

ASSOCIATED RISKS AND INTERNET BANKING USE IN UGANDA.

BY

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**A RESEARCH REPORT SUBMITTED TO THE COLLEGE ECONOMICS
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UNIVERSITY**

JUNE, 2019

DECLARATION

I **Nantaba Cate Blick**, declare to the best of my knowledge that, this research report is my original work which has never been published and/or submitted for any award in any other University.

Signed.....

NANTABA CATE BLICK

Date:.....22/06/19.....

Mr. Timbirimu Micheal

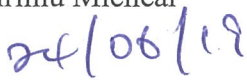
Date:.....

APPROVAL

I certify that this research report has been done under my supervision and is now ready to be submitted to the Kampala International University with my approval.

Signed.....

Mr. Timbirimu Micheal

Date:.....

DEDICATION

This work is dedicated to my parents, my brothers and sister, for their help towards the accomplishment of this study.

ACKNOWLEDGEMENT

In the name of the Almighty God I do thank Him who has made everything possible for me to complete this research report.

My special appreciation goes to the Management of Kampala International University for rendering me this opportunity to pursue a Bachelors Degree of business Administration, I will always be grateful for your generosity.

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May the Almighty Allah reward you abundantly

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ABSTRACT

The purpose of the study was to establish the relationship perceived risk, trust, perceived ease of use, perceived usefulness, and internet banking adoption. The study adopted a cross sectional design which was quantitative and qualitative in nature. It involved descriptive and analytical research designs. The study sample comprised of 384 bank customers in the Kampala, who were selected through simple random sampling. The data was tested for reliability, analyzed using SPSS and results presented based on the study objectives. Results revealed a significant negative relationship between Perceived Risk and Trust, and Internet Banking adoption. This means that high levels of Perceived Risk will lower the level of customer trust in the internet banking systems and will also inhibit Internet Banking Adoption. The results also revealed a positive significant relationship between Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption. If customers find the Internet banking systems easy to use, they will consider them useful thus adopting Internet Banking. Finally Trust was found to have a positive and significant relationship on Perceived Usefulness. Bank customers will consider those internet banking systems they trust as useful. The study concluded that Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness significantly affect internet banking adoption. Therefore the researcher recommended that commercial banks in order to increase adoption of internet banking they should ensure that their offer is perceived risk free, easy to use, useful and also trusted.

CHAPTER ONE

INTRODUCTION

1.1 Background

Intense competition has forced the financial sector to become creative and devise new means of serving their customers. This has necessitated commercial banks to come up with new ways of reaching their customers, and the most recent one is internet banking.

Internet banking involves consumers using the Internet to access their bank and account, to undertake banking transactions (Sathye, 1999). Pikkarainen, Karjaluoto, and Pahlila, (2004) reveal that internet banking as the Internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments.

Banks' Web sites that offer only information on their pages without possibility to do any transactions are not qualified as online banking services.

Internet banking services allow customers to carry out a range of banking activities, such as managing bank accounts and transactions without leaving their desks (Weir, Anderson, and Jack, 2006). They are a very cost-efficient way for banks to provide their customer services (Yakhlef, 2001). Due to the advantages for both banks and consumers of internet banking services in the financial market, commercial banks such as Standard Chartered Bank, Barclays Bank, Centenary Bank, Stanbic bank among others, have adopted the innovation to better serve their customers. However customer adoption of internet banking in Uganda has not yet reached a high level, which most banks would like to see. Mutebile, (2007) notes that Ugandan bank customers have been slow at adopting internet banking. Adoption of such technologies has not only been slow in internet banking but (Walugembe, 2010) observes in an on line shopping perspective, that Ugandan customers have been very slow at adopting on line shopping. Though retailers have implemented on line shopping, a few customers are using it. Anecdotal evidence indicates that most banks in Uganda that offer internet banking have registered few customers using the service. By the end of 2009 and to date, for example Stanbic bank out of 2.3 million customers had 0.022%, Standard chartered bank out of 700,000 had 0.06%, Barclays bank out of 1.1 million had 0.027%, Crane bank out of 600,000 total customers had 0.042%, Eco Bank out of 200,000 had 0.06%, Bank of Africa out of

400,000 had 0.055%, Equity bank out of 1.15 million had 0.017% and DFCU out of 1.1 million had 0.023%, customers who applied for internet banking.

Internet banking adoption common concerns include the performance and security of banking transactions, as well as the confidentiality of personal account data (Alda's-Manzano, Lassala-Navarre', Ruiz-Mafe' and Sanz-Blas 2009). These concerns increase the level of perceived risk, which is further exacerbated by declining levels of trust in banks thus leading to low levels of internet banking adoption. Namirembe (2007) asserts that Ugandan bank customers have adopted internet banking at a very slow rate. She identifies security concerns to increase the customer's risk leading to distrust of internet banking leading to a low adoption rate. Most Ugandans prefer the gold cheque and cash to electronic means of payment because they don't find these electronic means to be important and not easy to use (Abaasa, 2007).

1.2 Statement of the Problem

Internet banking enables the customer to access bank services from everywhere in the world. Although Ugandan bank consumers have had an interest in internet banking services and tended to have various financial sources or tools for money transactions, they have not quickly accepted such technologies. They have been very slow to adopt the technology innovations such as internet banking and they do carry around sums of cash that are too large for safety. The slow rate of adoption of internet banking in Uganda could be attributed to lack of trust, perceived risk, poor perceptions on usefulness and ease of use of the system by the customers.

This research therefore seeks to establish how trust, perceived risk, and perceived usefulness and ease of use affect internet banking adoption in Uganda.

1.3 Purpose of the Study

The purpose of the study is to establish the relationship between perceived risk, trust, perceived ease of use, perceived usefulness, and internet banking adoption.

1.4 Research Objectives

1. To establish the relationship between perceived risk, trust and Internet banking adoption.
2. To establish the relationship between perceived ease of use, perceived usefulness and

internet banking adoption.

3. To establish the relationship between trust and perceived usefulness.

1.5 Research Questions

1. What is the relationship between perceived risk, trust and Internet banking adoption?
2. What is the relationship between perceived ease of use, perceived usefulness and internet banking adoption?
3. What is the relationship between trust and perceived usefulness?

1.6 Scope of the Study

1.6.1 Conceptual Scope

The study will be limited to Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness, and Internet Banking Adoption.

1.6.2 Geographical Scope

The study will focus on commercial bank customers in Kampala District. This is because most commercial banks are located in Kampala and its where most banking technological innovations are first introduced.

