

**PERCEIVED EASE OF USE, USEFULNESS, TRUST,  
INFORMATION ACCESSIBILITY AND ACCEPTANCE OF  
ELECTRONIC FUNDS TRANSFER.**

**BY**

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## Declaration

I, **AULA Modesto Ogwang**, do hereby solemnly declare that, to the best of my knowledge this dissertation is my original work and has never been submitted for the award of a degree in any University and that the material that is not my original work has been indicated and/or acknowledged accordingly.

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## Approval

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## **Dedication**

I hereby dedicate this piece of work to my beloved parents, the Late Isidoro Ogwang (RIP) and Mrs. Gwentolina Aweli Ogwang, who despite their meager resources endeavoured to sacrifice a greater proportion to my education. I believe that it's that sacrifice, my efforts and the support I received from different players at the various educational institutions I have attended that facilitated my learning processes. My parents' action has always inspired me to continue to seek for knowledge and skills so as to be able to provide a better service to our beloved country, Uganda.

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## **Abbreviations and Acronyms**

ACH	Automated Clearing House
ATB	Attitude Towards Behaviour
BI	Behavioural Intention
BIS	Bank for International Settlement
CPSS	Committee on Payment and Settlement Systems
EFT	Electronic Funds Transfer
IS	Information System
IT	Information Technology
MUBS	Makerere University Business School
PEU	Perceived Ease of Use
PT	Perceived Trust
PU	Perceived Usefulness
RTGS	Real Time Gross Settlement
STP	Straight Through Processing
SPSS	Statistical Package for the Social Sciences
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
UGX	International code for Uganda Shillings
USA	United States of America

## **Abstract**

The study was undertaken against the background that though banks in Uganda implemented Electronic Funds Transfer (EFT) system in August 2003 because of its expected benefits, its use was still low compared to the use of the other retail payment instruments such as the cheque and yet for the banks to realize the envisaged benefits of the system, it should be accepted by the customers. The objectives of the study were to establish if the low usage can be explained by the relationships between customers' perceptions (in terms of usefulness, ease of use, trust and access to information) on the system, attitude towards using it, intention to use it and acceptance of the system.

The study was conducted as a cross-sectional survey using pre-coded questionnaires, administered to a sample of 178 customers selected from 8 of the 15 commercial banks operating at the time of the study. Data was analyzed using SPSS so as to obtain descriptive and inferential statistics. The results have confirmed results of similar studies done in the developed/developing world; that there exist positive relationships between banks customers' perceptions about the EFT system and their attitudes towards it. The result also indicated that banks customers' attitudes affect their intentions to use the system, which ultimately affect their acceptance. The regression analysis indicated that the predictors could explain up to 39.4 % of the banking customers' acceptance of the system.

Banks consequently need to carry out public awareness and education campaigns and also train their employees in handling these new banking innovations and products/services so as to improve on customers' perceptions and encourage others to use banking facilities including the EFT system. These efforts would specifically facilitate the improvement of banks' service delivery and generally promote banking habit in the country.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Over the years the banking industry has witnessed a number of innovations as a result of economic liberalization and technological developments. One such innovation is the electronic payment systems that are used to discharge payment obligations between financial institutions and their customers in a non-physical form that would ordinarily involve the use of either cash and/or cheques. Though there are global differences in the intensity of use of different payment instruments, generally countries in the developed and developing worlds are shifting towards the use of these electronic payments due to their relative advantages. An electronic payment is considered safe, secure, efficient, and less expensive with the USA estimates of between one third and one quarter of paper-based payments.

In line with the global trends, Bank of Uganda in collaboration with the commercial banks implemented the Electronic Funds Transfer (EFT) system in 2003. Though banks have tried to promote the system's use and acceptance through brochures, radio, TV and newspaper adverts, its use was still low compared to the use of cheques as indicated by the Kampala Automated Clearing House (ACH) statistics on Table 1.1 below. In the first quarter of its introduction, the EFT contributed only 1.3% and 0.5% of the volumes and values exchanged in the Kampala ACH respectively. In the April-June 2007 quarter, these figures had increased to only 14.9% and 6.7% respectively. There was however a sharp increase in the usage of EFT in the July/September 2007

quarter because of Government's policy decision to use EFT as the principle mode of payments effective July 2007.

**Table 1.1: Kampala ACH Statistics**

*(Quarterly Volume and Values: 3rd Quarter 2003 to 3rd Quarter 2007)*

Quarter	Cheques		EFT		Total Clearing		EFT Percentage	
	Items ('000)	Value (Billion)	Items ('000)	Value (Billion)	Items ('000)	Value (Billion)	Items	Value
<b>Jul - Sep 03</b>	473	2,308	6	12	479	2,320	1.3%	0.5%
<b>Oct - Dec 03</b>	348	1,785	14	26	362	1,811	3.9%	1.4%
<b>Jan - Mar 04</b>	338	1,834	17	27	355	1,861	4.8%	1.5%
<b>Apr - Jun 04</b>	330	1,836	18	33	348	1,869	5.2%	1.8%
<b>Jul - Sep 04</b>	339	1840	20	48	359	1,888	5.6%	2.5%
<b>Oct - Dec 04</b>	341	1853	24	74	365	1,927	6.6%	3.8%
<b>Jan - Mar 05</b>	340	1,896	29	114	369	2,010	7.9%	5.7%
<b>Apr - Jun 05</b>	578	3,225	47	137	625	3,362	7.5%	4.1%
<b>Jul - Sep 05</b>	377	2,093	35	77	412	2,170	8.6%	3.5%
<b>Oct - Dec 05</b>	382	2,305	39	90	421	2,395	9.3%	3.8%
<b>Jan - Mar 06</b>	362	2,229	37	93	399	2,322	9.3%	4.0%
<b>Apr - Jun 06</b>	387	2,230	44	123	431	2,353	10.1%	5.2%
<b>Jul - Sep 06</b>	384	2,317	43	130	427	2,447	10.0%	5.3%
<b>Oct - Dec 06</b>	390	2,663	44	124	434	2,787	10.1%	4.4%
<b>Jan - Mar 07</b>	378	2,732	42	126	420	2,858	9.9%	4.4%
<b>Apr - Jun 07</b>	349	2,508	61	180	410	2,688	14.9%	6.7%
<b>Jul - Sep 07</b>	312	1,011	117	647	429	1,658	27.4%	39.0%

Source: Bank of Uganda.

Policy makers in the banking industry are therefore concerned about the issue of acceptance of the EFT system because a system's acceptance forms the basis of

measuring its success or failure and also acts as an indicator of the revenues banks are likely to generate from the EFT services rendered to customers. An electronic funds transfer system can be used to settle various categories of payment obligations such as school fees, utility bills, salaries and others. Because of its electronic nature, it is easier for a bank to automate the processing of its transactions using Straight Through Processing (STP).

Despite its various uses, a number of reasons have been attributed to the low acceptance of the EFT system. In Uganda cash has been predominant for decades hence many people cannot perceive new payment innovations such as the EFT as useful unless they are sensitized on their uses, including the advantages and disadvantages vis-à-vis the other alternatives. Interactions with some people outside the banking industry also confirm the lack of information on the EFT system. The continued bank customers' use of cash and cheques despite numerous associated disadvantages such as theft, high social cost, transportation cost, processing cost, forgery and float is because the public is not well informed about the electronic funds transfer (EFT) system, hence exclude it while deciding on what payment instruments to use when executing payment obligations. For an EFT payment to be made, all relevant payment information like amount, payee details; account title, account number, bank and bank branch must be provided to the bank processing the transaction. To some people this is really cumbersome as opposed to other payment modes like cash and cheque. Also EFT transactions require the parties to have bank accounts and yet in Uganda with a population of over 28 million, there are just about 1.5 million accounts. The low-banked population may be due to low incomes and lack of banking habits in Uganda that means that most Ugandans do not qualify to use the



EFT system. An EFT credit is supposed to be applied within a day, while an EFT debit should be applied within two days, which means that a beneficiary should realize value on the EFT within a day or two respectively. However, because some banks still process their transactions manually, the postings of EFT transactions may delay leading to delayed realization of funds by payees/beneficiaries, which may lead to public mistrust of the EFT system as an efficient and reliable means of making and receiving payments.

## **1.2 Statement of the Problem**

Though banks in Uganda provide electronic funds transfer (EFT) payment services to their customers, its acceptance was still very low. This view was supported by the percentage of monthly EFT values presented in the Kampala ACH which increased just from 0.5% to 6.7% from the first quarter (July – September 2003) when the Kampala ACH System started processing EFT instructions to the April – June 2007 quarter (Table 1.1 above). It is believed that the low acceptance or usage of EFT system in Uganda was because banks' customers had negative behavioural intention to use the system, which was likely to have been caused by their negative attitude towards using it that could have resulted from their negative perceptions about its usefulness, ease of use, and trust, as well as lack of sufficient information on the system.

## **1.3 Purpose of the Study**

The purpose of the study was to examine the relationship between the variables that affect acceptance of electronic funds transfer system; customers' perceptions, attitude, intention and acceptance of the EFT system in Uganda. The study was to establish

whether banks' customers would accept to use EFT system if they conceived the system to be useful, easy to use, trustworthy and information about it was available.

#### **1.4 Objectives of the Study**

- (i) To establish the relationship between perceived usefulness, attitude and intention to use EFT.
- (ii) To establish the relationship between perceived ease of use, attitude and intention to use EFT.
- (iii) To establish the relationship between perceived trust, attitude and intention to use EFT.
- (iv) To establish the relationship between information accessibility, attitude and intention to use EFT.
- (v) To establish the relationship between intention to use and acceptance of EFT.

