questionnaires distributed to the respondents, 168 questionnaires were fully completed representing (80.0%) response rate.

The high response rate was attributed to the fact that the respondents were issued with the questionnaires as they queued in the banking halls and the researcher ensuring that they collected the questionnaires before they left the bank. However, the 42 (20%) incomplete questionnaires were attributed to some respondents were either semi-illiterate or were served before completing the questionnaire or were in a hurry to leave the bank after being served hence did not fully complete the questionnaire.

4.3 Demographic Characteristics of the Respondents

The study was interested with establishing the following characteristics of the respondents’ gender, age, highest level of education reached and employment status. These characteristics are discussed in this section.

4.3.1 Distribution of the Respondents by Gender

The study aimed at finding out the percentage of the respondents who were either male or female. Table 4.1 presents gender distribution findings.
Table 4.1 Distribution of the Respondents by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>90</td>
<td>53.57%</td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>46.43%</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100%</td>
</tr>
</tbody>
</table>

From the findings, 53.57% of the respondents were male while 46.43% were female. This shows that almost an equal representation of both genders. This shows a great improvement on the gender disparity findings of previous studies.

4.3.2 Age Distribution of the Respondents

The study aimed at determining the distribution of the respondents by age. The results were presented in Table 4.2

Table 4.2 Distribution of the Respondents by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-27 years</td>
<td>34</td>
<td>20.24%</td>
</tr>
<tr>
<td>28-37 years</td>
<td>87</td>
<td>51.79%</td>
</tr>
<tr>
<td>38-47 years</td>
<td>29</td>
<td>17.26%</td>
</tr>
<tr>
<td>Over 48 years</td>
<td>18</td>
<td>10.71%</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100%</td>
</tr>
</tbody>
</table>

The table 4.2 shows that majority 87 (51.79%) of the customers were aged 28-37years, followed by 18-27 years 34 (20.24%), 29 (17.26%) were aged 38-47years while the least 18 (10.71%) were aged over 48years. These results could be attributed to the fact that those in the 28-37 age group trust digital banking as they as belong to the digital age.
4.3.3 Highest Level of Education

The study was also aimed at finding out the highest level of education of the respondents to determine if it influences the adoption of digital banking platforms by customers in Kenya. The results are presented in Table 4.3.

**Table 4.3 Distribution of Respondents by Highest Level of Education**

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school</td>
<td>18</td>
<td>10.7%</td>
</tr>
<tr>
<td>Diploma</td>
<td>38</td>
<td>22.6%</td>
</tr>
<tr>
<td>Degree</td>
<td>56</td>
<td>33.3%</td>
</tr>
<tr>
<td>Masters</td>
<td>38</td>
<td>22.6%</td>
</tr>
<tr>
<td>PHD</td>
<td>18</td>
<td>10.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From Table 4.3, the results shows that majority of the respondents had degrees at 33.3% followed by those with diploma and masters both with 22.6%. The respondents with high school and PHD certification were the least with both scoring 10.7%. These results show a high numbers of the respondents had a degree education as they were born in the digital era and are computer savvy. The respondents who are highly educated could have reservations with digital banking as they are more versed with the traditional ways of banking.

4.3.4 Employment Status

The study was also interested in establishing the employment status of the respondents. It is likely to influence the adoption of digital banking as a new system of banking. The results are tabulated in Table 4.4.
Table 4.4 Distribution of the Respondents by Employment Status

<table>
<thead>
<tr>
<th>Employment status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>14</td>
<td>8.3%</td>
</tr>
<tr>
<td>Salaried</td>
<td>72</td>
<td>42.9%</td>
</tr>
<tr>
<td>Self employed</td>
<td>61</td>
<td>36.3%</td>
</tr>
<tr>
<td>Retired</td>
<td>21</td>
<td>12.5%</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Table 4.4 above shows that majority (42.9%) of the respondents were employed/salaried, followed by the self employed (36.3%), the retired at 12.5% while students were least at (8.3%).

4.4 Adoption of Digital Banking Services

Customers were also asked if they use the digital banking to do any banking activity such as checking account statement, loan status, transfer funds as and the results were tabulated in Table 4.4 below.

Table 4.5 Digital Usage

<table>
<thead>
<tr>
<th>Use of digital banking</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>105</td>
<td>62.5%</td>
</tr>
<tr>
<td>No</td>
<td>63</td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From the results in Table 4.5 above, majority of customers use digital banking at 62.5% while 37.5% do not use any form of digital banking platforms thus still transacting using the
traditional means—visiting branches and doing the transactions over the counter.