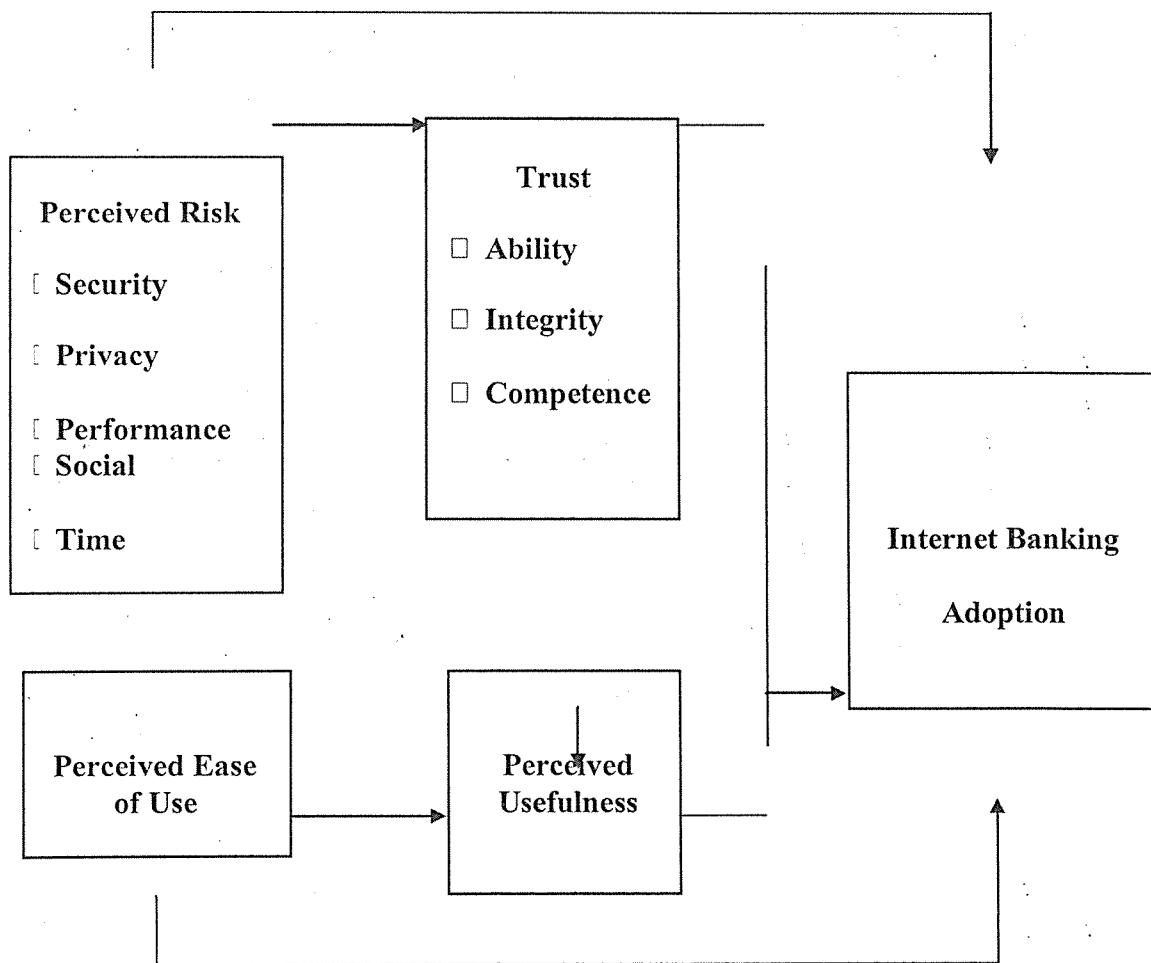
1.7 Significance of the Study

- (i) Firms engaged in internet banking will be able to use the findings of the study to improve their performance in their respective target markets.
- (ii) The study will be able to guide policy makers in designing policies that enhance the performance of bank firms in Uganda.
- (iii) The study will increase the knowledge on internet banking and in addition future academic research can be based on it.
- (iv) The findings of this study will provide an insight into factors facilitating or inhibiting internet banking adoption.

1.8 The Conceptual Framework

The conceptual frame work was developed from existing literature as shown below and it illustrates the relationship between Perceived Risk in terms of security, privacy, performance, social and time which influences Trust of internet banking which in turn influences Internet Banking Adoption behavior. Perceived Ease of Use influences Perceived Usefulness which in turn influences Internet Banking Adoption. Finally the Trust customers have in the Internet Banking system will affect the Adoption behavior of the system.

Fig. 1: Conceptual Framework



Source Aladwani, 2001; Aldas-Manzano et al., 2009

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the theoretical frame work of the study. Literature was reviewed while basing on the conceptual frame work.

2.1 Perceived Risk and Trust

Trust exists only when there is potential for risk (Grabner-Krauter and Kaluscha, 2003). Lee and Turban (2001) assert that to understand trust without examining the relationship with risk would make any study of trust incomplete. The reverse is perhaps also true – to study risk would be incomplete without studying trust. However, (Harridge-March, 2006) notes that it is difficult to imagine any situation where there is no potential for risk. Some degree of trust is needed for even everyday activity. Because risk is potentially a very personal thing, it follows that having trust is both personal and circumstance-specific. The level of trust required may differ according to the level of risk, whether real, perceived or implied, which leads to an individual making a choice about whether to trust or not to trust. Thus, it can be inferred that the level of trust can depend on the context in which it is invoked (Vaux Halliday, 2003). Other writers argue that trust has only a “moderately strong” effect on perceived risk (Viklund, 2003). Nevertheless, if consumers perceive high risk and have no trust in an organization, they will be unlikely to enter into any kind of relationship.

Trust can be defined by Mayer et al (1995), as

“The willingness of a party to be the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party,” (p.712).

Trust and risk can be linked. If a person has a disposition to trust, he/she is less likely to see the potential for risk, and implicit trust between people can lead to long-term personal relationships, but if the relationship is broken, this will affect the organization in which the individual has placed trust (Harridge-March, 2006). Security was found to be the most important determinant of consumer trust in the online retailer context (Mukherjee and Nath,

2007). Security systems have a significant impact on internet banking adoption (Howcroft et al., 2002).

Trust and perceived risk are closely related because economic transactions involve risk (Humphrey and Schmitz, 1998). Particularly, in the case of on-line banking where the bank and the customer are physically separated, contingencies are difficult to predict, and incorporate into terms and conditions, relationships are difficult to monitor, and cyber-laws are not well-defined, perceived risk is an inevitable factor raised the concern of customers (Ba, 2001). The degree to which a customer trusts the internet banking will be negatively influenced by the belief that he/she is operating in a high level of risk even though the risk level may be actually low (perceived risk) (Kassim and Abdulla 2006). Sattabusaya (2006) asserts that when processing financial information through the Internet banking system customers may often perceive that there is a high level of risk resulting in a decrease in their level of trust. In contrast, more experienced Internet banking customers have more information about Internet banking, and therefore they perceive the risk to be less and thus have more trust in on-line transactions (Ba, 2001).

The issue of trust arises because economic transactions involve risk (Humphrey and Schmitz, 1998). They further note that for a case of online banking this is true because the bank and the customer are physically separated, contingencies are difficult to predict into terms and conditions, relationships are difficult to monitor, and cyber laws are not well defined. The existence of trust in a relationship is a kind of insurance against risks and unexpected behavior. Trust partly depends on experience from interacting with another party. For example, a customer who has been doing business with a service provider for some time and is pleased with the results is inclined to trust that service provider. *The researcher therefore hypothesizes that; H₁ perceived risk affects trust.*

2.2 Trust and Internet Banking Adoption

Morgan and Hunt (1994), assert that trust exists when one party has confidence in an exchange partner's reliability and integrity. Moorman, Deshpande, and Zaltman (1993), trust can be seen as the willingness to rely on an exchange partner in whom one has confidence. Confidence in an exchange is a very important element and if it lacks in trust will cease to

exist. Mukherjee and Nath (2007) aver that the physical separation of the buyer and the seller, make trust a core issue.

Internet banking according to (Yee, 2004), are the banking services provided via a secure website operated by the bank provider whereby it involves the use of the Internet as a remote delivery channel. Namirembe, (2007), asserts that Banks offer Internet banking in two main ways. It can be an existing bank with physical offices that establish a web site and offer Internet banking to its customers as an addition to its traditional delivery channels. Another alternative is to establish a “virtual,” “branchless,” or “Internet-only” bank. The computer server that lies at the heart of a virtual bank may be housed in an office that serves as the legal address of such a bank, or at some other location.

Internet banking services not only allow customers to carry out a range of banking activities, such as managing bank accounts and transactions without leaving their desks (Weir, Anderson, & Jack., 2006), but is also a very cost efficient way for banks to provide their customer services (Yakhlef, 2001). However, it has been noted that customer adoption of internet banking has not yet reached the level, which most banks would like to see (Calisir and Gumussoy, 2008). Common concerns are identified such as the performance and security of banking transactions, as well as the confidentiality of personal account data (Aldas-Manzano, Lassala-Navarre, Ruiz-Mafe & Sanz-Blas., 2009). These concerns increase the level of perceived risk, which is further exacerbated by declining levels of trust in banks (Anita Lifan Zhao, Nicole Koenig-Lewis, Hanmer-Lloyd and Ward, 2010) thus leading to low levels of internet banking adoption. Trust plays a significant role in determining a customer’s actions regarding that company.

Empirical research has shown that trust increases customer intention to purchase a product from an online company (Jarvenpaa et al., 2000) as well as intention to return to that company (Doney and Cannon, 1997). Various researchers have suggested that online customers’ trust will positively influence their adoption of internet to search for information and subsequently, their intention to engage in online transactions. With a greater degree of trust in the online retailer, customers are more willing to make online purchases (Mukherjee and Nath, 2007; Jarvenpaa et al., 1999; Gefen and Straub, 2001).

Customers' technology orientation towards the electronic communication and the internet is frequently a proxy for their trust in internet banking because it provides a mean for information processing behaviour and perceived trust (Mukherjee and Nath, 2003). Reputation is a significant factor of online trust and that endorsement is a good way to enhance reputation.

Customer attitudes towards Internet banking are driven by trust, which plays an important role in increasing usability within the internet banking environment. The issue of trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information transferred via the Internet (Alsajjan and Dennis, 2006; Suh and Han, 2002). The researcher therefore hypothesizes that; *H₂ trust affects internet banking adoption.*

2.3 Perceived Risk and Internet Banking

Perceived risk can cause customer to reject new Internet banking services. Perceived risk is related to reliability and system failure (Khan, 2007). Customers can be worried that technology based service delivery systems will not work as expected, and lack confidence that problems can be solved quickly (Walker et al., 2002). Westland (2002) found that transaction risk occurs when online markets fail to assure that service will be delivered with adequate quality. Frequently, slow response time after the internet interaction leads to a delay of service delivery and causes customers to be unsure that the transaction was completed.

Users may fear Internet technology, system failure, information overload, feeling of uncertainty and confusion, and feeling of insecurity when engaging in Internet banking transactions such as fraud (Sattabusaya, 2006). Thus, it is expected that perceived risk will lower consumer's attitude to use Internet banking for transactions. Westland (2002) found that transaction risk occurs when on-line markets fail to assure that service will be delivered with adequate quality. This can be inferred to Internet banking circumstances when customers fear that they will not be served up to the promised standard; if, for example, the bank has not taken adequate steps to reduce transaction-related risks. Such risks will negatively affect the attitude of using Internet banking.