#### **1.5 Research Questions**

- (i) What is the relationship between perceived usefulness, attitude and intention to use EFT?
- (ii) What is the relationship between perceived ease of use, attitude and intention to use EFT?
- (iii) What is the relationship between perceived trust, attitude and intention to use EFT?
- (iv) What is the relationship between information accessibility, attitude and intention to use EFT?
- (v) What is the relationship between intention to use and acceptance of electronic funds transfer system?

## **1.6 Significance of the Study**

The implementation of electronic funds transfer system by banks in Uganda was intended to improve service delivery and also to enhance efficiency, reliability and safety of the national payment systems. The banking industry could only achieve these desired outcomes if the banking public accepted the EFT system.

The significance of the study therefore was first to identify factors that affect acceptance of EFT system so as to guide policy makers in banks to design policies and programmes that would facilitate the inducement of not just a few but the majority of the customers of banks to accept EFT system as a fast, safe and reliable means of making payments from a bank account (payer) to an account in another bank (beneficiary/payee).

Secondly the study would provide information useful in creating public awareness about EFT system as one of the payment systems available in Uganda in addition to the other common ones like cash and cheques that have been in existence for decades.

The study too would facilitate future researchers to identify related research topics in the field of payments and settlements systems, which is fairly a new field of study in many of the developing countries such as Uganda.

## **1.7 Scope of the Study**

### **Geographical Scope**

The study was carried out in Kampala using data collected from customers of selected commercial banks.

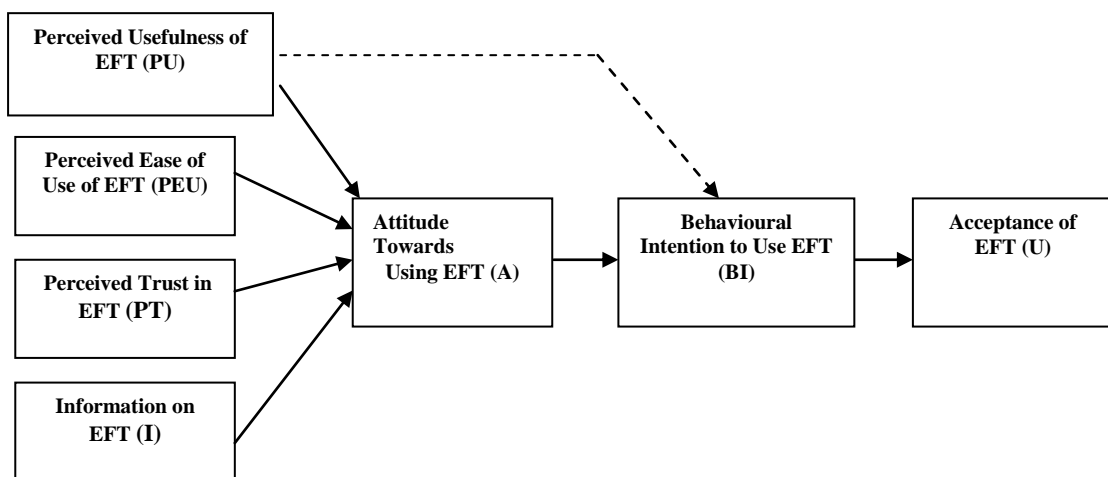
## Subject Scope

The study was focused on establishing the relationships between banks customers' perceptions about the EFT system, their attitudes towards the use of the system, their intention to use it and the acceptance of the EFT system to make and receive payments.

### 1.8 Conceptual Framework

The research model (Figure 1.1 below) was based on Davis (1989), Technology Acceptance Model (TAM), which uses Ajzen and Fishbein's (1980), Theory of Reasoned Action (TRA) as a theoretical basis for identifying the strong casual links between beliefs.

*Figure 1.1: The EFT Acceptance Model*



**Source:** Adapted from Davis D.F. (1989), Technology Acceptance Model (TAM); Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA).

In addition to the original TAM factors of Perceived Ease of Use of a system and Perceived Usefulness of a system, the EFT Acceptance Model was extended to include

two additional factors that had been used in other research works such as Suh and Han (2002) on the effect of trust on consumer acceptance of internet banking and Tero, Kari, Heikki and Seppo, (2004) on the effect of information on acceptance of online banking. Trust and information on the EFT system, just like perceived usefulness and perceived ease of use of the EFT system were expected to affect the attitude of customers towards the use of the EFT system which would in turn affect their behavioural intention to use the system that ultimately would lead to acceptance or non acceptance of the EFT system by the customers of the banks.

## **1.9 Electronic Funds Transfer and Payment Systems Reforms**

### **1.9.1 Payment System**

The Bank for International Settlement (BIS)'s Committee on Payment and Settlement Systems (CPSS) Red Book, 2003 defines a payment system as a system that supports the transfer of financial value between the paying and receiving parties in a transaction. It facilitates the flow of funds in an economy for the sale of goods and services and includes the payment instruments, processes, institutions, legal and regulatory framework and the physical infrastructures that support and lead to the transfer.

BIS (2003) also noted that different countries are at different levels of developments of their payment systems due to differences in factors obtaining in the countries which include the following: The financial intermediaries such as deposit taking institutions, inter-bank associations and the Central Bank, that provide payment, clearing and settlement services; the legal framework, which covers the governance of payment activities and regulatory structure of financial institutions that provide payment, and the

payment instruments and settlement mechanism that are used to discharge payment obligations between and among financial institutions and their customers and these include both the physical instruments like cash, cheques and bank drafts, and the non-physical instructions used in the EFT and real time gross settlement (RTGS) systems.

In an effort to promote developments in the payment systems a number of projects have been carried out around the world. In the United States of America these included the development of new means of making payments and alteration of existing means with some being successful while others failed. Overall, it was found out that the use of electronic instruments had become more common in the United States in the 90s as a result of growth in online commerce and banking that were being used to access funds from traditional deposit accounts by way of credit and debit cards. Consequently, the Reserve Banks had to reduce by half the number of offices processing paper cheques as was contained in the speech by Kohn D. L., Vice Chairman of the Federal Reserve Bank at the Western Payments Alliance 2006 Payments Symposium.

### **1.9.2 Electronic Funds Transfer**

The Electronic Funds Transfer (EFT) system is a system that provides for electronic payments and collections of funds. In the system remittance can easily be made from a participating bank to another participating bank or a sponsored financial institution by presentation in the ACH of such data to be processed/applied by the beneficiary bank or a sponsored financial institution.

An electronic fund transfer instruction which can be either a direct debit or a credit transfer is considered safe, secure, efficient, and less expensive than paper based

payments and collections as a result of advancements in technology. It is however surprising that the usage of cheques as a non-cash payment instrument is still high in many countries. This phenomenon is a challenge to investors and policy makers because of the significant uncertainty regarding the success of investments in modern electronic technologies. The Federal Reserve Bank in a Staff Study however noted that in order to strengthen both the safety and efficiency of various elements of electronic payment systems innovations are desirable.

### **1.9.3 Payment and Settlement Systems Reforms in Uganda**

Since 1998, Bank of Uganda has been working deliberately to develop and modernize the country's payment systems. It all started with a payment system stocktaking survey to establish the state of the country's payment systems. The survey revealed that cash was predominant, while cheques were the most used non-cash instruments, and that there was very low usage of electronic instruments as reported in the Stocktaking and Situation Analysis Report, Bank of Uganda, August (2003).

As a result of the survey, a number of action plans were agreed upon for undertaking over the years. A National Cheque Standard was adopted in 2003 to harmonize cheques issuance, enhance speedy processing of cheques and to remedy against cheque frauds. The Kampala ACH system was implemented in August 2003 to automate clearinghouse processing and to reduce on time spent in the clearinghouse and to facilitate both the physical and electronic payment instruments processing at banks. The Uganda National Interbank Settlement (UNIS) system, a Real Time Gross Settlement (RTGS) system was also implemented in February 2005 for electronic processing of large value and time critical payments.

Other reforms included the capping of cheques; setting a regulatory upper limit on the amount on cheques at Uganda Shillings 20 Million effective July 2007. Due to the risk inherent in the use of cheques, the cap is intended to limit the exposure of beneficiaries and/or their banks by encouraging the use of Electronic Funds Transfer and Real Time Gross Settlement systems. As a result the Government of Uganda adopted the EFT as the principle mode of making payments (Bank of Uganda, 2007). Likewise the implementation of EFT Direct Debit for school fees payments in February 2007 was intended to remedy the inconveniences faced by concerned parties when paying fees at about the start of every term or semester (Bank of Uganda, 2007).



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter presents the literature review. It starts with an overview of the concept of information systems acceptance; highlighting the various models that have been employed over the years to explain acceptance of different information systems. The literature is then focused on the review of the relationships between the variables that have been found to influence acceptance of information technology (IT) innovations with emphasis on those that are relevant to banking innovations.

#### **2.2 Overview of Information Systems Acceptance**

Over the past decades, a number of studies have been made to explain, predict and increase user acceptance of various information systems based on different theoretical approaches that included; the theory of diffusion of innovation (Rogers, 1962, 2003), the theory of reasoned action – TRA, (Ajzen and Fishbein, 1975, 1980), the theory of planned behaviour - TPB, (Ajzen and Fishbein, 1988, 1991) and later the technology acceptance model – TAM (Davis, 1989).