4.4.1 Type of Digital Banking Used

In this study digital services were included mobile banking, online banking, ATM (cash withdrawal and deposit), agency banking, client contact centre and mobile applications. These digital services were investigated and the results are tabulated in Table 4.6.

Table 4.6 Type of Digital Banking used

<table>
<thead>
<tr>
<th>Type of Digital Banking</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Banking</td>
<td>46</td>
<td>27.4%</td>
</tr>
<tr>
<td>Online Banking</td>
<td>27</td>
<td>16.1%</td>
</tr>
<tr>
<td>ATM Banking</td>
<td>50</td>
<td>29.8%</td>
</tr>
<tr>
<td>Agency Banking</td>
<td>18</td>
<td>10.7%</td>
</tr>
<tr>
<td>Mobile Applications</td>
<td>15</td>
<td>8.9%</td>
</tr>
<tr>
<td>Client Contact Centre</td>
<td>12</td>
<td>7.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From the results above, majority of the customers (29.8%) used ATM services to either withdrawal or deposit cash or deposit cheques. Mobile banking closely followed mobile banking at 27.4% and online banking at 16.1%, agency banking at 10.7%, mobile applications at 8.9% and contacting the contact centre at 7.1%. ATM utilization is seen to be the most commonly used ad this could be attributed to the fact that it was one of the early digital platforms to be introduced to the Kenyan market by banks. Internet banking has slightly lower rate of usage mainly due to the security concerns by customers.
4.4.2 Importance of Digital Banking
The respondents were asked their opinions on how important they viewed digital banking as a system of carrying out their banking transactions. The results are as shown below on Table 4.7

Table 4.7 Opinions on Digital Banking

<table>
<thead>
<tr>
<th>Type of Digital Banking</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vital</td>
<td>32</td>
<td>19.1%</td>
</tr>
<tr>
<td>Essential</td>
<td>38</td>
<td>22.6%</td>
</tr>
<tr>
<td>Desirable</td>
<td>82</td>
<td>48.8%</td>
</tr>
<tr>
<td>Cannot say</td>
<td>16</td>
<td>9.5%</td>
</tr>
<tr>
<td>Any other</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>168</td>
<td>100%</td>
</tr>
</tbody>
</table>

Respondents were asked their opinions on digital banking. This question is key to understand the perceptions of customers on digital innovations. It aids the banks to understand the necessity of the digital platforms availed to customers. 48.8% of the respondents felt that digital banking is desirable, 22.6% thought it is essential, 19.1% vital while 9.5% could not say what they thought about digital banking. Digital banking as a delivery channel is not seen as vital or essential from the feedback we got from our respondents. It is however viewed as desirable delivery channel. This shows that there is still more room for growth for this channel and banks has to ensure their customers embrace these digital channels of banking to enable growth in the industry as a whole.

4.4.3 Factors Hindering Adoption of Digital Banking
This question aimed at finding out some of the factors hindering the non-users from adopting digital banking and also find out the challenges that the users encountered that hindered them from fully adopting all the platforms available. The results are shown on Table 4.8.
Table 4.8 Factors Hindering Adoption of Digital Banking

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility of digital outlets</td>
<td>10</td>
<td>5.95%</td>
</tr>
<tr>
<td>Technology capability</td>
<td>40</td>
<td>23.81%</td>
</tr>
<tr>
<td>Costs associated with digital banking</td>
<td>10</td>
<td>5.95%</td>
</tr>
<tr>
<td>Safety and security issues</td>
<td>68</td>
<td>40.48%</td>
</tr>
<tr>
<td>Lack of awareness of digital technologies</td>
<td>30</td>
<td>17.86%</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>5.95%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

From Table 4.8 above, when the respondents were asked this question, the 37.5% of the non users gave the following reasons for not using these alternative channels, 40.48% said that the main factor is the safety and security concerns of using these innovations, 23.81% said their ability to use the digital innovations like internet, mobile and the applications as the main factor, 17.86% said they were not aware of the digital banking technologies or their benefits, banks need to create more awareness and actively promote this service, 5.95% said they could not easily access the digital banking outlets like ATMs, computers with the capability of accessing the applications, mobile with the capability to access mobile banking while 5.95% indicated that the cost associated with the digital banking services like acquiring of computers, mobile phones or the charges of transacting using digital banking.