The perceived online shopping risk for the internet user is expectation of loss in a given electronic transaction (Alda's-Manzano et al., 2009). The different types of perceived shopping risk have a significant influence on the choice of the shopping channel, as they become a barrier to performing internet banking transactions (Gerrard and Cunningham, 2003). Previous research has found the perceived risk associated with possible losses from the online banking transaction is greater than in traditional environments (Mukherjee and Nath, 2003; Wang et al., 2003). Gerrard and Cunningham, (2003); Littler and Melanthiou, (2006); Alda's-Manzano et al., (2009) identified security, privacy, performance, social and time loss as risk dimensions that are likely to be evident in an internet transaction thus leading to low internet banking adoption. The researcher therefore hypothesises that; *H₃ all the dimensions of consumer perceived risk in online banking influence internet banking adoption.*

2.4 Perceived Ease of Use and Perceived Usefulness

According to Davis, (1989) Perceived Ease of Use is the extent to which a consumer believes a system is easy to learn or easy to use. In an Internet banking context Perceived Ease of Use can be the degree of ease the user's encounter when they use the service. Derived from TAM Perceived Ease of Use is one of determinants of Perceived Ease of Use. It has proven to have significant effects on perceive usefulness (PU) and attitude (Davis et at, 1989; Venkatesh, 2000; Venkatesh and Davis, 1996).

The easier it is for a user to interact with a system, the more likely he or she will find it useful (Thong et al., 2004). In the digital libraries setting, Hong et al. (2002) submitted that digital libraries need to be both easy to learn and easy to use. Mohd Yusoff et al., (2009) in their study found out that there was a significant and positive relationship between Perceived ease of use and Perceived usefulness. They also aver that if students find that the e-library is easy to use, they will be more willing to use it for information retrieval in order to improve the quality of their assignments.

Lee, Park and Ahn (2000) assert perceived ease of use had a strong positive effect on perceived usefulness in an e commerce adoption. They looked at perceived ease of use in the ease of the customer obtaining information, ordering, using service and overall ease of use.

Once the above aspects have been considered by an online retailer the customers will perceive online buying important thus engaging in ecommerce transactions.

Unlike physical banks the use of the Internet banking systems may raise the concerns to customers. For example, customers first have to access Internet before logging in to their account in order to use the Internet banking services. Some customers may not feel comfortable using it. When consumers perceive the service to be complex and difficult to use it is likely that they will have difficulty in recognizing the usefulness of the new technology. Moon and Kim (2001) suggest that Internet banking systems should be both easy to learn and easy to use. These characteristics provide less threat to customers. Thus, it can be assumed that;

H₄ Perceived Ease of Use will have a positive effect on Perceived Usefulness towards using the Internet banking systems.

2.5 Perceived Usefulness and Internet Banking Adoption

Pikkarainen et al. (2004) applied TAM in Finland and they found perceived usefulness as a determinant of actual behavior which encouraged the user of the twenty first century banking to use more innovative and user friendly self-service technologies that give them greater autonomy in performing banking transactions, in obtaining information on financial advices, and in purchasing other financial products. Tan and Teo (2000) suggested that the perceived usefulness is an important factor in determining adoption of innovations. As a consequence, the greater the perceived usefulness of using internet banking services, the more likely the internet banking will be adopted (Polatoglu and Ekin, 2001).

Taylor & Todd (1995) found that for business environments, perceived usefulness had a strong direct effect on an individual's intention to utilize an information technology innovation. This provided a strong support base for Davis et al.'s (1989) argument that in a real work environment, behavioral intentions are based primarily on performance related elements, rather than on the individual's attitude towards the behavior. Lopez & Manson, (1997) in their study found that perceived usefulness is a powerful medium for improving acceptance and utilization of innovative information technologies.

PU in the TAM model strongly emphasizes the extent to which a system adds to the consumer's job performance (Davis et al., 1989). According to the dominant features of Internet banking which can be accessed at any time no matter where the customer is, so the PU can be defined as how well customers believe that Internet banking can be integrated into their daily activities (Sattabusaya, 2006). When this belief increases, the customer's attitude to Internet banking will be more positive and at the same time their intention to use these services will increase. The main reason people accept Internet banking systems is that they find the systems useful to their banking transactions. The more useful is the Internet banking in enabling the users to accomplish their tasks the more it will be used. Therefore it can be assumed that;

H₅ Perceived Usefulness will have a positive effect on customer Internet banking adoption.

2.6 Perceived Ease of Use and Internet Banking Adoption

Researchers argued that perceived ease of use is the extent to which a person accepts as true that using an exacting method would be at no cost to that individual (Davis et al., 1989; Mathieson, 1991; Gefen and Straub, 2000; Gahtani, 2001). This means that perceived ease of use is the degree to which an innovation is perceived not to be difficult to understand, learn or operate. Similarly, Zeithaml et al. (2002) stated that the degree to which an innovation is easy to understand or use could be considered as perceived ease of use.

The appearance of a web site, ease of navigation and customer-oriented interface attract a positive customer response, but difficulties with navigation and links can deter online customers (Harridge-March, 2006). Ease of use seems to be one of important to use internet banking, which may be related to customer apprehension about the efforts required to learn to use internet banking and customer interest in new services provided by internet banking (Eriksson et al., 2005).

Jahangir and Begum (2008) found perceived ease of use as one of the factors that will lead to customers adopting internet banking and other information technology innovations. Therefore, it is of prime importance for banks to develop e-banking systems, which are easy to use, secure, and private for their users. Thus, the management needs to focus on the development of such belief on the part of the users. They can also help their customers by organizing

reduced usefulness. This can occur in a case where customer's activity databases are disclosed without permission.

Trust establishes the credibility of the Internet banking services in providing what has been promised (Ganesan 1994). Thus, trust provides a measure of subjective guarantee that the Internet banking can make good on its side of the deal, behave as promised, and genuinely care. All of these aspects increase the likelihood that the customers will gain the expected benefits from the Internet banking through which the service providers communicate with their customers. As a result, the level of perceived usefulness of the customer increases. Therefore, it can be hypothesized that:

H₇ trust is positively related to perceived usefulness.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter covers the way the research was carried out in line with the research design the procedures of sampling, sources of data, methods of data collection, processing and analysis and measurement of study variables.

3.1 Research Design

The study adopted a cross sectional design which was quantitative in nature. It involved descriptive and analytical research designs to establish whether the changes in the independent variables affect the dependent variable. Correlation and Regression approaches were used to investigate the relationships between the variables of study. This is because the objective was to examine the relationship between these variables.

3.2 Study Population

The study population comprised of 3,563,753 account holders in the major commercial banks in Uganda. Population of all 23 registered commercial banks operating in Uganda was targeted (Bank of Uganda Report, 2008).

3.3 Sampling Method and Size

The sample size of the respondents was 384 respondents selected basing on the table for determining sample size by Krejcie and Morgan, (1970). They note that as the population increases the sample size increases at a diminishing rate and remains relatively constant at slightly more than 380 cases. Mc Call (1994) supports this by stating that a researcher needs to get the appropriate sample size in terms of accuracy and cost putting into consideration the subject matter of investigation. Simple random sampling design was used to select respondents from 23 commercial banks in Kampala.

3.4 Data Sources

□ Primary Data.

The required primary data was collected directly from the respondents (bank customers) of the

various commercial banks. This was done through administering a structured questionnaire with the help of one research assistant. Respondents were guided through the questionnaires to ensure high level of accuracy in the data collection process.

☐ **Secondary data**

Secondary data was used to support the empirical findings of the study. This data was obtained from Bank of Uganda reports, commercial banks, existing literature in previous research paper findings, newspapers and conference proceedings. This literature relates Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption in Uganda.

3.5 Data Collection Instrument

Primary data was collected from respondents using structured semi-standard questionnaires and personal interviews. The questionnaire contained mainly closed ended questions and open-ended questions all in line with the study objectives. The respondents answered based on the extent to which they agree or disagree with the statements in the questionnaire. The questionnaire was self-administered for clarity purposes and to seek respondents' opinions. Secondary data was obtained through literature review of previous research findings and existing literature on each study variable.

3.6 Measurement of the Variables

A pre-coded structured semi-standardized questionnaire built on a Likert scale with responses ranging from 1- strongly agree to 5 strongly disagree was used to get the quantifiable data from individual respondents.

- ☐ **Perceived Risk** In this study, the overall perceived risk was measured on a multidimensional scale covering security, performance, privacy and finance concerns. The decision is in line with previous research, which demonstrates that perceived risk in internet banking is mainly determined by these risks Grabner-Krauter and Faullant, 2008; Gerrard and Cunningham, 2003; Howcroft et al., 2002; Ki Soon et al., 2007; Aldas-Manzano et al., 2009; Littler and Melanthiou, 2006; Yousafzai et al., 2003; Sattabusaya, 2006.