Some studies in the field of marketing looked at adoption of a product or service that may indicate acceptance of that product or service as a process (Busch, 1995; Childers, 1986; Dabholker, 1996 and Rogers, 1995). In an earlier study (Rogers, 1962) proposed a model, the diffusion of innovation based on five product or service characteristics that influence consumers adoption or acceptance of any new product or service. And these included; relative advantages, comparability, simplicity or complexity, observability

and triability. Other research works that have since incorporated the diffusion model in their empirical studies to examine technological innovations were those of Abbate, (1999); Sinel, (2000); and Karjaluoto; Mattila & Pentto, (2002).

The Theory of Planned Behaviour (TPB) of Ajzen, (1988, 1991) has been found to be helpful in predicting deliberate behaviour, because it postulates that behaviour can be planned. The TPB is a successor of an earlier theory, the Theory of Reasoned Action (TRA) of Ajzen & Fishbein (1975, 1980). The addition of perceived behavioural control in the Theory of Planned Behaviour was a result of a discovery that behaviour appeared not to be 100% voluntary behavioural belief about the likely consequences of a behaviour and under control, as had been assumed under the TRA. In short according to the TPB, human action is guided by three kinds of considerations that include; the behavioural belief about the consequences of a behaviour; the normative belief, which is about the normative expectations of others; and the control belief, which is about the presence of factors that may facilitate, or may impede the performance of the behaviour.

The Technology Acceptance Model - TAM (Davis, 1989; Bagozzi and Warshaw, 1989) was also adapted from the Theory of Reasoned Action (TRA) (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980). It posits that users' adoption of any new information system is determined by the users' intention to use that system, which in turn is determined by the users' beliefs about that system.

The Technology Acceptance Model further postulates that two beliefs; the Perceived Usefulness (PU) of an information system and the Perceived Ease of Use (PEU) of the

system are instrumental in explaining the variance in the intention of users to use the system. The model further adds that Perceived Ease of Use (PEU) and Perceived Usefulness (PU) are influenced by external variables. According to the Theory of Reasoned Action, external stimuli influence a person's attitude towards a behaviour indirectly by influencing his/her salient beliefs about the consequences of performing that behaviour.

It is however important to note that the Technology Acceptance Model's fundamental factors/variables do not fully reflect the specific influences of technological and usage-context factors that may alter user acceptance (Davis, Bagozzi, & Warshaw, 1989). It is therefore for this reason that different variables have been used as external variables in different TAM research works, with constructs such as Perceived Playfulness (Moon & Kim, 2001), Compatibility (Chen, Gillenson & Sherrell, 2002), Perceived User Resources (Mathieson *et al.*, 2001), Trust (Gefen, Karahanna & Gefen, 2003), Trustworthiness (Carter & Bélanger, 2005) and Perceived Credibility (Wang, Wang, Lin, & Tang, (2003). The variation in the use of external variables is a confirmation that external variables used in a specific study are dependent on the context of the specific system under study.

Despite indications that some people perceive electronic banking such as Internet banking as risky (Alsajjan & Dennis, 2006), there are indications that the advantages of electronic banking outweigh the disadvantages for both banks and their customers. Banks therefore invest in the computer-based tools/systems such as those for electronic banking basically because they expect to improve their service delivery despite end users' reluctance to use them (Davis, *et. al*, 1989), especially at an early stage of system

implementation. So the issue is why don't bank customers consider the use of these systems in performing their banking transactions? Mols *et al.* (1999), contributed in the argument by stating that the diffusion of new electronic banking services such as online banking is determined more by customer acceptance rather than by the seller (bank) offerings per se. So banks need to direct their efforts to induce users' acceptance of these systems by providing useful information to customers about any system/service that they are offering.

Technology Acceptance Model (TAM) considers users' low acceptance of a new information system to be the biggest barrier to the success of any new information system (Gould, *et al.*, 1991). Davis (1989), however argued that adoption of any information system happens primarily because of the functions that system performs and secondarily due to the ease or difficulty experienced by users in making the system perform its functions. Jinkook (1999), also made additional contribution that people who believe that a particular banking technology was useful, reliable, secure and easy to use were more likely to try it, regardless of their background.

Other theories that have also been applied in studies to explain user adoption of information system (IS) include; the Social Cognitive Theory – SCT, (Compeau & Higgins 1999) and the Triandis' Model (Thompson, Higgins, & Howell, 1994; Cheung, Chang & Lai 2000). Overall, these theories have provided useful insights into the cognitive, emotion, affective and behavioural reactions of individuals to information systems that eventually determine the extent to which they are willing to use the systems to perform their respective functions.

### 2.3 E-banking Acceptance and Demographic Characteristics

Though some earlier studies had pointed out that adoption of any information system is based on its functions and the ease of performing these functions irrespective of the users background (Davis, 1989; Jankook, 1999), other studies on adoption/acceptance of electronic payments have indicated some demographic relationships. There have been consistent indicators that in the absence of direct pricing, electronic payments have greater adoption rates among the young adults and individuals with higher incomes (Zeithami & Gilly, 1987; Trocchia & Janda, 2000; Vale & Bent, 2001; Karjaluoto, Mattila, & Pento, 2002). The apparent rationale is that young adults are more open to new products and do not have a history of relying on traditional paper-based payments such as cash in the case of Uganda or cheques which was evident in the United States of America and paper giro payments that was common in most of Europe and Japan in the past decades.

On the other hand the high-income individuals have been found to have a higher opportunity cost for the often greater time it takes to initiate a paper versus an electronic transaction. From this standpoint the low income levels in most Third World countries seems to be the reason that supports the predominance of cash usage in these countries, including Uganda. Humphrey *et al* (2001) contribution to the debate was that; when the non-price factors are relied on, the adoption/acceptance of electronic payments would be slow and the hidden discounted value of the unrealized gains can be large. They suggested that the solution to this problem would be for banks to price their products according to their differential cost of production so that users may choose the payment instrument with the lowest net price/non-price cost.

Humphrey *et al* (2001) however cautioned that there are institutional barrier to the above market approach because of the resistance or conservative nature of banks in most countries in that; traditionally consumers of payment services have paid for them through lost interest on transaction balances. And that most banks fear a loss of the deposit market share if they were to directly priced their transactions according to their respective costs.

On the basic of the above arguments it can be concluded that because banks direct their marketing campaigns towards the young and educated, the results of a number of studies have indicated that income level and educational level affect acceptance of information technology system. An increase in income and educational level tend to positively relate to the adoption of an IT innovation (Donnelly, 1970; Uhi, Jayawardhena and Foley, 2000; Mattila, 2001; and Karjaluoto *et al.*, 2002).

Other studies seem not to agree wholly with the view that demography is a key factor to adoption of banking technology. In a study carried out by Ohio State University (1999) it was found out that when it comes to people desire to use ATM and online banking, it's not just the young, educated and affluent who are interested. The study indicated that while conventional wisdom suggests that young, affluent, and highly educated people are more apt to try new technology, it was found out that these groups use electronic banking more often only because banks target and market the technology to them but not because of demography. This standpoint was also alluded to by Jinkook (1999), in a remark that banks are driving the demographics of their customers with their own-targeted marketing campaigns.

In other studies relating to other demographic characteristics such as gender it was found that gender has no direct effect on acceptance/adoption of banking information technology (Taylor and Todd, 1995; Gefen and Straub, 1997). In some of the studies it was however suggested that men have more adoption rate than women (Gefen & Straub, 1997).

The main argument from the above literature is that once people were introduced to a banking service, what really matters was their personal attitude towards the technology, regardless of their age, income, or education. The contention therefore is in agreement with the concept that a person's attitude towards an information system is a key determinant of his acceptance of that system such as is the case with banking technologies like the EFT and the RTGS systems.

#### **2.4 Perceived Usefulness, Attitude and Intention to Use**

Davis defined perceived usefulness as; “the degree to which a person believes that using a particular system would enhance his/her job performance” (Davis 1989). Enhancement of job performance in respect of the EFT system refers to enhancement of the tasks of making a payment in the context of speed, convenience and reliability. According to Davis, 1993, attitude is, “the degree of evaluative effect that an individual associates with using a target system to perform his or her job”. According to East (1997) attitude can also be viewed as what we feel about a concept, which may be any entity about which we can think and to which we can attach feeling. It is therefore argued that attitude play an important role in the adoption of any information system (Swason, 1988; Davis *et al.*, 1989) and eventually the actual system usage (Swanson, 1987).

Ajzen and Fishbein (1980) similarly viewed attitudes in two aspects that included: the attitude towards objects which is a person's affective evaluation of a specific attitude object, and the attitude toward action (behaviour), which is a person's affective evaluation of specified behaviour involving the object. Bagozzi *et al.*, (1992) further explained that there is little evidence that attitude toward objects stimulates action, so they concluded that it is attitude toward action that is employed in the Technology Acceptance Model (TAM) studies. According to East (1997), salient beliefs are beliefs that come to mind easily, are easily recorded and occur frequently in a group.

The two related beliefs; the Perceived Usefulness of a system and the Perceived Ease of Use of a system, as used in the Technology Acceptance Model (TAM) could be generalized across different settings. This is because users do not use a system just for its own sake; they use it because of their attitudes towards using it, which drive their value according to the utility provided by the combination of their attributes towards the system less the disutility represented by the various sacrifices they make when using the system (Snoj *et al.*, 2004).