4.4.3 Factors Encouraging the Use of Digital Banking

This question intended to find out the factors that would attract non-users into adopting digital banking. 40.48% said improved security will encourage them. 29.76% said that they would want banks to provide free training on how to use the channels because they will feel more confident in how to navigate the system and carry out their transactions, 17.86% of the
non-users revealed that they were not aware of the benefit of the digital technologies and if they were made aware, they will adopt the technologies. 5.95% also if the digital technologies were made available to them, i.e. free mobile phones; they will consider adopting digital services. Under the others, non users said that banks should increase the transactions that can be carried out over the digital banking platforms while others indicated better support from the bank and reduction in the cost of transacting digitally as compared to the traditional ways, they will consider adopting digital technologies.

**Table 4.9 Factors Encouraging Adoption of Digital Banking**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessibility of digital outlets</td>
<td>10</td>
<td>5.95%</td>
</tr>
<tr>
<td>Free Skills Training</td>
<td>50</td>
<td>29.76%</td>
</tr>
<tr>
<td>Better Safety and security</td>
<td>68</td>
<td>40.48%</td>
</tr>
<tr>
<td>Lack of awareness of digital</td>
<td>30</td>
<td>17.86%</td>
</tr>
<tr>
<td>technologies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
<td>5.95%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>168</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**4.5 Factors Influencing Adoption of Digital Banking**

The objective of the study was to find out the factors that influence the adoption of digital banking services in Kenya. The factors were analyzed and the respondents’ feedback is as shown for each below.

**4.5.1 Relative Advantage and adoption of digital banking services**

Respondents were asked questions to gauge the influence of Relative advantage on the adoption of digital banking services. From the analysis of the data and as summarized in Figure 4.5 below, majority of the respondents strongly agreed (30.4%) that the relative advantage is a key factor that influenced the adoption of digital banking, 26.7% agreed while 16.7% strongly disagreed and 13.1% disagreed. This implies that for majority of
customers, the digital banking has to have relative advantage over the traditional means of banking for them to adopt and use the technologies.

![Relative Advantage](image)

**Figure 4.1: Relative Advantage and Adoption of Digital Banking Services**

**4.5.2 Compatibility and Adoption of Digital Banking Services**

Respondents were asked if they considered compatibility to their lifestyle of the digital banking services as a factor that influences their adoption and utilization of digital banking services. The results are as shown on Figure 4.2.

![Compatibility](image)

**Figure 4.2: Compatibility to Lifestyle and Adoption of Digital Banking Services**

From the data in Figure 4.2 above, majority of the respondents strongly disagreed (30.3%)
did not consider it to be a key factor that influences their uptake of the digital banking services. 17.6% disagreed, while 22% agreed and 14.0% agreed it to be a factor. Banks in Kenya have to make sure their customers are aware how compatible digital banking services are to their lifestyle as a selling point to increase the adoption.

4.5.3 Complexity and Adoption of Digital Banking Services
Respondents were asked if complexity was a factor that influenced the adoption of digital banking services. The results are show in Figure 4.3.

![Figure 4.3: Complexity and Adoption of Digital Banking Services](image)

From the results in Figure 4.3, 30.4% strongly agreed and 23.2% agreed that the complexity of the digital platform was a key factor that influenced their adoption of digital banking. 13.7% were neutral, 14.9% disagreed while 17.9% strongly disagreed. The result shows that banks must strive to make the digital banking platforms user friendly, easy to use and navigate for customers to make use of them otherwise, they will continue transacting through the traditional means.

4.5.4 Trialability and Adoption of Digital Banking Services
Respondents were asked if the ability to try the digital platforms before utilizing to transact using them was a factor that influenced the adoption of digital banking services. The results are show in Figure 4.4.
Figure 4.4: Trialability and Adoption of Digital Banking Services

The results from Figure 4.4 above shows that majority of the respondents agreed that if they will be given an opportunity to try the new digital banking platforms, they will be more willing to adopt the new digital banking platforms with results being 24.4% strongly agree, 35.1% agree, 11.9% neutral, 16.7% disagree, 11.9% strongly disagree. This means banks should give their customers an opportunity to try the digital platforms so that they can get used to them and feel confident enough to adopt them.

When the respondents were asked if the perceived ease of use of the digital banking systems influenced their decision to adopt the digital banking system, the findings for the study are shown in Figure 4.5
From the results above, 28.6% strongly disagreed, 26.2% agreed, 12.5% were neutral, 14.9% agreed, 17.9% strongly agreed with the question they were asked if they believed that interaction with digital banking services does not require a lot of effort or was easy to use, this means that customers of majority of the banks believe that using digital banking technologies is difficult to use. Banks should take up this key finding to come up with strategies of changing the customer perceptions on the digital banking as an alternative to traditional banking.