- **Trust** refers to the belief that the promise of another can be relied upon and that, in a benign fashion toward the trustor. Trust has three characteristics; ability, benevolence and integrity. These items have been adopted from Mayer et al (1995), Baraghani, 2008; Grabner-Krauter and Faullant, 2008; Kassim and Abdulla (2006); Mukherjee and Nath (2003); Sattabusaya, 2006; Prompattanakdee (2009) as well as the researchers' conceptualization.
- **Perceived Ease of Use** is the degree to which a person believes that using a particular system would be free of effort. The researcher adopted measurement from previous technology acceptance studies. The items were gathered from Chong et al., 2010; Davis, 1989, Pikkarainen et al. (2004) Jahangir and Begum (2008), Amin (2007), Shih and Fang (2004), Eriksson et al. (2005); Aldas-Manzano et al. (2009); Black et al. (2001); Cunningham et al. (2005); Littler and Melanyhiou (2006).
- **Perceived Usefulness** is the degree to which a person believes that using a particular system would enhance his or her job performance. The measurement items were be adopted from Chong et al., 2010; Davis (1989), Pikkarainen et al. (2004), Jaruwachirathanakul and Fink (2005), Tan and Teo (2000), Shih and Fang (2004), Jahangir and Begum, 2008.
- **Internet Banking Adoption** was measured using items adopted from Davis (1989), Agarwal and Karahanna (2000), Jaruwachirathanakul and Fink (2005), Pikkarainen et al. (2004), Chen et al. (2002), Cheng et al. (2005), Chau and Hu (2002), Davis (1989), Featherman and Pavlou (2002), Suh and Han (2002), Taylor and Todd (1995a), Venkatesh (2000) and Venkatesh et al. (2003).

3.7 Validity and Reliability of Research Instruments

The research instrument was examined for its reliability by using Cronbach's Alpha value.

All the items included in the scale adopted from reviewing literature on Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption.

Table 1: Reliability of the Instrument

Variable	Anchor	Cronbach Alpha Value
Perceived Risk	5 point	0.6028
Trust	5 point	0.7620
Perceived Ease of Use	5 point	0.9122
Perceived Usefulness	5 point	0.8290
Internet Banking Adoption	5 point	0.9271

Source: primary data.

Alpha coefficient of above 0.6 for individual test variables was accepted meaning the instrument was valid. Table 1 shows the findings.

3.8 Data Processing and Analysis

The data collected was edited for incompleteness and inconsistency. The statistical package for social scientists (SPSS) version 16.0 was used for data entry and analysis. Pearson's correlation coefficient was used to establish the relationships between

Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness, and Internet Banking Adoption. Regression analysis was used to determine how the predictor variables can explain the dependent variable. This is because there are more than one variable affecting the dependent variable.

3.9 Ethical Considerations

The researcher sought an introductory letter from the University which was presented to the management of the various organizations to seek permission and consent. The data obtained from the respondents was treated purely as academic and confidential for the safety, social and psychological well-being of the respondents.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS.

4.0 Introduction

This chapter presents findings of the study that were generated from data analysis and its interpretation. It includes Descriptive Statistics, Correlation Analysis and Regression Analysis. The results presented were guided by the research objectives which were:

- (i) To establish the relationship between perceived risk, trust and Internet banking adoption.
- (ii) To establish the relationship between perceived ease of use, perceived usefulness and internet banking adoption. S
- (iii) To establish the relationship between trust and perceived usefulness.

4.1 Descriptive Statistics of Background Information

4.1.1 Age and Gender Respondents.

The results indicate the nature of gender and age group of the respondents in the study.

Table 2: Age and Gender

			Gender		Total
			Male	Female	
	18 - 25 yrs	Count	16	5	21
		Row %	76.2%	23.8%	100.0%
		Column %	18.4%	2.2%	6.8%
	26 - 30 yrs	Count	32	99	131
		Row %	24.4%	75.6%	100.0%
		Column %	36.8%	44.2%	42.1%
		Count	20	81	101

Age	31 - 35 yrs	Row %	19.8%	80.2%	100.0%
		Column %	23.0%	36.2%	32.5%
	36 - 40 yrs	Count	14	36	50
		Row %	28.0%	72.0%	100.0%
		Column %	16.1%	16.1%	16.1%
	40 yrs & Above	Count	5	3	8
		Row %	62.5%	37.5%	100.0%
		Column %	5.7%	1.3%	2.6%
	Total	Count	87	224	311
		Row %	28.0%	72.0%	100.0%
		Column %	100.0%	100.0%	100.0%

Source: Primary Data

The sample was dominantly female, with this gender category taking up 72.0% and males only 28.0%. For both males and females, the most populous age group was 26 - 30 years. Overall, most respondents were in the 26 - 30 year age bracket (42.1%) and only 2.6% were 40 years and above. Among the populous respondents, 24.4% were male and 75.6% were female and for the elderly respondents, 62.5% were male and 37.5% were female.

4.1.2 Highest Level of Education with Marital Status of the Respondents.

The results in the table below show the highest level of education and the marital status of the respondents.

Table 3: Highest Level of Education with Marital Status.

			Marital Status.		Total
			Single	Married	
Highest Level of education	Secondary	Count	4	2	6
		Row %	66.7%	33.3%	100.0%
		Column %	5.3%	.8%	1.9%
	Diploma	Count	32	80	112
		Row %	28.6%	71.4%	100.0%
		Column %	42.7%	33.9%	36.0%
	Bachelor's Degree	Count	30	131	161
		Row %	18.6%	81.4%	100.0%
		Column %	40.0%	55.5%	51.8%
	Masters	Count	9	22	31
		Row %	29.0%	71.0%	100.0%
		Column %	12.0%	9.3%	10.0%
	PhD	Count		1	1
		Row %		100.0%	100.0%
		Column %		.4%	.3%
Total		Count	75	236	311
		Row %	24.1%	75.9%	100.0%
		Column %	100.0%	100.0%	100.0%

Source: Primary Data

The results showed that 1.9% of the respondents were of secondary level with 66.7% being single and 33.3% married, 36.0% had a diploma with 28.6% being single and 71.4% were married, 51.8% had a Bachelors degree with 18.6% being single and 81.4% were married, 10.0% had a Masters degree with 29.0% being single and 71.0% were married and 0.3% had a PhD degree with 100.0% being married.

According to the results most of the respondents (51.8%) had a Bachelors degree and the minority of respondents (0.3%) was PhD holders. 25

4.1.3 Income Level (per month) with Occupation of the Respondents.

The results in table 4 below represent the income levels with the occupation status of the respondents.

Table 4: Income level (per month) and Occupation status.

			Occupation status				Total
			Civil Servant	Private Sector	Self Employed	Others	
Income (per month)	Less 100,000/=	Count		4	1	1	6
		Row %		66.7%	16.7%	16.7%	100.0%
		Column %		2.7%	1.0%	20.0%	1.9%
	100,000 500,000/=	Count	20	57	23	4	104
		Row %	19.2%	54.8%	22.1%	3.8%	100.0%
		Column %	35.7%	38.3%	22.8%	80.0%	33.4%
		Count	17	68	45		130

	500,001 1,000,000/=	Row %	13.1%	52.3%	34.6%		100.0%
		Column %	30.4%	45.6%	44.6%		41.8%
	Above 1,000,000/=	Count	19	20	32		71
		Row %	26.8%	28.2%	45.1%		100.0%
		Column %	33.9%	13.4%	31.7%		22.8%
	Total	Count	56	149	101	5	311
Row %		18.0%	47.9%	32.5%	1.6%	100.0%	
Column %		100.0%	100.0%	100.0%	100.0%	100.0%	
	X ² = 36.203		df = 9	Sig.= .000			

Source: Primary Data

The results show that most of the respondents (41.8%) had an income between 500,001 - 1,000,000/=, the minority of the respondents (1.9%) had their incomes Less than 100,000/=, 33.4% had incomes between 100,000 - 500,000/= and above 1,000,000/= was 22.8%.

An association was noted between the Income level (per month) and the Occupation status of the individuals (sig. <.05). As such, the Occupation status whether in civil service or Private sector, will impact on the income of the individual.

4.1.4 Access to Internet with Gender of Respondents

The results in table 5 represent access to internet and the gender of the respondents in the study.

Table 5: Access to Internet with Gender.

			Gender		Total
			Male	Female	
Do you have Access to internet	Yes	Count	82	195	277
		Row %	29.6%	70.4%	100.0%
		Column %	94.3%	87.1%	89.1%
	No	Count	5	29	34
		Row %	14.7%	85.3%	100.0%
		Column %	5.7%	12.9%	10.9%
Total		Count	87	224	311
		Row %	28.0%	72.0%	100.0%
		Column %	100.0%	100.0%	100.0%
		$X^2 = 3.335$	df = 1	Sig. = .068	

The results reveal that 89.1% of the respondents had access to internet of which 29.6% were males and 70.4 % were females and 10.9% had no access to internet with 14.7% being males and 85.3% being females. The results show that no association was noted between access to internet and the gender of the respondents (sig. >.05). As such, the access of internet will not be impacted by the gender of the individuals.