Many studies have tested perceived usefulness effects and its correlations with users' attitude and behavioural intention to use a specific system. Their results found these links to be statistically significant. Extensive research has provided evidence that Perceived Usefulness of a system has a direct influence on Attitude towards using the system (Davis, 1989). Similarly it has been proven that there is significant effect of users' Perceived Usefulness of an information system on the Intention of users to use



the system (Davis *et al.*, 1989; Agarwal and Prasad, 1999; Hu *et al.*, 1999; Venkatesh and Morris, 2000; Agarwal and Karahanna, 2000).

Some of the studies also indicated that perceived usefulness of a system is one of the strongest variables impacting on users' intention to use the system, with a standardized regression coefficient typically around 0.6 (Venkatesh and Davis, 2000). The impact of Perceived Usefulness of a system as a major determinant of behavioural intention to use the system was also confirmed in other studies (Chau *et al.*, 2002, Bernadette Szajna, 1996) and it is believed to correlate highly with various usage dimensions such as self-reported current usage (Adams *et al.* 1992) and self-predicted future usage (Agarwal *et al.*, 1997).

Chin and Abhijit (1995) earlier on had found evidence that perceived usefulness of a system is a stronger predictor for inexperienced users' intention towards using the system. Together with perceived usefulness of a system, attitude towards using the system is a significant predictor of intention to use the system and it is believed that perceived usefulness is the underlying factor on potential users' attitude to adopt and to continue using a system (Karahanna *et al.*, 1999). Szajna, (1996) on the other hand found out that at pre-implementation of a system, perceived ease of use of a system would have no effect on perceived usefulness of the system but would only have a significant effect after implementation of the system. This position was also confirmed in Chau (1996) study.

In his study Chau (1996), expanded perceived usefulness of a system into two constructs; perceived near-term usefulness, which deals with improving job

performance or enhancing job satisfaction and perceived long-term usefulness, which refers to improving one career prospects or social status (future consequences). The results showed that perceived near-term usefulness was the most significant factor affecting the user's intention to use a system and had a significant and positive influence on perceived long-term usefulness. That implies that a user who finds a technology useful in accomplishing current tasks is predisposed to believe it will be helpful in achieving his future career.

## **2.5 Perceived Ease of Use, Attitude and Intention to Use**

Perceived Ease of Use of a system is defined as the degree, to which a person believes that using the system will be free of effort (Davis, 1989). Even if potential users believe that a given information system is useful, they may at the same time believe that the system is too hard to use and that performance benefits of using the system are outweighed by the effort required to use the system (Davis, 1989), which therefore may impede their attitude towards using the system.

There is considerable evidence from earlier studies of the significant effect of users' Perceived Ease of Use of a system on their Attitude towards using the system, either directly or indirectly through its effect on their Perceived Usefulness (Davis, 1989; Agarwal & Prasad, 1999; Venkatesh & Davis, 2000; Venkatesh, 2000; Venkatesh & Morris, 2000). Indirectly, Perceived Ease of Use is shown as an antecedent of Perceived Usefulness and the former is seen as a state while the second is more of a process (Eriksson, Kent, & Katri, 2005).

The result of a survey on adoption of electronic banking by Kolodinsky, Hogarth & Hilger (2002), indicated that out of the customers who had signed up for e-banking, 1/3 had stopped using it due to unsatisfactory customer services or complexity of using the service. That meant that despite the fact that bank consumers had considered e-banking service to be a useful product but some were finding difficulty in using it, leading to the negative effect on their attitudes towards the service. Goldfard (2001) and Financial Technology Bulletin (2000) also indicated that in spite of the customers' willingness to adopt e-banking technologies, they wanted assurance that the experienced difficulties in using the e-banking services would be resolved and that some transactions would remain personal. It is therefore important that banks should always recognize the importance of customers' preferences and try to incorporate them when introducing new banking innovations.

Research works over the recent past decades also provided evidence of the significant effect of users' Perceived Ease of Use of a system on their Intention to use the systems (Davis, 1989; Agarwal & Prasad, 1999; Venkatesh & Davis, 2000; Venkatesh & Morris, 2000; Agarwal & Karahanna, 2000; Chau & Hu, 2001). Compared with a system's Perceived Usefulness, its Perceived Ease of Use was found to be the second most important determinant of a user's Behavioural Intention towards the system.

At the pre-implementation stage, users' Perceived Ease of Use of a system was found in some studies not to have a significant and direct effect on their Behavioural Intention to use the system, but instead affect their Intentions only through Perceived Usefulness of the system (Szajna 1996). This position was also found to be consistent with the results in Chau (1996) study where perceived usefulness was expanded to two constructs of perceived near-term usefulness and perceived long-term usefulness. The

Ease of Use of a system was found to have no significant direct relationship with its long-term usefulness but instead its effects on users' intentions to use the system were only through near-term usefulness of the system.

It was indicated that unless users perceived an information system as being useful, its ease of use has no effect on the formation of behavioural intentions to use it. A system that is easy to use is less threatening to a user (Moon & Kim, 2001), consequently his perceived ease of use has a positive influence on his perception of credibility in his interaction with the systems (Wang, Wang, Lin and Tang, 2003). So a consumer that perceives higher ease of use would develop a higher credibility perception towards the system that results into a positive impact on his intention to use the system.

For two systems that have identical functions for settlement of payment obligations such as the cheque system and the EFT system, the one that is perceived to be easier to use by bank customers would be perceived more useful. On the other hand if a system is perceived useless, its ease of use would not lead to adoption. One of the reasons why a user would accept to use an EFT system to make or receive payments is because of its relative advantage over the other methods of making payments; otherwise the user would opt for alternatives that he perceives to be easier to use.

According to Technology Acceptance Model (TAM), attitude influence behavioural intention. Some studies though suggested that attitude towards a system's use had no sustained effect on individual behavioural intention to use the system and only partially mediated the belief-intention link with other external factors. It can therefore be said that this was the main reason as to why in some studies on acceptance, the construct of

attitude was left out (Shengnan 2003). In studies where the construct of attitude was included, its effects on behavioural intention and its antecedents; the perceived usefulness and perceived ease of use were found to usually be in the positive direction to one's attitude towards using the system (Khalifa & Liu, 2003).

## **2.6 Perceived Trust, Attitude and Intention to Use**

While Technology Acceptance Model (TAM) focuses on the two main variables of Perceived Usefulness and Perceived Ease of Use of an information system as determinants of Behavioral Intention to use a system, other variables like Perceived Trust and Access to Information about a system have been found to have significant influence on Behavioural Intention of information system users and form other beliefs especially in respects to banking system innovations. Perceived Trust in a system is one of the other factors that has been investigated in a number of studies such as those on the Internet Banking (Suh & Han, 2002; Alsajjan & Dennis, 2006), and Online shoppers (Gefen, Karahanna & Straub, 2003).

### **2.6.1 Trust factor and e-banking**

The establishment of trust and confidence in a system are considered to play major roles when providing financial services (Palmer and Bejou, 1994). Trust as a belief was also considered to give credit to individuals who are not yet experienced in using a specific system and therefore considered very important in the initial stages of implementation of a system and the establishment of a relationship between the supplier of a product/service and the customers who used the product/service. Reichheld and Schefer (2000) also agreed with the disposition that inexperienced online customers needed to relay mainly on trust because they lacked adequate

information about what the product/service could offer to satisfy their demands and its reliability to fulfill such demands. This phenomenon is similar to the situation of the EFT system in Uganda because it was just introduced in the late 2003 and not many people have gain enough information and experience in using it. It was until July 2007 that the Government of Uganda through the Ministry of Finance, Planning and Economic Development implemented a fundamental policy decision to use EFTs as the principle mode of making various Government payments such as those for; salaries, allowances, pension and supplies that a significant increase in the use of EFT was recorded (see table 1.1 above).

According to Suh and Han, 2002, Trust is the belief that the promise of another can be relied upon and that, in unforeseen circumstances, the other party will act in a spirit of goodwill and in a gentle fashion towards the trustor. Trust was therefore considered to save people money and effort by reducing monitoring and legal contracts (Fukuyama, 1995), which would otherwise have been necessary to provide protection against any possible breach of the agreed terms and condition of service. Trust was also seen to provide measures for expected outcome (Kumar, 1996).

Generally, then, trust has been considered to be at the heart of all kinds of relationships between providers and users of systems (Morgan and Hunt, 1994). According to Alsajjan and Dennis (2006), trust even played a major role in electronic commerce (e-commerce) on account of the absence of proven guarantees that an electronic vendor would not get engaged in harmful opportunistic behaviour, and also because the environment of e-commerce has been less regulated. E-commerce is a new development and in many countries including Uganda and no comprehensive laws and

regulations exist but are just being developed. So in such an environment trust would play a major role in influencing people's reactions to e-banking products/services.

Consequently, it was believed that generally consumers would stay away from an e-service provider whom they did not trust (Jarvenpaa & Tractinky, 1999; Reichheld & Schefter, 2000). In contrast it was argued on the other hand that customers were even willing to pay premium prices for trusted electronic products or services (Sotgiu & Ancarani, 2005). It was, therefore, for that reason that the trust factor had been included in many fields of studies and theories including; social psychology (Blau, 1964), psychology (Rushton, 1980), contractual relations theory (Macneil, 1980), interaction theory (Hakansson, 1982), trust theory (Gambetta, 1988), organization theory (Bradach & Eccles, 1989), transaction cost economics (Nooteboom, Berger & Noorderhaven, 1997), on online banking (Suh & Han, 2002) and recently online exchange (Stewart, 2003).