**4.5.6 Perceived Usefulness and Adoption of Digital Banking Services**

Respondents were asked this question on perceived usefulness of the digital banking systems to determine if this factor influenced their perception of this alternative banking channel. The results are as shown in Figure 4.6.
Figure 4.6: Perceived Usefulness and Adoption of Digital Banking Services

From the Figure 4.6 above, majority of the respondents perceive usefulness to be an important factor that affects their decision to adopt digital banking technologies. 35.1% strongly agreed, 43.5% agreed while 4.2% were neutral, 10.7% disagreed and 6.5% strongly disagreed. This shows that banks should promote the usefulness of digital banking to their customers e.g. through time savings benefits, convenience, better financial planning and the many other benefits of using digital banking systems.

4.5.7 Perceived Usefulness and Adoption of Digital Banking Services

Respondents were asked this question to find out if family, friends and colleagues perceptions influenced their decision to adopt digital banking services. The results are as shown in Figure 4.7
From the findings above, majority of the respondents did not believe that social factors like family, friendly and colleagues influenced their perception towards digital banking. 33.9% strongly disagreed, 35.1% disagreed, 6% were neutral, 14.9% agreed while 10.1% strongly agreed. This may be due to the fact that family, friends and colleagues may influence respondents to join a certain bank but may not necessarily influence them in selecting how to carry out their banking transactions.

4.5.8 Security/Trust and Adoption of Digital Banking Services

Respondents were asked this question how important security and trust of the digital systems of banking influenced their decision to adopt digital banking services. The results are as shown in Figure 4.8.

**Figure 4.7: Social Influences and Adoption of Digital Banking Services**

From the findings above, majority of the respondents did not believe that social factors like family, friendly and colleagues influenced their perception towards digital banking. 33.9% strongly disagreed, 35.1% disagreed, 6% were neutral, 14.9% agreed while 10.1% strongly agreed. This may be due to the fact that family, friends and colleagues may influence respondents to join a certain bank but may not necessarily influence them in selecting how to carry out their banking transactions.

4.5.8 Security/Trust and Adoption of Digital Banking Services

Respondents were asked this question how important security and trust of the digital systems of banking influenced their decision to adopt digital banking services. The results are as shown in Figure 4.8.
From the results in Figure 4.9 above, 41.1% of the respondents strongly disagreed with the belief that they trusted the banking systems used for transacting using the digital banking meaning they did not believe that it was safe to make payments online, 34.5% disagreed, 3% were neutral while minority fully trusted the systems with 8.9% agreeing while 12.5% strongly agreed i.e. trusted them.

4.5.9 Awareness and Adoption of Digital Banking Services

Respondents were asked questions to find out if they were aware of the capabilities and benefits of the digital banking systems to determine if awareness was a factor that influenced their adoption of digital alternative banking channel. The results are as shown in Figure 4.9.
From the results in Figure 4.9 above, majority of the respondents were not aware of the digital banking services provided by their banks or the benefits of using digital banking technologies. 36.9% strongly disagreed, 33.9% disagreed to having information on the digital banking platforms and their benefits while 1.8% were neutral while 16.1% and 11.3% agreed to having received enough information on the digital banking services and their benefits.

**4.6 The Relationship between Independent and Dependent Variables**

These tests were carried out to find out if there is relationship between the independent variables and the dependent variables. The results for the findings for each of the factors are discussed in details below.

**4.6.1 Gender of Respondents and Adoption of Digital Banking Services**

P= 0.071 is more than 0.05 means that there is no significant relationship between the gender of respondents and the adoption of digital banking. From the data analysis, there were almost the same number of female and male respondents with 53.57% male and 46.43% female thus concluding that gender is not a factor that influences adoption of digital banking services.
Table 4.10 Chi-Square Test – Relationship between Gender and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.271</td>
<td>1</td>
<td>.071</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.287</td>
<td>1</td>
<td>.070</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.251</td>
<td>1</td>
<td>.071</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.2 Age of Respondents and Adoption of Digital Banking Services

P = 0.021 is less than 0.05 means that the chi-square is significant and indicates there is a relationship between age and the adoption of digital banking. This is also supported by data analysis results where results showed age has an effect on the use of digital banking. The results imply that majority of the internet banking users are middle aged i.e. 28-37 years with 51.79%.