4.1.5 Internet Banking Usage and Occupation Status of the Respondents.

The table below shows the respondents internet usage with the occupation status of the respondents in the study.

Table 6: Internet Banking Usage and Occupation Status

			Occupation status				Total
			Civil Servant	Private Sector	Self Employed	Others	
Have you ever used Internet Banking?	Yes	Count	18	36	29		83
		Row %	21.7%	43.4%	34.9%		100.0%
		Column %	32.1%	24.2%	28.7%		26.7%
	No	Count	38	113	72	5	228
		Row %	16.7%	49.6%	31.6%	2.2%	100.0%
		Column %	67.9%	75.8%	71.3%	100.0%	73.3%
Total		Count	56	149	101	5	311
		Row %	18.0%	47.9%	32.5%	1.6%	100.0%
		Column %	100.0%	100.0%	100.0%	100.0%	100.0%
			X ² =3.370		df =3	Sig.=.338	

The table above shows that 26.7% of the total respondents have ever used internet banking with 21.7% being civil servants, 43.4% in the private sector and 34.9% being self-employed and 73.3% had never used internet banking with 16.7% being civil servants, 49.6% in the private sector, 31.6% self-employed and 2.2% were in the other category.

The results further reveal that there is no association between the respondents occupation status and whether they have ever used internet banking (sig. >.05). Therefore occupation status will not have an impact on internet banking usage.

4.1.6 Occupation Status with Intention to use Internet banking.

The results in table 7 below do show the respondents' occupation status with intention to use internet banking in the study.

Table 7: Occupation Status with Intention to use Internet Banking

			If no, do you intend to use it?		Total
			Yes	No	
Occupation status	Civil Servant	Count	55	1	56
		Row %	98.2%	1.8%	100.0%
		Column %	19.2%	4.2%	18.0%
	Private Sector	Count	139	10	149
		Row %	93.3%	6.7%	100.0%
		Column %	48.4%	41.7%	47.9%
	Self Employed	Count	88	13	101
		Row %	87.1%	12.9%	100.0%
		Column %	30.7%	54.2%	32.5%
	Others	Count	5		5
		Row %	100.0%		100.0%
		Column %	1.7%		1.6%
Total		Count	287	24	311
		Row %	92.3%	7.7%	100.0%
		Column %	100.0%	100.0%	100.0%
			X ² = 7.164	df=3	Sig.=.067

Source: Primary Data

4.2 Correlation Analysis

The objectives of the study were based on the relationships between the different variables which were: Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption. In order to achieve this, the Pearson (r) correlation coefficient was computed given the interval nature of the data and the need to test the direction and strength of relationships that exist among the study variables. Table below presents the correlation analysis results.

Table 8: Pearson Correlations

	Perceived Risk	Trust	Perceived Ease of Use	Perceived Usefulness	Internet Banking Adoption
Perceived Risk	1.000				
Trust	-.169**	1.000			
Perceived Ease of Use	-.264**	.385*	1.000		
Perceived Usefulness	-.255**	.394*	.364**	1.000	
Internet Banking Adoption	-.335**	.287*	.472**	.531**	1.000

** Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data

4.2.1 The Relationship between Perceived Risk, Trust and Internet Banking Adoption.

Perceived risk was observed to be negatively related to trust ($r = -.169^{**}$, $p < .01$). This

indicates that when people feel their money could be stolen or is not secure, or Internet banking will waste their time, they end up mistrusting the whole bank offer. The results further reveal that trust is positively related to internet banking adoption ($r=.287^{**}$, $p<.01$). This implies that trust and its components reduce the customers' uncertainties associated with internet banking. This also implies that if bank customers have trust in internet banking, they assume it will work as expected thus adopting the offer.

The results also show that perceived risk is negatively related to internet banking ($r=-.335^{**}$, $p<.01$). This implies that when the perceived risk is high, bank customers will not adopt internet banking. A higher customer risk perception lowers the level of internet banking adoption.

4.2.2 The Relationship between Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption.

The results reveal that Perceived Ease of Use is positively related to Perceived Usefulness ($r=.364^{**}$, $p<.01$). This implies that customers will perceive those internet banking systems that are easy to use, as useful.

Perceived Usefulness is positively related to internet banking adoption ($r=.531^{**}$, $p<.01$). This means that bank customers will adopt those internet banking systems they perceive to be useful.

The results further reveal that Perceived Ease of Use is positively related to internet banking adoption ($r=.472^{**}$, $p<.01$). This means that those internet banking systems that are easy for the bank customers to use are likely to be adopted than those systems that are not easy to use.

4.2.3 The Relationship between Trust and Perceived Usefulness.

The results revealed a positive relationship to be existing between trust and Perceived Usefulness ($r=.394^{**}$, $p<.01$). This means that bank customers will consider those internet banking systems they have trust in to be useful.

4.3 Regression Analysis

The regression model was used to determine the degree to which Perceived Risk, Trust, Perceived Ease of Use, and Perceived Usefulness can explain or predict

Internet Banking Adoption. This was done since there was more than one predictor variable impacting on the dependent variable. Table below presents the regression analysis results.

Table 9: Regression Analysis Model

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Dependent Variable: Internet Banking Adoption	
Model		B	Std. Error	Beta				
1	(Constant)	1.914	.239		8.016	.000	R Square	0.393
	Perceived Risk	-.130	.038	-.162	-3.396	.001	Adjusted R Square	0.385
	Trust	.006	.046	.007	.137	.891	Sig.	0.000
	Perceived Ease of Use	.245	.044	.289	5.627	.000		
	Perceived Usefulness	.369	.049	.388	7.516	.000		

The results in table above show that the predictor variables can explain at least 38.5% of the variance in internet banking adoption (Adjusted R Square = .385). The results further indicated that Perceived Usefulness (Beta = .388, Sig. = .000), was a better predictor followed by Perceived Ease of Use (Beta = .289, Sig. = .000), Perceived Risk (Beta = -.162, Sig. = .001) and then Trust (Beta = .007, Sig. = .891). It means that a change in Perceived Usefulness leads to 0.388 positive changes in Internet Banking Adoption while Perceived Ease of Use contributes to 0.289, Perceived Risk -0.162 and Trust 0.007 which is not a very significant predictor of Internet Banking Adoption. Therefore Commercial Banks should prioritize Perceived Usefulness followed by Perceived Ease of Use, Perceived Risk and lastly Trust in a bid to increase adoption of 32 Internet Banking. The regression model was also observed to be significant (sig. <.01) and could thus be used to reliably make deductions and recommendations for the Commercial Banks in line with Internet Banking.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

The study focused on the relationship between Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption. This chapter is divided into four sections, .discussion of findings, conclusions, recommendations and areas for further research. These sections are guided by the study objectives.

5.1 Discussion of Findings

The discussion of the findings is in relation with the objectives of the study.

5.1.1 To Establish the Relationship between Perceived Risk, Trust and Internet Banking Adoption.

The findings of the study indicate that there is a negative relationship between perceived risk and trust. This implies that when consumers perceive internet banking systems to be highly risky, their trust for the system will decrease. This is consistent with (Kassim and Abdulla 2006) who note that the degree to which a customer trusts the internet banking will be negatively influenced by the belief that he/she is operating in a high level of risk even though the risk level may be actually low (perceived risk). Sattabusaya (2006) asserts that when processing financial information through the Internet banking system customers may often perceive that there is a high level of risk resulting in a decrease in their level of trust. Ba, 2001, on the other hand asserts that more experienced Internet banking customers have more information about Internet banking, and therefore they perceive the risk to be less and thus have more trust in on-line transactions.

The results revealed a positive correlation between trust and internet banking adoption. This is in such a way that high level of trust in the internet banking systems, will increase the adoption rate of internet banking adoption. This is in line with (Alsajjan and Dennis, 2006; Suh and Han, 2002) who assert that trust is more important in online as opposed to offline banking because transactions of this nature contain sensitive information and parties involved in the financial transaction are concerned about access to critical files and information

transferred via the Internet thus affecting Internet Banking Adoption.

The Pearson correlation coefficient showed that there was a significant negative relationship between Perceived Risk and Internet Banking Adoption. This means that high levels of Perceived Risk decrease the levels of Internet Banking Adoption.

This is in agreement with (Alda's-Manzano et al., 2009; Mukherjee and Nath, 2003; Wang et al., 2003; Walker et al., 2002) who assert that if bank customers are worried that bank technology based service delivery systems will not work as expected, and lack confidence that problems can be solved quickly their willingness to adopt internet banking will decrease.