### **2.6.2 Trust and Customers Attitude**

Some researchers have viewed trust as an intention (Moorman, Zaltman & Deshpande 1992; Mayer, Davis & Schoorman, 1995; Hosmer, 1995; Gefen, 2000). It was believed that trust was a person's willingness to be depended on the other party even though he had no control over his actions and reactions (McKnight and Cherveny, 2002). Some other researches in e-commerce though, viewed trust as a set of belief (Banesan, 1994; Gefen & Silver, 1999; Gefen, Karahanna & Straub, 2003), that dealt primarily with the integrity, benevolence, competence and predictability of a particular e-service vendor (Ganesan, 1994; Gefen and Silver, 1999; McKnight and Cherveny, 2002).

A number of research works on online banking has indicated that Perceived Trust has a striking influence on users' willingness to engage in online exchanges of money and personal sensitive information (Gefen & Keil, 1998; Friedman, Kahn & Howe, 2000). They therefore suggested that a model of technology acceptance with more social dimensions such as those related to e-banking requires that perceived trust in a system be included as another determinant in addition to Perceived Usefulness and Perceived Ease of Use of the system. Other researchers on online banking adoption also found trust issues and risk perception to be critical drivers (Bradley & Stewart, 2002) since trust was expected to create positive expectations about outcomes by transforming uncertain future actions into certain ones (Hosmer, 1995).

In one of the studies Jarvenpaa, Tractinsky, & Vitale, 2000, developed a model of consumer trust to explain consumer trust in an internet-based store. They used perceived size and perceived reputation of the Internet store as the trust factors. Their research indicated that Perceived Trust was positively associated with consumers' Attitude towards adoption or willingness to buy from the Internet store.

### **2.6.3 Trust and Customers Intention**

In a study of mobile payment solutions, it was found that trust factors played an important role in customer adoption. Customers were believed to be highly uncertain about suppliers, which can inhibit their intentions to trade (Gefen, 2000). Gefen, 2000 viewed trust as an effective factor in reducing customers' uncertainty, which would otherwise inhibit their behavioural intention to use an information system. In another study by the Federal Deposit Insurance Corporation (2001), it was also found out that consumers were concerned about security and privacy of their information in online



banking environments, which is an indication of the lack of trust they had on the security of the information supplied on the Internet. In this study on electronic funds transfer (EFT) system acceptance, trust would therefore be considered important because the parties must be confident that the payments they would make through the system would be applied on time as per instructions and that the associated payment information (payer, beneficiary and bank details) would not be used for other purposes that could put or expose the respective parties to the transaction to risks of loss due to misuse of the supplied information.

Though perceived ease of use of a system was found to be a significant antecedent of the trust-related construct in some studies (Gefen *et al.*, 2003; Wang, 2003; Luarn & Lin, 2005), other studies have treated trust factor as a separate construct from the construct of ease of use (Suh & Han, 2002). Despite the variation in the treatment of trust factors in different study contexts, a number of writers/researchers contended that trust was more important in the e-commerce context than in other transaction channel (Gefen, 2000; Reichheld & Scheffer, 2000; Jarvenpaa *et al.*, 2000; Gefen *et al.*, 2003; Harris and Good, 2004). This was therefore the reason as to why Perceived Trust in electronic funds transfer system was included as a significant factor in this study.

## **2.7 Information Accessibility, Attitude and Intention to Use**

New product diffusion theories pointed to the important role of consumer awareness in promoting acceptance of a product/service, which was postulated to be affected by the consumer intention to use the product/service. A consumer could only form an intention about a product if he had information about its availability as well as knowledge about its uses plus the associated advantages and disadvantages. Access to

Information (AI) about a system had been investigated in some studies as one of the factors that influence Behavioural Intention of users such as was the case in online banking research (Tero, Kari, Karjaluoto & Seppo, 2004).

In a 1998 Federal Reserve Bank of St. Louis study, it was found out that 99% of consumers indicated that they understood electronic direct deposit and that 97% were satisfied with the service, however only 55% felt they understood electronic bill payment system. These outcomes provided evidence that customers had more information about electronic direct deposit and they had very little information on electronic bill payment system despite the fact that both are electronic payment systems. Therefore, the amount of information consumers have about a banking system had been identified as a major factor impacting on customers' intention to use the system/service which ultimately would impact on its adoption or acceptance. According to Sathye, 1999, while the use of online banking services are fairly new experiences to many people, low awareness was one of the major factors causing people not to adopt online banking products.

In another study in Australia it was also found that consumers were unaware of the advantages and disadvantages associated with online banking. In the same context, it seems one of the factors inhibiting the use of electronic funds transfer (EFT) system in Uganda could be that, the would-be users do not have enough information about it, which otherwise would have encouraged them to use the EFT system by improving on their attitudes towards its use that would have in turn improved on their intention to use the system. In extreme situations, bank customers are not even aware of the availability

of the electronic funds transfer services at banks as was revealed by verbal interactions with some colleagues and friends around Kampala.

During the Proceedings of the 32<sup>nd</sup> Hawaii International Conference on System Sciences, Malhotra & Galletta, 1999, indicated in their presentation on “Extending the Technology Acceptance Model to Account for Social Influence” that users’ personal involvements in the use of a new system and their better appreciation of the capabilities of the system would yield internalization and identification that would have a positive effect on their attitude towards using the system. That, they argued, was opposed to a situation where users of a system in an organization were just using a system as a matter of compliance imposed on them by top executive management. It was noted that such imposed compliance may degenerate into negative attitude towards the use of the system especially if the employees and customers are not involved in the implementation of the system and have no information about the benefits and the functions the system could perform but were just being coerced by management to comply.

As a common knowledge, a user could only have a personal involvement and appreciation of a system if he had relevant information about the system. The literature reviewed seems to be in conformity with the general belief that information accessibility about the uses/functions, advantages and disadvantages of any information technology innovation (information system) has an effect on users’ attitude towards its use and subsequently on their intention to use the system.

## 2.8 Intention to Use and Acceptance

Intention has been defined by Ajzen, 2002, as an indication of a person's readiness to perform a given behaviour. He viewed behaviour as an observable response in a given situation with respect to a given target. Meanwhile, Technology Acceptance Model (TAM) assumed that behaviour was a decision that one takes (Alsajjan and Dennis, 2006).

As noted earlier, a number of studies have been carried out on users' acceptance of information systems based on different theoretical approaches. According to the Theory of Diffusion, customers' perceptions of the characteristics of an innovation (information system) affect its adoption (Moore & Benbasat, 1991; Rogers, 1995; Plouffe, Hulland, & Vandenbosch, 2001). On the other hand the intention-based theories that include the Technology Acceptance Model (Davis *et al.* 1989; Venkatesh & Davis, 1996, 2000), and the Theory of Planned Behaviour, (Mathieson, 1991; Taylor & Todd, 1995; Venkatesh & Brown, 2001) have all shown that users adoption/acceptance and usage of an information technology innovation or information system is ultimately determined by their beliefs and attitudes toward that information system.

Recent studies have indicated that there exist a significant positive correlation between behavioural intention and behaviour. In that respect, behaviour has been seen as an indicator of usage (acceptance). In their study, Taylor & Todd, 1995, however found a difference in two categories of users; in that behavioural intention predicted behaviour more strongly for experienced users than the inexperienced users. Venkatesh & Davis, 2000, further pointed out that behavioural intention fully mediated the influence of the

other factors on immediate use or short-term use of a system but did not have effects on continued use. Their results showed that short-term use is the sole predictor of continued usage, not behavioural intention.

It would, therefore, be deduced from the above reviewed literature on acceptance of various electronic banking products/services, that users intention to use electronic funds transfer system would positively affect their acceptance to use the system.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter outlines the methodology that was used to carrying out the study. It covers; the research design, data collection methods and instruments, study population, sample size, sampling techniques, and data presentation and analysis.

#### **3.2 Research Design**

The research was conducted as a cross-sectional survey. The research was based on selected customers of sampled commercial banks to establish the correlation between the independent variables and the dependent variable.

#### **3.3 Study Population**

The study population was comprised of the customers of the 15 commercial banks. It was estimated that there were about 1.5 million accounts held by the customers of the commercial banks that were operating in Uganda at the time the survey was conducted and they included the following banks; Bank of Africa, Bank of Baroda, Barclays Bank, Cairo International Bank, Centenary Bank, Citibank, Crane Bank, DFCU Bank, Diamond Trust Bank, National Bank of Commerce, Nile Bank, Orient Bank, Stanbic Bank, Standard Chartered Bank and Tropical Bank.

#### **3.4 Sample size**

In determining the sample size a number of considerations were made. Initially, there was a need to decide on the basis of determining the sample size. Roscoe, 1975, rule of

thumb recommended between 30 and 500 as an appropriate sample size for most studies. The rule proposed that in multivariate research such as this one involving the use of multiple regression analysis; the sample size should be at least ten times larger than the number of variables being considered in a study. Meanwhile, Gay & Diehl, 1992 recommended that the sample size should be large enough to capture all the characteristics of the population under the study. Large enough is however a subjective decision that required analysis of the other factors such as the ease of obtaining or accessing the required sample size and the resources that is available to carry out the research. Sometimes these decisions involves trade-offs involving benefits against the associated costs.

Based on the above considerations, and the fact that there were limited financial resources as summarized in Appendix I and time constraints, the study sample size was therefore estimated at 210 banks customers selected from the representative sample of eight (8) commercial banks. Given the seven variables for the study, the estimated sample size was therefore 30 times larger than the number of variables as compared to the minimum of 10 times larger than the variables as was recommended by Roscoe rule of thumb. The sample size was therefore considered sufficient for the study.