Table 4.11 Chi-Square Test – Relationship between Age and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>34.429</td>
<td>3</td>
<td>.021</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>33.418</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>18.234</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.3 Education Level of Respondents and Adoption of Digital Banking Services

P = 0.036 is less than 0.05 means that there is significant relationship between education level of the respondents and the adoption of digital banking. 22.6% of the users had diplomas, 33.3% had degrees, and 22.6% had masters while 10.7% had post graduate degrees. This also shows that majority of the users were educated which increased the numbers of the digital banking services users. This supports the hypothesis that education level positively influences
the adoption of digital banking services

Table 4.12 Chi-Square Test – Relationship between Education Level and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>105.020a</td>
<td>4</td>
<td>.036</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>127.991</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>11.819</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.4 Employment Status of Respondents and Adoption of Digital Banking Services
P = 0.044 is less than 0.05 which means there is a significant relationship between employment status of the respondents and the adoption of digital banking. This is supported more with the previous findings which showed majority of the respondents was salaried with 42.9% and self employed being at 36.3%. This is supported by the fact that these categories of users require convenience and a lot of time saving which attracts them to adopt digital banking.

Table 4.13 Chi-Square Test – Relationship between Employment and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>8.079a</td>
<td>3</td>
<td>.044</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>9.008</td>
<td>3</td>
<td>.029</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>6.678</td>
<td>1</td>
<td>.010</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.5 Relative advantage and Adoption of Digital Banking
P = .020 is less than 0.05 which means there is significant relationship between perceived relative advantage and adoption of digital banking. 57.1% of the digital banking users were connected because they perceived to have convenience and save on time.
Table 4.14 Chi-Square Test – Relationship between Relative Advantage and the Use of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>18.174*</td>
<td>8</td>
<td>.020</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>18.754</td>
<td>8</td>
<td>.016</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>1.512</td>
<td>1</td>
<td>.219</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.6 Compatibility and Adoption of Digital Banking

P-value is less than 0.05 (p=.000) means there is a strong relationship between compatibility and adoption of digital banking. Majority of the respondents however indicated that they did not think digital banking was compatible with their lifestyle. 30.3% disagreed while 17.6% strongly disagreed, 16.1% were neutral meaning compatibility to their lifestyle was not of much of significance.

Table 4.15 Chi-Square Test – Relationship between Compatibility and the Use of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>42.077*</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>43.704</td>
<td>8</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>21.523</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.7 Complexity and Adoption of Digital Banking

The findings (Table 4.16, p=.020) means there is significant relationship between perceived complexity of digital banking and adoption.53.6% of the users agreed that digital banking technologies are difficult to use while 23.8% of the non users indicated that technology capability and navigation was one the key factor that discouraged them from adopting hence perceived complexity negatively influences digital banking adoption.
Table 4.16 Chi-Square Test – Relationship between Complexity and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.765</td>
<td>8</td>
<td>.020</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>15.619</td>
<td>8</td>
<td>.048</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>6.969</td>
<td>1</td>
<td>.008</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.8 Trialability and the Adoption of Digital Banking Services

The findings (Table 4.17, p=.000) means there is significant relationship between trialability of digital banking and adoption. 59.5% of the users agreed that being given an opportunity to try the digital banking services will encourage them to fully utilize the technologies while the non users also indicated that if they will be given a chance to try the technologies, they will be willing to adopt them hence trialablity positively influences digital banking adoption.

Table 4.17 Chi-Square Test – Relationship between Trialability and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>28.343</td>
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<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>27.553</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>23.384</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.9 Perceived Ease of Use and Adoption of Digital Services

P-value of (p=0.000) is less than 0.050 meaning there is significant relationship between perceived ease of use and the adoption of digital banking services. When respondents were asked if this factor influenced their adoption behavior, 54.8% agreed that these services were not easy to use while 23.8% of the non users also indicated that if they are
trained on how to use the systems, they will be willing to adopt the digital services hence perceived use positively influences digital banking adoption.

Table 4.18 Chi-Square Test – Relationship between Perceived Ease of Use and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>30.991</td>
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<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>31.640</td>
<td>8</td>
<td>.000</td>
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<tr>
<td>Linear-by-Linear</td>
<td>19.797</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.10 Perceived Usefulness and the Adoption of Digital Banking Services

P-value of (p=0.006) is less than 0.050 meaning there is significant relationship between perceived usefulness and the adoption of digital banking services. When respondents were asked if this factor influenced their adoption behavior, 78.6% agreed that these services were useful in that they saved on time and improved convenience of banking while only 17.2% of the respondents disagree with the services being useful hence perceived usefulness positively influences digital banking adoption.