5.1.2 To establish the Relationship between Perceived Ease Of Use, Perceived Usefulness and Internet Banking Adoption.

Findings show that there is positive relationship between perceived ease of use, perceived usefulness. This points out that if bank customers perceive internet banking systems as easy to use, they will always perceive take them to be useful. This is supported by (Thong et al., 2004) who noted in their study that the easier it is for a user to interact with an internet banking system, the more likely he or she will find it useful. Lee, Park and Ahn (2000) in an e commerce setting assert that perceived ease of use had a strong positive effect on perceived usefulness. They looked at perceived ease of use in the ease of the customer obtaining information, ordering, using service and overall ease of use. Once the above aspects have been considered by an online retailer the customers will perceive online buying important thus engaging in ecommerce transactions.

Findings also revealed a positive relationship between that perceived ease of use and internet banking adoption. This means that customers will adopt internet banking systems they consider to be easy to use. This finding is consistent with (Harridge-March, 2006) who asserts that the appearance of a web site, ease of navigation and customer-oriented interface attract a positive customer response, but difficulties with navigation and links can deter online customers. Chong, Ooi, Lin & Tan (2010), notes that in an internet environment, users do not have face-to-face interaction with the bank, user friendliness and the ease of use of the web sites will lessen the threat to use internet banking by the customers. An application perceived to be easier to learn and use than another is more likely to be accepted by users (Pikkarainen

et al., 2004).

There is a positive and significant relationship between perceived usefulness and internet banking adoption. This means that internet banking systems that are perceived to be useful are likely to be adopted by the bank customers. This is in conformity with the findings of (Sattabusaya, 2006) who notes that dominant features of Internet banking systems which can be accessed at any time no matter where the customer is, will make them to be useful thus bank customers adopting them. Polatoglu & Ekin, (2001); Tan & Teo (2000), the greater the perceived usefulness of using internet banking services, the more likely the internet banking will be adopted.

5.1.3 To establish the Relationship between Trust and Perceived Usefulness.

The results showed a positive and significant relationship between trust and perceived usefulness. This means that if bank customers have trust in an internet banking system, they will consider that banking system to be useful. Chircu et al. (2000) note that trust assures a bank customer to receive the expected useful interaction and not to suffer a loss from the transaction. Internet banking systems which can be trusted means that customers are able to successfully accomplish their tasks on-line such as checking the balance of their account or making a money transfer (Sattabusaya, 2006).

5.2 Conclusions

The study revealed a negative relationship between perceived risk and internet banking adoption, a positive relationship between trust and internet banking adoption and a negative relationship between trust and perceived risk. This therefore implies that the higher the level of perceived risk, the lower the rate of customer internet banking adoption. If bank customers have trust in an internet banking system, they are likely to adopt. Furthermore if bank customers associate high risk to an internet banking system, their level of trust in such a system will be low thus failing to adopt the innovation.

Findings further showed perceived ease of use, perceived usefulness and internet banking adoption are positively correlated. This suggests that when bank customers find internet banking systems easy to use they will adopt them. Also bank customers will adopt those internet banking systems they consider to be useful. In other words if an internet banking

system can help them accomplish their tasks at any time, such a system will be adopted. Furthermore if customers find internet banking systems easy to use, they will consider them useful. This means that in using Internet banking systems for example, customers first have to access Internet before logging in to their account in order to use the Internet banking services. Some customers may not feel comfortable using it. When consumers perceive the service to be complex and difficult to use, it is likely that they will have difficulty in recognizing the usefulness of the new technology.

Finally, trust and perceived usefulness have a positive and significant relationship as revealed by the findings of this study. This shows that internet banking systems to be considered useful, the bank customers need to first trust in them. if customers perceive that the Internet banking system has a low ability, is unreliable, or service providers do not care about their customers then accomplishing such a task will be much harder resulting in negative consequences such as reduced usefulness.

5.3 Recommendations

The various commercial banks which have introduced internet banking or yet to introduce the innovation, should ensure that they reduce on the customer perception of the risk associated with internet banking. This will increase on the likelihood of the customers to adopt internet banking. Perceived risk constructs such as security, privacy, need not be minimized in order to reduce on the perceived risk associated with internet banking.

Commercial banks offering online services should build trust with consumers by giving them complete confidence on the bank product/service that they provide online. This can be achieved when banks improve their ability, integrity and benevolence to trust. In sum, banks using and those intending to use internet banking should consider these contextual factors in order to facilitate consumer adoption behavior.

Banks should ensure that the design and layout of banking web sites allow consumers to easily find the information content they need. Consumers expect banks to know who they are, what type of services they have ordered in the past and how they prefer to be contacted, demanding ever more personalized attention. The provision of personalized customer services to assist consumers in performing transactions via the internet as well as providing specific

value-added services that are currently not provided through traditional banking channels can also help to increase customers' perceived ease of use and perceived usefulness of banking web sites.

Banks may find it useful to advertise the benefits of the web, such as avoiding jammed telephone lines or queues in bank offices, providing fast, transparent and updated information, or the convenience of making transactions at home. This will increase the level of perceived usefulness of the internet banking by the bank customers.

Commercial banks should understand that a bank customer is willing to engage in internet banking from an online bank that is perceived low risk. Bank customers always consider some of the risk aspects such as security, privacy, performance, time and social before they adopt internet banking. Therefore banks should guarantee their customers that personal data are protected, will not face financial losses, and that the customer's anonymity is thus guaranteed. By emphasizing the risk dimensions, this will tend to reduce on the risk perceived by customer over internet banking thus internet banking adoption.

5.4 Areas for Further Research

Further research needs to be done on the side of the banks to establish why some banks in Uganda have been slow at adopting and implementing internet banking.

Further research incorporating system structures/ infrastructure and government support towards the innovation needs to be considered.

Further research needs to incorporate the quality perspective of the internet because in developed countries like Uganda the quality of internet is low which can be a limiting factor to why some people are not adopting internet banking.

The future research should follow the longitudinal approach to predict beliefs and behavior over time since the model of this study is cross-sectional, which measures the intention only at a single point in time.

REFERENCES

- Aladwani, A.M. (2001), "Online banking: a field study of drivers, development challenges, and expectations", *Internal Journal of Information Management*, Vol. 21 No. 3, pp. 213-25.
- Alain Yee-Loong Chong, Keng-Boon Ooi, Binshan Lin & Boon-In Tan (2010), "Online banking adoption: an empirical analysis", *International Journal of Bank Marketing* Vol. 28 No. 4, 2010 pp. 267-287
- Aldas-Manzano, J., Lassala-Navarre, C., Ruiz-Mafe, C. and Sanz-Blas, S. (2009), "The role of consumer innovativeness and perceived risk in online banking usage", *International Journal of Bank Marketing*, Vol. 27 No. 1, pp. 53-75.
- Alsajjan, B. and Dennis, C. (2006), "The Impact of trust on acceptance of online banking" *European Association of Education and Research in Commercial Distribution*, 27-30 June 2006 Brunel University –West London, United Kingdom.
- Anita Lifan Zhao, Stuart Hanmer-Lloyd, Philippa Ward and Mark M.H. Goode (2010), "Adoption of Internet Banking Services in China: is it all about trust?" *International Journal of Bank Marketing* Vol. 28 No. 1, pp. 7-26.
- Ba, S. (2001) "Establishing online trust through a community responsibility system" *Decision Support Systems*. 31(3): 323-336.
- Black, N.J., Lockett, A., Winklhofer, H. and Ennew, C. (2001), "The adoption of internet financial services: a qualitative study", *International Journal of Retail & Distribution Management*, Vol. 29 No. 8, pp. 390-8.
- Calisir, F. and Gumussoy, C.A. (2008), "Internet banking versus other banking channels: young consumers' view", *International Journal of Information Management*, Vol. 28 No. 3, pp. 215-21.
- Chen YH, Barnes S (2007), "Initial trust and online buyer behavior" *Ind. Manage. Data Syst*, 107 (1), 21-36.