### **3.5 Sampling Design**

In selecting the subjects for the study, the first step was the use of a simple random sampling to select the eight (8) commercial banks whose customers were then targeted for the interviews from the complete list of the fifteen (15) commercial banks that were operating in Uganda by then.

The second step was for the researcher and the research assistants to approach the selected commercial banks' customers as they went to carry out their banking transactions at the banks or bank branches in Kampala and requested them individually to participate in the survey. The customers who agreed to participate were then issued with the questionnaire either for immediately completion or were collected later from the respondents from an agreed venue or location. This was done until the sample size of 210 respondents was attained.

Out of the 210 questionnaires that were issued out to the customers of the randomly selected eight commercial bank customers who were contacted and were willing to participate in the survey, 178 were completed and returned by the respondents or collected by the researcher or the research assistants. The response therefore gave a good response rate of about 85% and an acceptable non-response rate of only 15%.

### **3.6 Data Source**

#### **▪ Primary Data**

The Primary data was obtained from the responses in the questionnaires that were distributed to the willing customers of the commercial banks that were sampled for the study.

#### **▪ Secondary Data**

The secondary data used were obtained from various available sources and literature reviewed that included the following; reports of banks, academic reports, journals, paper presentations and the print and electronic media (newspapers, radios, televisions and internet websites).



### **3.7 Data Collection Instruments**

The questionnaires (Appendix III) were used to collect the primary data. All the questions had pre-coded responses, based on a 5-point Likert-scale with options; Strongly Disagree, Agree, Not Sure, Agree and Strongly Agree, from which the respondents were to select the appropriate responses to the questions.

### **3.8 Procedure**

An introductory letter from Makerere University Business School (MUBS) was obtained to formalize the research. The questionnaire used to obtain the primary data had a brief introduction that stated the purpose of the research as being an academic study on “Perceived Ease of use, Usefulness, Trust, Information Accessibility and Acceptance of Electronic Funds Transfer [EFT]”. Assurance was also given to the respondents that data obtained for the research would be for academic purposes only and would be treated with utmost confidentiality.

The researcher and the research assistants distributed the questionnaires to customers of the eight commercial banks who were willing to spare time to complete them. The completed copies in some cases were then collected from the respondents over a period of up to one month. The period of up to a month for the collection of the completed questionnaires was intended to give respondents some flexibility by; making the exercise rather user friendly, giving more time to respondents to understand the questions so as to be able to respond appropriately, avoiding unnecessary interference with respondents respective busy schedules of work and facilitating the researcher to obtain a higher response rate.

### **3.9 Measurements of Variables**

The variables measured were the bank customers' perceived ease of use of the EFT system, perceived usefulness of the EFT system, perceived trust in the EFT system, availability or access to information about the EFT system, attitude towards using the EFT system, behavioural intention to use EFT and acceptance of electronic funds transfer (EFT) system.

The items used for measuring the variables were developed from those used in similar studies. The wordings of the questions were however adjusted or modified to fit the context of the study on acceptance of the EFT system. The response options for the items for the measurement of the variables were anchored on a 5-point Likert-scale that included the following response options; strongly disagree, disagree, not sure, agree and strongly agree.

The developed instrument was then pre-tested using a pilot study based on twenty randomly selected respondents. The purpose of the pre-test was to help in identifying any defects that might have existed in the items used in measuring the various variables used in the survey. The results of the pre-test indicated that the instrument had no outstanding defects.

- ***Perceived ease of use of the EFT system***

The items for measuring perceived ease of use of the EFT system were developed based on those used by earlier researchers on acceptance of information systems

such as those of Siu-cheung & Ming-te, 2004; Suh & Han, 2002; Tero, Pikkarainen, Karjaluoto & Seppo, 2004.

The independent variable of perceived ease of use of the electronic funds transfer system was measured by asking questions on the various dimensions of the system that included the following aspects; the ease of learning how to utilize the system, the ease of using the system to make a payment, the ease in remembering how to use the system, the clarity to interact and understand the system's procedures and the ease of using the system for making and receiving payments.

- ***Perceived usefulness of the EFT system***

The items for measuring banks customers' perceived usefulness of the electronic funds transfer system were developed based on earlier ones that had been used by other researchers on acceptance of information systems such as Suh & Han, 2002; Siu-cheung & Ming-te, 2004; Tero, Pikkarainen, Karjaluoto & Seppo, 2004).

The independent variable of perceived usefulness of the EFT system was measured by asking questions that covered the following aspects of the electronic funds transfer (EFT) system; the enhancement of productivity of the payment activities, its critical role in supporting payment activities, its ability to make it easier to carry out payment activities, its ability to enable accomplishment of payment activities quickly, its ability to improve the performance of payment activities and its usefulness in executing payment activities.

- ***Perceived trust in the EFT system***

Like the other variables, the items for measuring banks customers' perceived trust in the EFT system were developed based on those used by Suh & Han, 2002, when they carried out a study on the effect of trust on customer acceptance on internet banking. The independent variable of perceived trust in the EFT system was measured by asking respondents to state their responses in respects of the system's capabilities; its trustworthiness, its benefits, the fulfillment of its purpose, the fulfillment of banks customers' interests, and the fulfillment of the payment activities without being monitored and its being a system that is trusted.

- ***Access to information (availability of information) on the EFT system***

The items for measuring banks customers' perceived trust in the EFT system were also developed based on Tero *et al.*, 2004, study of Consumer acceptance of online banking. The independent variable was measured by asking questions that covered the following dimensions of the electronic funds transfer (EFT) system's information flow; banks provision and sharing of information on the system, banks provision of feedback to customers, customers' receipt of enough information about the benefits of using the system and the customers' sources of information about the EFT system (Appendix III - Questionnaire, Section D).

- ***Attitude towards using the EFT system***

The items for measuring banks customers' attitude towards using the EFT system were likewise developed from earlier instruments used by researchers like; Suh & Han, 2002; Siu-cheung & Ming-te, 2004.

The attitude of bank customers towards using the electronic funds transfer system was measured based on respondents' responses on the following questions on the electronic funds transfer system; encouragement of personal development, providing a chance for personal growth, accomplishment of multiple tasks, popularity among users, customers knowledge and clarity of system policies, and customers satisfaction with the system performance.

- ***Behavioural intention to use EFT system***

The items for measuring banks customers' behavioural intention to use the EFT system were also based on other studies; Malhotra & Galletta, 1999; Suh & Han, 2002; Siu-cheung & Ming-te, 2004. The banks customers' intention to use the EFT system was measured by obtaining respondents responses on the following system's dimensions; the knowledge on using the system, the ease of using the system, the frequency in using the system, the intention to continue using the system, the expectation to continue using the system and strongly recommending the system to others.

- ***Acceptance of EFT***

The items for measuring acceptance of the EFT system were also based on the aspects of the actual usage of the system as was in the case of the other studies such as those of Malhotra & Galletta, 1999; Suh & Han, 2002. The items used for measurement of acceptance of electronic funds transfer system were based on respondents' self-reported actual usage dimensions such as; how easy they find the system user friendly, their willingness to promote the system's use by telling others

about it and the frequency of usage of the system (Appendix III - Questionnaire, Section G).

### 3.10 Reliability Analysis

Reliability analysis of the scales used in the research instrument was carried out by performing Cronbach's alpha test to obtain assurance that the scales used was reliable and would produce good results. Table 3.1 below indicates the results of the test. The detailed analysis is in Appendix IV.

**Table 3.1:** *Cronbach-alpha Coefficients*

Variable	Cronbach Alpha Value
Perceived Usefulness of Electronic Funds Transfer	.8056
Perceived Ease of Use of Electronic Funds Transfer	.7979
Perceived Trust In Electronic Funds Transfer	.8210
Information on Electronic Funds Transfers.	.7455
Attitude Towards Electronic Funds Transfer	.5451
Behavioural Intention To Use Electronic Funds Transfer	.7989
Acceptance of Electronic Funds Transfer	.7505

Different researchers had recommended different lower limits for the Cronbach - alpha values, such as Peterson, 1994, and Sabit, 2002, who recommended 0.7 and 0.5 respectively. The result of the reliability tests indicated that all the constructs used in the study exceeded Sabit's limit of 0.5 point, while six exceeded that of Peterson's limit of 0.7 point. The scales used in the study were therefore deemed to be reliable and demonstrated high internal consistency.

### **3.11 Data Presentation and Analysis**

After data was collected, it was, compiled, sorted, edited and entered into the Statistical Package for Social Scientist (SPSS) computer application. Before the collected data was entered in the data view, the variables were first defined and coded in the variable view. The data was then captured from each of the individual questionnaire collected from the respondents until all were entered. On completion of the above exercises on the computer, the data was consequently analyzed so as to generate both the descriptive and the inferential statistics.

The purpose of the descriptive statistics was to obtain information on demographic characteristics of the population from the sample using cross tabulations, pie charts and graphs. Meanwhile the purposes of the inferential statistics were to establish the nature and the degree of relationships between the variables and also to be able to predict the explained variance in the dependent variable using correlations, multiple regression and analysis of variance.

### **3.12 Limitations and Problems Encountered**

Though this study was undertaken as a contribution to the understanding of factors that affect acceptance of electronic funds transfer systems in Uganda, the researcher encountered some problems and limitations while carrying out the work as indicated below:

- (i) Due to limited financial resources as summarized in Appendix I – The Expenditure, a limited study was carried out only in Kampala instead of an

extensive one covering other addition areas in the country where banking services are available, which would have given a better representation.