Table 4.19 Chi-Square Test – Relationship between Perceived Usefulness and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>14.489</td>
<td>4</td>
<td>.006</td>
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<tr>
<td>Likelihood Ratio</td>
<td>16.333</td>
<td>4</td>
<td>.003</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>.024</td>
<td>1</td>
<td>.878</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.11 Social Influences and Adoption of Digital Banking Services

P-value of (p=0.334) is higher than 0.10 meaning there is no significant relationship between social influences and the adoption of digital banking services. When respondents
were asked if this factor influenced their adoption behaviour, 69% disagreed to friends, family and colleagues influencing their decision to adopt the digital services while only 25% indicated that friends, family and colleagues influenced their decisions thus negatively influencing the adoption of digital banking services.

Table 4.20 Chi-Square Test – Relationship between Social Influences and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>4.572^a</td>
<td>4</td>
<td>.334</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.252</td>
<td>4</td>
<td>.262</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>1.986</td>
<td>1</td>
<td>.159</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.6.12 Security and Trust and Adoption of Digital Banking

P value of (p=.001) means there is significant relationship between perceived risk due to security and safety issues and adoption of digital banking. 40.5% of digital banking non-users raised security concerns for their fear to adopt internet banking while 76% of users did not fully trust the security of the digital services to make payments hence negatively influencing adoption.

Table 4.21 Chi-Square Test – Relationship between Security and Trust and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>18.774^a</td>
<td>4</td>
<td>.001</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>19.190</td>
<td>4</td>
<td>.001</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>15.898</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4.6.13 Awareness and Adoption of Digital Banking

P value of (p=.001) means there is significant relationship between awareness of the digital banking technologies and their benefits, and the adoption of digital banking. 18% of the non-users respondents said that if they were aware of the digital platforms and their benefits, they will be willing to adopt digital banking while 70% of the users said they did not receive enough information on the various digital banking services provided by their banks or their benefits.

Table 4.22 Chi-Square Test – Relationship between Awareness and the Adoption of Digital Banking

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>22.057*</td>
<td>5</td>
<td>.001</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>21.551</td>
<td>5</td>
<td>.001</td>
</tr>
<tr>
<td>Linear-by-Linear</td>
<td>11.731</td>
<td>1</td>
<td>.001</td>
</tr>
<tr>
<td>Association</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>N of Valid Cases</td>
<td>168</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.7 Summary of Chapter

From the findings, the main demographic factors that affected the adoption of digital banking were education levels, age and the education levels of respondents are the most influential demographic variables affecting adoption of digital banking services. These factors were also found to have significant relationship with the uptake of digital banking. Most of the users of these alternative channels were found to be young, well educated and either employed or self-employed.

The research findings also found out that customer attitudes and perceptions towards digital banking also influenced their adoption. The factors which had a positive relationship with the uptake were perceived ease of use, complexity, relative advantage and usefulness among others. The study also found out that social influences did not influence the adoption of digital banking technologies. These social factors among others are family, friends and colleagues. Most of the respondents did not consider the opinions of their family, friends and colleagues in decisions concerning uptake of digital banking technologies.
CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the study findings, draws conclusions and makes recommendations and suggestions for further studies.

5.2 Summary of Findings

The study had a response rate of 80% which is a good response rate to work with. The gender distribution for the study was fairly distributed with, 53.57% of the respondents being male while 46.43% were female. The data from the research showed that gender did not have any effect on the uptake of digital banking services. Age on the other hand was found to have an impact on digital services uptake. Majority of the respondents (51.79%) were from the age group of 28-37 years meaning the adoption of digital banking technologies is higher for the middle aged consumers.

The study found out that 62.5% of the respondents used digital banking services while 37.5% did not adopt/used the digital services. Among the 62.5% users, majority of them mostly used ATM services (29.8%) to withdraw cash, deposit cheques and cash, mobile banking (29.8%), internet banking (16.1%) agency banking with 10.7% while fewer users used mobile applications and client contact centers. The increased usage of ATMS could be attributed to the fewer risks associated with them and also the fact that they were the first ones to be introduced into the Kenyan market. Contact centre calling were the least used mainly due to the fact that consumers still prefer face to face interactions with the bank staff and also the costs associated with calling the contact caners. Despite the findings above, respondents still found digital banking services to be desirable(48.8%) meaning with skills and safety issues addressed, they will want to use these services to transact while 22.6% thought they were essential, 19.1% thought they were vital while 9.5% could not say what they thought of them. These findings show the amount of work that banks need to put into promoting digital banking awareness to the market to increase and convert the non-users who accounted for a huge part of those who could not say anything about digital banking roles.
When the non-users were asked some of the factors that hindered the adoption of digital banking services and the challenges that the users faced, the results showed that majority of the respondents (40.48%) said security and safety of the transactions was a key factor, followed by lack of technological ‘know how’ i.e. respondents were not confident with how to use the digital banking services (23.81%), while others (17.86%) indicated that they did not know the services available on the digital banking platforms or the benefits of transacting using digital means. When the non-users were asked what could encourage them to adopt the digital services, improved security (40.48%), free skill straining (29.76%), improved awareness of what is offered through the digital banking platforms (17.86%) and accessibility to the digital outlets (5.95%) were the main factors that would encourage them to adopt digital banking services.