- Cunningham, L.F., Gerlach, J.H., Harper, M.D. and Young, C.E. (2005), "Perceived risk and the consumer buying process: internet airline reservations", *International Journal of Service Industry Management*, Vol. 16 No. 4, pp. 357-72.
- David A. Lopez & Daniel P. Manson, (1997), "A Study of Individual Computer Self-Efficacy and Perceived Usefulness of the Empowered Desktop Information System", *Business Administration Computer Information Systems*.
- Davis, F.D. (1989), "Perceived usefulness, perceived ease of use, and user acceptance of information technology", *MIS Quarterly*, Vol. 13 No. 3, pp. 319-39.
- Dongwon Lee, Jinsoo Park and Joongho Ahn, (2000), "On the Explanation of Factors Affecting E-Commerce Adoption", Working Paper Last revised on December 2000.
- Doungratana Sattabusaya (2006), "Keys factors that determine Internet banking adoption in Thailand" Research design and methodology approach, Cardiff University Aberconway Building, Colum Drive, Cardiff, CF10 3EU, UK.
- Doungratana Sattabusaya (2006), "Key factors driving Internet banking customer's intentions towards their actual behavior in Thailand" Cardiff Business School.
- Eriksson, K., Kerem, K. and Nilsson, D. (2005), "Customer acceptance of internet banking in Estonia", *International Journal of Bank Marketing*, Vol. 23 No. 2, pp. 200-16.
- Esther Namirembe (2007), "Influence of ICT on the Banking Industry: the case of Kampala", Masters Dissertation, Makerere University.
- Fiona Abaasa (2007), "Banking in Uganda Gone High Tech", <http://www.ugpulse.com/articles/daily/Business>
- Gahtani SA (2001), "The applicability of TAM outside North America: an empirical test in the United Kingdom" *Info. Resource Manage. J.* 2 (July- September), pp. 37-46.
- Gefen D, Straub D (2000), "The relative importance of perceived ease of use in IS adoption: a study of e-commerce adoption" *Journal Assoc. Info. System* 1(8): 1-28.
- Gefen, D. Karahanna, E. and Straub, D. W. (2003), "Trust and TAM in Online Shopping: An

Integrated Model”, *MIS Quarterly*. 7(1): 51-90.

Gerrard, P. and Cunningham, J. B. (2003), “The diffusion of internet banking among Singapore consumers”, *International Journal of Bank Marketing*, 21(1), 16-28.

Gerrard, P. and Cunningham, J.B. (2003), “The difusio’n of internet banking among Singapore consumers”, *International Journal of Bank Marketing*, Vol. 21 No. 1, pp. 16-28.

Goon, T.L., N. Dahlan, T. Ramayah, N. Karia and M. H. Abu Hassan Asaari (2005), “Impact of interface characteristics on digital libraries usage” *Malaysian Online Journal of Instructional Technology*, Vol.2, No.1.

Gounaris, S. and Koritos, C. (2008), “Investigating the drivers of internet banking adoption decision: a comparison of three alternative frameworks”, *International Journal of Bank Marketing*, Vol. 26 No. 5, pp. 282-304.

Grabner-Krauter, S.G. and Kaluscha, E.A. (2003), “Empirical research in on-line trust: a review and critical assessment”, *International Journal of Human-Computer Studies*, Vol. 58, pp. 783-812.

Harridge-March, S. (2006) “Can the building of trust overcome consumer perceived risk online?” *Marketing Intelligence & Planning*, VOL.24, No.7, 746-761.

Howcroft, B., Hamilton, R. and Hewer, P. (2002), “Consumer attitude and the usage and adoption of home-based banking in the United Kingdom”, *International Journal of Bank Marketing*, Vol. 20 No. 3, pp. 111-21.

Jahangir, N. and Begum, N. (2008), “The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaption in the context of electronic banking”, *Africa Journal of Business Management*, Vol. 2 No. 1, pp. 32-40.

Jaruwachirathanakul, B. and Fink, D. (2005), “Internet banking adoption strategies for development country: the case of Thailand”, *Internet Research*, Vol. 15 No. 3, pp. 295-311.

- Jarvenpaa, S.L., Tractinsky, N. and Vitale, M. (2000), "Consumer trust in an Internet store", *Information Technology and Management*, Vol. 1 Nos 1-2, pp. 45-71.
- Kassim, N. and Abdulla, A. (2006), "The influence of attraction on internet banking: an extension to the trust-relationship commitment model", *International Journal of Bank Marketing*, Vol. 24 No. 6, pp. 424-42.
- Ki Soon Lee, Hyung Seok Lee, and Sang Yong Kim (2007), Factors Influencing the Adoption Behavior of Mobile Banking: A South Korean perspective, *Journal of Internet Banking and Commerce*, vol. 12, no.2.
- Lee, K. O., Matthew, & Turban, E. (2001). "A trust model for consumer Internet shopping", *International Journal of Electronic Commerce*, 6(1), 75 – 91.
- Littler, D. and Melanthiou, D. (2006), "Consumer perceptions of risk and uncertainty and the implications for behaviour towards innovative retail services: the case of internet banking", *Journal of Retailing and Consumer Services*, Vol. 13 No. 6, pp. 431-43.
- Mathieson K (1991), "Predicting user intentions: comparing the technology acceptance model with the theory of planned behavior", *Info. Syst. Res.* 2(3): 173-191.
- Mayer, R.C., Schoorman, F.D. and Davis, J.H. (1995), "An integrative model of organizational trust", *Academy of Management Review*, Vol. 20 No. 3, pp. 709-34.
- Milind Sathye, (1999), "Adoption of Internet banking by Australian consumers: an empirical investigation", *International Journal of Bank Marketing*, 17/7, 324– 334.
- Morgan, R.F. and Hunt, D. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.
- Mukherjee, A. and Nath, P. (2007), "Role of electronic trust in online retailing A re-examination of the commitment-trust theory", *European Journal of Marketing* Vol. 41 No. 9/10, pp. 1173-1202.
- Nadim Jahangir and Noorjahan Begum (2008), "The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer

adaptation in the context of electronic banking”, *African Journal of Business Management* Vol.2 (1), pp. 032-040.

Pikkarainen, T., Pikkarainen, K., Karjaluoto, H. and Pahnla, S. (2004), “Consumer acceptance of online banking: an extension of the technology acceptance model”, *Internet Research*, Vol. 14 No. 3, pp. 224-35.

Polatoglu VN, Ekin S (2001), “An empirical investigation of the Turkish consumers' acceptance of internet banking services”, *International Journal Bank Marketing* 19 (4): 156-165.

Ramayah, T. and B. Aafaqi (2004), “Role of self-efficacy.in e-library usage among students of a public University in Malaysia” *Malaysian Journal of Library & Information Science*, Vol.9, No. 1, 39-57.

Rotchanakitumnuai, S. and Speece, M. (2003), “Barriers to internet banking adoption: a qualitative study among corporate customers in Thailand”, *International Journal of Bank Marketing*, Vol. 21 No. 6/7, pp. 312-23.

Saadullah Khan, (2007), “Adoption Issues of Internet Banking in Pakistani’s Firms”, *Department of Business Administration and Social Science Division of System Sciences*, Lulea University of Technology.

Sara Naimi Baraghani (2008), “Factors Influencing the Adoption of Internet Banking”, *Department of Business Administration and Social Sciences*, Lulea University of Technology.

Shih, Y. and Fang, K. (2004), “The use of a decomposed theory of planned behavior to study internet banking in Taiwan”, *Internet Research*, Vol. 14 No. 3, pp. 213-23.

Sonja Grabner-Krauter and Rita Faullant (2008), “Consumer acceptance of internet banking: the influence of internet trust”, *International Journal of Bank Marketing* Vol. 26 No. 7, pp. 483-504.

Suh, B. and Han, I. (2002), “Effect of trust on customer acceptance of internet banking”, *Electronic Commerce Research and Applications*, Vol. 1 No. 3-4, pp. 247-63.

- Suh, B. and Han, I. (2002), "Effect of trust on customer acceptance of Internet banking", Vol. (1) 1, 247-263.
- Surapong Prompattanakdee (2009), The Adoption and Use of Personal Internet Banking Services in Thailand, *The Electronic Journal on Information Systems in Developing Countries*, 37, 6, 1-31
- Tan M, Teo TSH (2000), "Factors influencing the adoption of internet banking", *J. Assoc. Info. Syst.* 1(5): 22-38.
- Taylor, S., & Todd, P. (1995), "Understanding Information Technology Usage: A Test of Competing Models" *Information Systems Research*, 6, (2), 144-176
- Thong, J.Y.L, W. Hong and T. Kar-Yan (2002), "Understanding user acceptance of digital libraries: what the roles of interface characteristics, organizational context, and individual differences?", *International Journal of Human Computer Studies*, vol. 57, 2002, 215 – 42.
- Tumusiime Mutebile (2007), "Launching Ceremony Of The Orient Express Visa Card – Orient Bank Limited",
- Venkatesh, V. (2000), "Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model", *Information Systems Research*. 11(4): 342-365.
- Venkatesh, V. and Davis, F.D. (1996), "A model of the antecedents of perceived ease of use: development and test", *Decision Sciences*. 27(3): 451-481.
- Walker, R.H., Craig-Less, M., Hecker, R., Francis, H. (2002) "Technology enabled service delivery: an investigation of reasons affecting customer adoption and rejection", *International Journal of service Industry Management*, Vol. 13 No. 1, pp. 91 – 106.
- Wang, Y.S., Wang, Y.M., Lin, H.H. and Tang, T. (2003), "Determinants of user acceptance of internet banking: an empirical study", *International Journal of Service Industry Management*, Vol. 14 No. 5, pp. 501-19.