- (ii) The research was carried out within a limited time frame that could not allow for an extensive work into the subject matter as indicated on Appendix II - Time Framework/Work Plan.
- (iii) The sampling technique used to select only customers of the sampled banks that were willing to participate in the survey could limit the ability to generalize the findings to the overall population.
- (iv) The delays by respondents to fill and return the questionnaires and non-response from some respondents delayed the production of the research report though efforts were made to encourage respondents to respond on time by constant reminders and collecting the questionnaires from them.



## **CHAPTER FOUR**

### **RESULTS AND FINDINGS OF THE SURVEY**

#### **4.1 Introduction**

This chapter comprises of a presentation of results and their interpretations as tested according to the objectives of the study. It begins with the descriptive statistics that examines the sample characteristics using cross tabulations, pie charts and graphs. It is then followed by the inferential statistics using correlation analysis to establish the relationships between the study variables, the regression analysis and finally other finding based on analysis of variance.

#### **4.2 Descriptive Statistics**

The descriptive statistics that indicates the established sample characteristics are described below starting with the representation of the number of customers for each of the eight banks that were selected in the survey. It is then followed by those from the analysis of the age groups of the respondents by account held in the banks, the educational level of respondents by gender and concluded with that of the favorite modes of making payments for different transaction types.

##### **4.2.1 Respondents by Banks**

In the analysis of respondents by banks, respondents were grouped according to their respective banks where they operated accounts. A cross tabulation and a pie chart was used to establish the links between the respondents and their respective the commercial banks. The results indicated the number of customers interviewed from each of the

eight sampled commercial banks and their respective representative percentages as shown on Table 4.1 below.

**Table 4.1: Respondents by Banks**

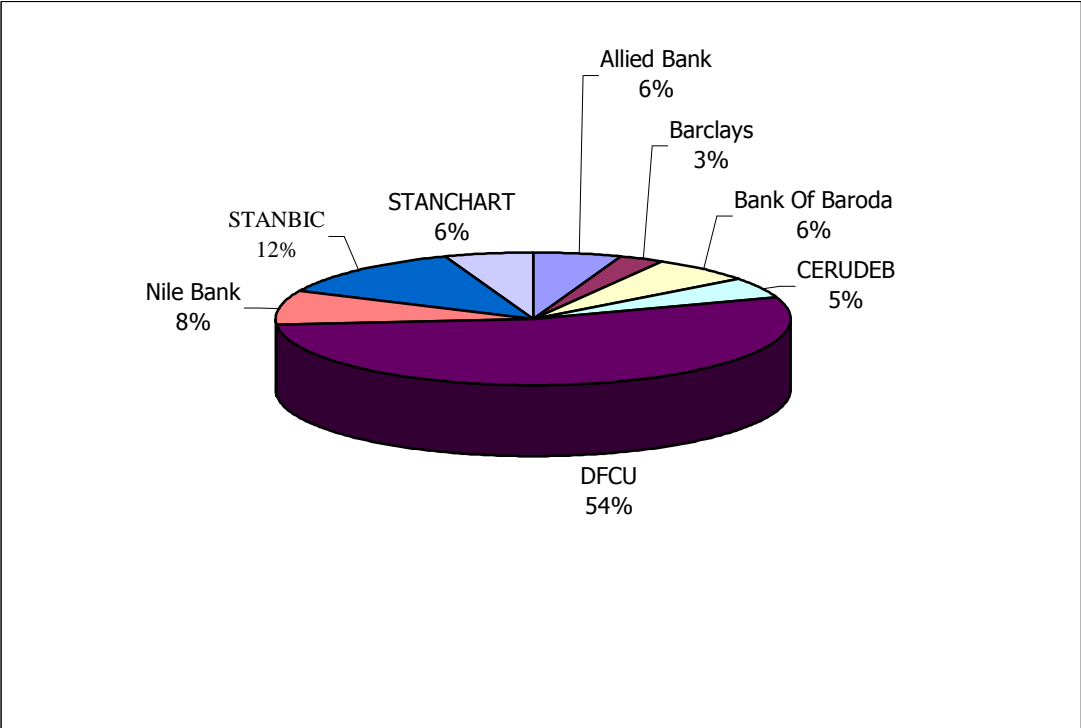
		Frequency	Valid Percent	Cumulative Percent
<b>Valid</b>	Allied Bank	10	5.6	5.6
	Barclays Bank	5	2.8	8.4
	Bank Of Baroda	11	6.2	14.6
	Centenary Rural Dev Bank	9	5.1	19.7
	DFCU Bank	96	53.9	73.6
	Nile Bank	15	8.4	82.0
	Stanbic Bank	22	12.4	94.4
	Standard chartered Bank	10	5.6	100.0
	<b>Total</b>	178	100.0	

From Table 4.1 above, it can be seen that most of the respondents were from DFCU Bank that constituted 96 respondents representing about 54% of the total respondents. The second highest number of respondents was 22 and these were from Stanbic Bank, representing about 12% of the total respondents. Respondents from the Nile Bank customers were 15 representing about 8% of the total respondents. On the other hand, the lowest number of the respondents was 5 from Barclays Bank, which was about 3%

of the total respondents. Centenary Rural Development Bank customers that participated in the survey were 9, which was about 6% of the total respondents. Both Bank of Africa formally Allied Bank International and Standard Chartered Bank customers interviewed were 10 each and contributing about 6% each to the total of the respondents. It should however be noted that the selection of the numbers of customers for each of the banks that were sampled for the survey did not in any way reflect anything to do with the market share of the banks; it was rather random.

Similarly Figure 4.1 below is a pie chart that provides a visual representation of the composition of respondents according to the various banks that were selected to constitute the sample for the survey.

**Figure 4.1: Pie Chart for Respondents by Banks**



#### 4.2.2 Age Group by Account Held in the Banks

Cross tabulation was used to establish the link between age groups and account types held by customers of the commercial. The results were as indicated on table 4.2 below.

**Table 4.2: Age Group by Account Held**

			Account Held				Total
			Current	Savings	Foreign Currency	Fixed Deposit	
Age Group	18-30 yrs	Count	31	44			75
		Row %	41.3	58.7			100.0
		Column %	46.3	44.0			42.1
	31-40 yrs	Count	17	45	1		63
		Row %	27.0	71.4	1.6%		100.0
		Column %	25.4	45.0	50.0%		35.4
	41-50 yrs	Count	16	8		7	31
		Row %	51.6	25.8		22.6	100.0
		Column %	23.9	8.0		77.8	17.4
	Over 50 yrs	Count	3	3	1	2	9
		Row %	33.3	33.3	11.1	22.2	100.0
		Column %	4.5	3.0	50.0	22.2	5.1
Total	Count	67	100	2	9	178	
	Row %	37.6	56.2	1.1	5.1	100.0	
	Column %	100.0	100.0	100.0	100.0	100.0	
			$X^2 = 52.795$	df= 9	Sig. = .000		

The results indicated that most of the commercial banks' customers fall within the 18-30 year age group, which constituted 75 respondents out of the 178 respondents, and representing about 42% of the total respondents. The majority of these were holders of the savings accounts (59%), while the others in the group were holders of current accounts (41%). The second largest group of bank customers that participated in the survey was 63 respondents in the 31-40 year age group. These represented about 35% of the total respondents of whom the majority were too holders of the savings accounts and constituting 71%, while 27% were holders of current accounts and 2% holders of foreign currency accounts.

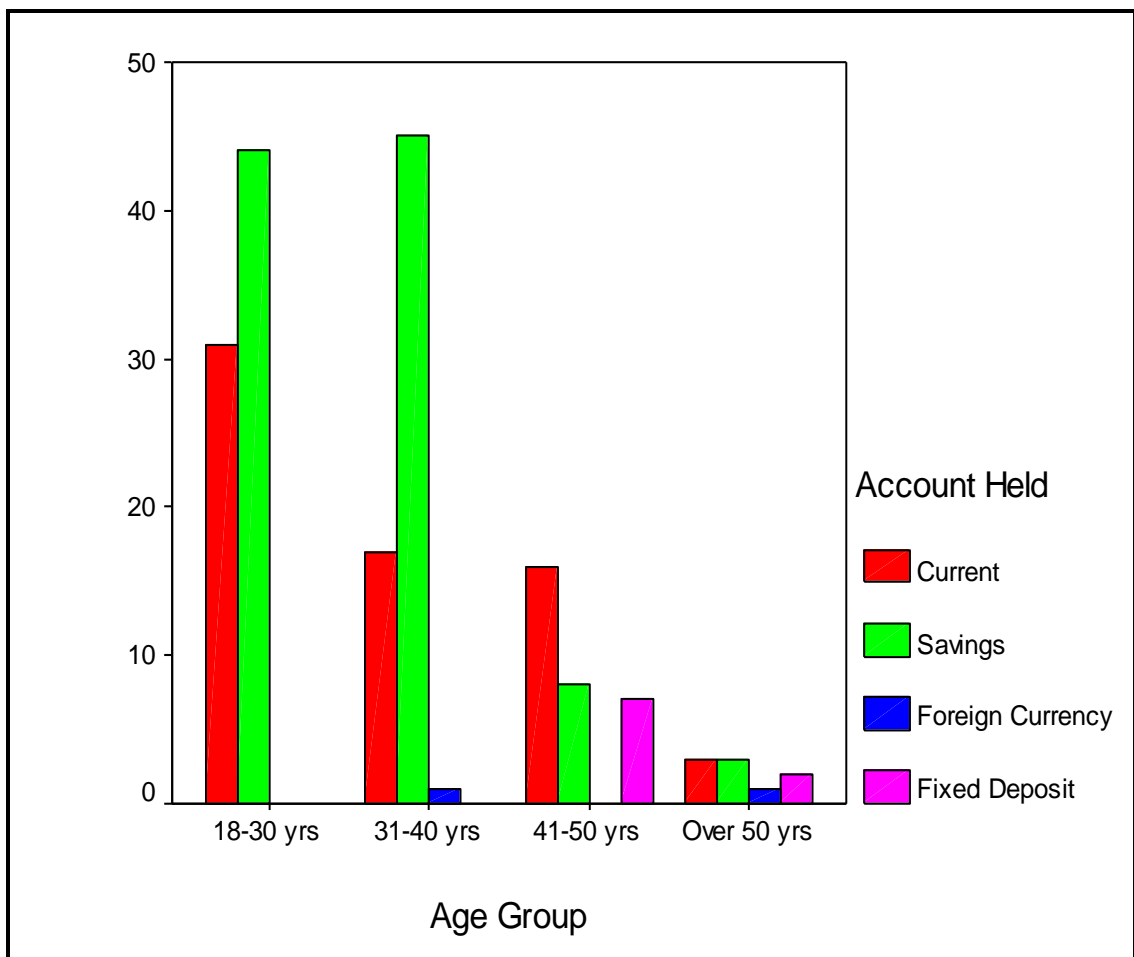
The respondents in the 41-50 year age bracket were 31 and represented 17% of the total respondents and within which 52% were holders of current accounts, 26% were holders of savings accounts and 23% were holders of fixed deposit accounts. The over 50 years old age group featured least in the survey with 9 respondents, representing only 5% of the total respondents in the survey. Within this age group the saving accounts holders and the current accounts holders were 33% each, while 22% and 11% of them had fixed deposit accounts and foreign currency accounts respectively. Furthermore, an association was observed between one's age group and the nature of account hold with a bank ( $X^2 = 52.795$ , sig. = .000).