The study also found out that majority of the respondents believed that digital banking had relative advantage compared to the traditional methods however; they also did not believe that they technologies were compatible with their lifestyle. They also thought that the systems were not easy to use, were complex and did not fully trust the security and safety of the platforms. They also on the other believed that the digital platforms were useful and if given the opportunity to try, they will be more willing to use these channels frequently. They also indicated that the banks need to increase the public knowledge of these technologies and their benefits to the end users.

Previous research done on the subject has shown that the level of education has an impact on the adoption of digital banking services. These findings concur with the studies. Majority of the respondents were learned that is 22.6% had diplomas, 33.3% degrees, and 22.6% with masters while 10.7% had post graduate degrees. This also shows that majority of the users were educated which increased the numbers of the digital users. Studies have also shown that occupation had an influence on the adoption of digital banking services. in this study most users were either employed or self-employed and further analysis showed there was a strong relationship between occupation and adoption of digital banking services with a significant level of 0.44.

Attitude and perception also influences the uptake of digital banking services in Kenya. From the study, relative advantage compatibility, complexity, Trialability, Perceived ease
of use, Perceived usefulness, awareness, security and safety all had strong relationship with the adoption of digital banking services while social influences with a significance level of 0.334, had no influence on the adoption of digital banking technologies. The study showed that banks had a lot to do in order to increase the adopters of digital banking technologies by increasing awareness, improving security and safety, increasing the relative advantage of the systems, improving accessibility of the digital outlets and also by providing free skills training to the non-users so that they can get an opportunity to learn how to navigate the systems and get trial opportunities.

5.3 Conclusion

The objective of this study was to find out the factors affecting the adoption of digital banking services by commercial banks customer. These factors were identified. Demographic factors like education level, age and occupation/employment status were found to have an impact on the adoption of digital banking platforms in Kenya. Consumer perception factors like relative advantage, perceived ease of use, perceived usefulness, complexity, perceived security risks among others influenced the adoption while for those who perceived otherwise, did not adopt digital banking. Social influences like friendly, family and colleagues did not influence the consumer behavior in adopting these alternative banking channels.

5.4 Recommendations

Kenyan commercial banks need to increase the awareness of digital banking services. These alternative banking services are relatively new in Kenya, banks need to endure there is extensive promoting awareness of the alternative channels using all the forms of awareness. This will be useful to introduce these useful services to a wider audience and educate customers on the availability of digital banking channels and their benefits to the them.

Banks also need to improve on the security of the digital banking systems so that customers trust these channels during their day to day truncations. Banks should come up with more security measures such as verification codes, Personal Identification Numbers, One Time Processing codes and also the connection of the customer bank account to their
mobile phones and emails so that customers can feel they have better control of their transactions. Additionally, they should also educate customers on how to ensure they increase the safety of their accounts e.g. by ensuring codes used are not shared, using banks’ websites to access online banking among others.

The government and the industry regulator should also support commercial banks effort in promotion of digital banking services, e.g. through restricting transactions which can be done over the counter or by coming up with laws and regulations to prosecute fraudsters and online hackers.

5.5. Suggestions for Further Research

The following are areas that could be considered for future research:

Studies to can be done to find out the business value of digital banking to commercial banks in Kenya and also a study can be done to include the commercial bank staff in finding out the factors that influence the adoption of digital banking services by customers among commercial banks in Kenya. Bank staff can provide useful insights on the uptake rates since they interact with the customers on daily basis.
REFERENCES


Davis, F. D. (1986). A Technology Acceptance Model for Empirically Testing New End-
User Information Systems: Theory and Results. MIT, Boston.