- Weir, C.S., Anderson, J.N. and Jack, M.A. (2006), "On the role of metaphor and language in design of third party payments in e-banking: usability and quality", *International Journal of Human-Computer Studies*, Vol. 64 No. 8, pp. 770-84.
- Westland, J.C. (2002), "Transaction risk in electronic commerce", *Decision Support Systems*, Vol. 33 No.1, pp. 87 -103.
- Yakhlef, A. (2001), "Does the internet compete with or complement bricks and mortar bank branches?", *International Journal of Retail & Distribution Management*, Vol. 29 No. 6, pp. 272-81.
- Yousafzai, S.Y., Pallister, J.G. and Foxall, G.R. (2003), "A proposed model of e-trust for electronic banking", *Technovation*, Vol. 23 No. 11, pp. 847-60.
- Yusliza Mohd.Yusoff, Zikri Muhammad, Mohd Salehuddin Mohd Zahari, Ermy Syaifuddin Pasah, and Emmaliana Robert (2009), "Individual Differences, Perceived Ease of Use, and Perceived Usefulness in the E-Library Usage", *Computer and Information Science*, Vol. 2, No. 1.
- Zeithaml VA, Parasuraman A, Malhotra A (2002), "Service quality delivery through Web sites: a critical review of extant knowledge", *Journal of Academic Marketing Science*, 30(4): 362-375.

APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

Dear respondent,

You have been selected to participate in a research about **“Perceived Risk, Trust, Perceived Ease of Use, Perceived Usefulness and Internet Banking Adoption in Uganda”**, as part of the requirements for the award of the Master of Science in Marketing of Makerere University. I kindly request you to contribute to this study by completing this questionnaire. The findings are purely for academic purpose and will be treated with utmost confidentiality.

SECTION A: PERSONAL INFORMATION

Gender

Male ☐

Female ☐

Marital status.

Single ☐

Married ☐

Age:

18-25 ☐

26-30 ☐

31-35 ☐

36-40 ☐

40 and above ☐

Highest Level of educationSecondary ☐Diploma ☐Bachelor's degree ☐Masters ☐PHD ☐

Others (please specify)

Occupation statusCivil servant ☐Private sector ☐Self employed ☐

Others (please specify)

Income level (*per month*)

Less than 100,000/=	100,000 – 500,000/=	500,001 – 1,000,000/=	Above 1,000,000/=
☐	☐	☐	☐

Do you have access to internet?Yes ☐No ☐**How often do you access internet?**Once a week ☐twice a week ☐thrice a week ☐Daily ☐

What is your experience with Internet?

Less than a year	1 – 2 years	3 – 4 years	Above 4 years

Have you ever used Internet Banking?

Yes ☐ No ☐

If yes, what is your experience with Internet Banking?

Less than a year	1 – 2 years	3 – 4 years	Above 4 years

If no, do you intend to use it? Yes ☐ No ☐

SECTION: B PERCEIVED RISK

The following statements refer to your perceived risk towards Internet Banking. Evaluate each statement and tick in the appropriate box using the following scale where 1= *strongly Disagree (SD)*, 2= *Disagree (D)*, 3= *Not sure (NS)*, 4= *Agree (A)*, 5= *strongly agree (SA)*.

		<i>SD</i>	<i>D</i>	<i>NS</i>	<i>A</i>	<i>SA</i>
	Security	1	2	3	4	5
1	Money can be stolen if using internet banking.	1	2	3	4	5
2	I am worried about the security of internet banking.	1	2	3	4	5
3	Fake internet banking web servers may be shown online	1	2	3	4	5
4	Internet banking systems can be attacked or hacked into	1	2	3	4	5
5	Errors are made when using internet banking than using	1	2	3	4	5

	branch counters.					
Privacy						
1	I lose confidentiality of my financial transactions when using internet banking.	1	2	3	4	5
2	Other people might get access to information about my internet banking transactions.	1	2	3	4	5
3	Others internet banking users will know my personal details.	1	2	3	4	5
4	I lose control of my personal data with internet banking	1	2	3	4	5
5	When using internet banking privacy is not guaranteed.	1	2	3	4	5
Performance						
1	Internet banking works properly.	1	2	3	4	5
2	Using the Internet for handling online financial transactions is efficient.	1	2	3	4	5
3	The internet connection is available when using internet banking services.	1	2	3	4	5
4	The Internet enables me to handle online financial transactions accurately.	1	2	3	4	5
5	The Internet enables customers to access the accounts 24 hours and 7 days.	1	2	3	4	5
6	Internet banking is free of mistakes and errors.	1	2	3	4	5
Social						
1	I look unwise to others when I use internet banking.	1	2	3	4	5

2	My usage of internet banking is socially accepted to others.	1	2	3	4	5
3	My decision to use internet banking is socially accepted.	1	2	3	4	5
4	Internet banking improves my image in society.	1	2	3	4	5
Time						
1	Using Internet banking services is inconvenient because there are many banks on the street	1	2	3	4	5
2	I spend extra time solving problems that Internet banking could cause.	1	2	3	4	5
3	I am efficient when using internet banking.	1	2	3	4	5
4	Much time is wasted when performing internet banking operations.	1	2	3	4	5
5	Much time is required in learning to use online banking services.	1	2	3	4	5
6	I find it hard to choose a banking operation I need with internet banking.	1	2	3	4	5

SECTION: C TRUST

The following statements refer to your trust towards internet banking. Evaluate each statement and tick in the appropriate box using the following scale where 1= *strongly Disagree (SD)*, 2= *Disagree (D)*, 3= *Not sure (NS)*, 4= *Agree (A)*, 5= *strongly agree (SA)*.

Ability	<i>SD</i>	<i>D</i>	<i>NS</i>	<i>A</i>	<i>SA</i>
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1	Internet banking has the necessary abilities to carry out its work	1	2	3	4	5
2	Internet banking has the necessary resources to successfully carry out its activities.	1	2	3	4	5
3	I know exactly what happens when performing a transaction on the internet.	1	2	3	4	5
4	Internet banking functions as expected	1	2	3	4	5
5	My bank is competent in carrying out its online banking transactions	1	2	3	4	5
Integrity						
1	Internet banking fulfills the commitments and promises it assumes.	1	2	3	4	5
2	The information offered by internet banking is sincere and honest.	1	2	3	4	5
3	Internet banking is characterized by the frankness of the services that it offers to the consumer.	1	2	3	4	5
4	Internet banking services provide false statements.	1	2	3	4	5
5	Internet banking is characterized by the clarity of the services that it offers to the consumer.	1	2	3	4	5
6	My personal information is kept confidential while using internet banking	1	2	3	4	5
7	Transactions conducted through internet banking are secure	1	2	3	4	5
8	Internet banking carries out transactions as is intended by the	1	2	3	4	5

5	It is easy to become skillful with internet banking	1	2	3	4	5
6	Overall, I find internet banking easy to use	1	2	3	4	5

SECTION E. Perceived Usefulness

The following statements refer to your perception about the usefulness of internet banking. Evaluate each statement and tick in the appropriate box using the following scale where 1= *strongly Disagree (SD)*, 2= *Disagree (D)*, 3= *Not sure (NS)*, 4= *Agree (A)*, 5= *strongly agree (SA)*.

		<i>SD</i>	<i>D</i>	<i>NS</i>	<i>A</i>	<i>SA</i>
1	Using internet banking enables me to utilize banking services quickly.	1	2	3	4	5
2	Using internet banking improves my performance of utilizing banking services	1	2	3	4	5
3	Using internet banking increases my productivity.	1	2	3	4	5
4	Using internet banking enhances my effectiveness of utilizing banking services	1	2	3	4	5
5	Internet banking has made communications with banks much easier.	1	2	3	4	5
6	Using internet banking makes it easier for me to utilize banking services	1	2	3	4	5
7	Overall internet banking is useful for me to utilize banking services	1	2	3	4	5

SECTION F. INTERNET BANKING ADOPTION.

The following section aims at establishing your rate of adoption of Internet banking. Evaluate each statement and tick in the appropriate box using the following scale where 1= *strongly Disagree (SD)*, 2= *Disagree (D)*, 3= *Not sure (NS)*, 4= *Agree (A)*, 5= *strongly agree (SA)*.

		<i>SD</i>		<i>N</i> <i>S</i>	<i>A</i>	<i>SA</i>
1	Using Internet banking speeds up banking.	1	2	3	4	5
2	Using Internet banking improves the quality of banking.	1	2	3	4	5
3	Using Internet banking makes banking easier.	1	2	3	4	5
4	Using Internet banking gives me greater control in banking.	1	2	3	4	5
5	Using Internet banking enhances banking.	1	2	3	4	5
6	Assuming that I have access to the on line banking systems, I intend to use it.	1	2	3	4	5
7	I intend to increase my use of online banking systems in the future.	1	2	3	4	5
8	I am willing to use online banking.	1	2	3	4	5
9	I like to use new methods like Internet banking to conduct banking transactions	1	2	3	4	5
10	I recommend others to use Internet banking	1	2	3	4	5

THANK YOU FOR YOUR COOPERATION.