APPENDICES

APPENDIX I: QUESTIONNAIRE

Factors influencing the adoption of digital banking services in Kenya. For the purpose of this study, digital banking is limited to online, ATM, mobile, Cheque Deposit Machines, Queue Management System, Token, Payroll system, Mobile Applications, Customer Care Centres/Call Centres and Agency Banking

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Gender  Male ( )    Female ( )

2. Age in years a) 18 – 27 ( )  b) 28 – 37 ( )  c) 38 – 47 ( )  d) Over 48 ( )

3. Highest Level of Education
   a) High school ( )  b) Diploma ( )  c) Degree ( )  d) Master ( )  e) PHD ( )

4. Employment Status
   a) a)Student ( )
   b) Salaried ( )
   c) Self Employed ( )
   d) Retirees ( )
   e) Others, please specify ________________________________

SECTION B: ADOPTION OF DIGITAL BANKING

5. Do you use the Digital banking to do banking transactions such as checking account statement, loan status, transfer funds etc?
   Yes ( )  No ( )
6. If no to question 5 above, kindly state why? (You can tick more than one option)

a) Accessibility of digital outlets (    )

b) Challenges in use of digital banking technology (    )

c) Costs incurred in digital banking (    )

d) Safety and security issues (    )

e) I do not know about digital banking

f) Any other ____________________

7. In general, what is your opinion on Digital Banking as a new system of delivering banking services?

a) Vital (  )

b) Essential (  )

c) Desirable (  )

d) Cannot say exactly (  )

e) Any other (Please specify)

8. Which among the following Digital banking modes do you use to transact through?

<table>
<thead>
<tr>
<th>Service Provided</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile banking</td>
<td></td>
</tr>
<tr>
<td>Online Banking</td>
<td></td>
</tr>
<tr>
<td>ATM banking</td>
<td></td>
</tr>
<tr>
<td>Agency Banking</td>
<td></td>
</tr>
<tr>
<td>Client Contact Centre</td>
<td></td>
</tr>
<tr>
<td>Mobile Applications</td>
<td></td>
</tr>
</tbody>
</table>
SECTION C: FACTORS INFLUENCING ADOPTION OF DIGITAL BANKING

9. Will you engage in digital banking service if the bank offers: (you can tick more than one choice?)
   a) Free training on use of digital banking
   b) Cheaper costs of using digital banking technologies
   c) Greater security and assurance of safety of digital banking technologies
   d) Other ________________________________

10. For this section read each statement carefully and for each statement check the box applicable to your opinion.

<table>
<thead>
<tr>
<th>Relative advantage</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe Digital banking allows one better control over his/her bank account</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital banking is a convenient way to do banking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Compatibility</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital banking is suitable for my lifestyle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital banking fits well with managing finances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complexity</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>------------</td>
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</tr>
<tr>
<td>I believe to use the digital for banking purposes involves a lot of thinking.</td>
<td></td>
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</tr>
<tr>
<td>I believe it is not easy to conduct banking using the digital.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trialability</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe if people are given opportunity to try out digital banking most people will eventually adopting it.</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived Ease of Use</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that interaction with digital banking services does not require a lot of effort.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that digital banking is easy to use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Perceived Usefulness</th>
<th>Strongly</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------</td>
<td>---------</td>
<td>--------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>I think that digital banking services are useful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that digital banking services would enable me to save time</td>
<td></td>
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</tr>
<tr>
<td>I think that digital banking services would make it easier for me to carry out my financial</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Norms</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>If my friends use digital banking I will definitely use it also.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If colleagues at work use digital banking I will definitely use it also.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the people I respect use digital banking I will definitely use it also.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security and Trust</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
</tbody>
</table>
I fully trust the technology (internet, mobile phone and point of sale readers) used to deliver digital banking services

I believe Digital Banking is secure for making payments

<table>
<thead>
<tr>
<th>Awareness</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have received enough information about the benefits of using digital bank services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have generally received enough information about digital banking services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX II: LIST OF BANKS IN KENYA**

| 1.            | 2.                | 3.            | 4.            | 5.            | 6.            | 7.            | 8.            | 9.            | 10.           | 11.            | 12.           | 13.            | 14.          | 15.          | 16.          | 17.          | 18.          | 19.          | 20.          | 21.          | 22.          | 23.          | 24.          | 25.          | 26.          | 27.          | 28.          | 29.          | 30.          | 31.          | 32.          | 33.          | 34.          | 35.          | 36.          | 37.          | 38.          | 39.          | 40.          | 41.          | 42.          |
|---------------|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|--------------|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|