The table above also indicated that the highest number of accounts held by bank customers was saving account with a count of 100; representing 56% of the total respondents. Customers operating current accounts were 67; representing about 38% of the total respondents. Bank customers holding fixed deposit accounts and foreign

currency accounts were 9 and 2; representing 5% and 1% of the total respondents respectively.

The age groups by types of accounts held in the bank were further illustrated using a clustered bar graph as presented on Figure 4.2 below.

**Figure 4.2:** *Age group by nature of account held in the bank*



### 4.2.3 Education Level by Gender of the Respondents

Cross tabulation was again used to present a distribution of education level of the respondents by gender. The results are indicated on table 4.3 below.

**Table 4.3: Education Level by Gender**

			Gender		Total
			Male	Female	
Education Level	O-Level	Count	2	3	5
		Row %	40.0	60.0	100.0
		Column %	1.8	4.5	2.8
	A-Level	Count	3	4	7
		Row %	42.9	57.1	100.0
		Column %	2.7	6.0	3.9
	Diploma	Count	12	15	27
		Row %	44.4	55.6	100.0
		Column %	10.8	22.4	15.2
	Degree	Count	70	26	96
		Row %	72.9	27.1	100.0
		Column %	63.1	38.8	53.9
	Post Graduate	Count	21	16	37
		Row %	56.8	43.2	100.0
		Column %	18.9	23.9	20.8
	Others	Count	3	3	6
		Row %	50.0	50.0	100.0
		Column %	2.7	4.5	3.4
Total	Count	111	67	178	
	Row %	62.4	37.6	100.0	
	Column %	100.0	100.0	100.0	
			$X^2 = 11.335$	df = 5	Sig. = .045

Table 4.3 shows that the majority of the respondents (96) had degrees, which is about 54% of the total respondents dominated by male at 73%, while the female were only 27%. The total postgraduate respondents were 37; representing 21% of which 57% were male and 43% were female. The diploma holders were 27 (15%) out of which the majority were female (56%) and the male were 44%.

Seven of the respondents that represented 4% of the total respondents had their highest qualification as Advanced-level certificate, and of these 57% and 43% were female and male respectively. A count of 5 respondents that represented 2.8% of the total respondents had Ordinary-level as their highest qualification, and 60% of these were female and the male were 40%. Respondents with other qualifications were 6 representing 3% of the total respondents; within which both male and female fared equally at 50% each.

Overall, out of the 178 respondents, 111 were male representing 62% and the female were 67 representing 38%. It should be noted that the male and female had their highest percentage of respondents as degree holders at 63% and 39% respectively. It should also be noted that for both gender categories, the females had their least percentage of respondents as holders of Ordinary-level certificates and other qualifications each of which comprising only 4.5% of the females. On the other hand the least percentage for male was also holders of Ordinary-level certificates that registered only 1.8% of the male respondents.



It was also established from the cross tabulation results above that there is a significant association between one's gender and the highest level of education ( $X^2 = 11.335$ , Sig. =.045).

**Figure 4.3: Education Level by Gender of the respondents**

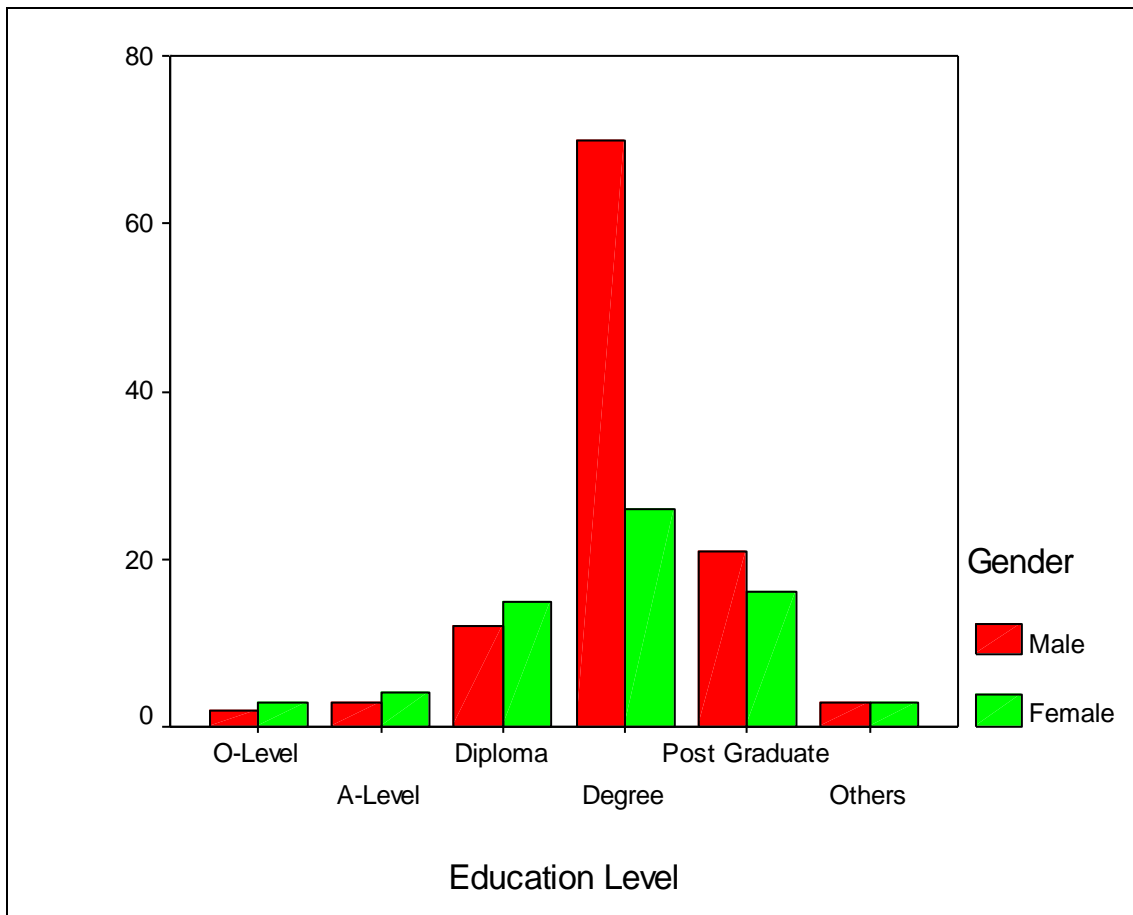


Figure 4.3 above also provides a visual graphical illustration of the gender and educational level results.

#### 4.2.4 Favourite Payment Modes and Payment Transactions

Respondents were asked to rank their favourite mode of conducting their payment transactions based on whether the transactions were of either low values or of high values. The modes of conducting the payment transactions included means such as Cash, Cheques, EFT, RTGS and others, which are considered to be the current available means of making and receiving payments in the country. The findings were as shown summarized in Table 4.4 below.

**Table 4.4:** *Favourite payment modes*

	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Deviation</b>
Favourite payment mode for Low Value Transactions	1	4	1.31	.657
Favourite payment mode for High Value Transactions	1	5	1.85	.684

The results indicated that banks customers on average prefer to use cash (Mean = 1.31), for low value transactions that could include payments for expenses such as; school fees, utility bills (for water, electricity and telephone), and remunerations (for salaries, wages and allowances) to employees.

On the other hand the results showed that bank customers on average, prefer to use cheques (Mean =1.85) for high value transactions that could include the payments for the purchases of high value assets such as motor vehicles, houses and investments in shares, treasury bills and treasury bonds. The result could be expected in light of the

fact that high risks are associated with the handling of high volumes/values of cash leading to the preference of a non-cash mode such as the cheque.

It should, however, be noted that there is no strict values that may be considered to constitute either a low or a high transaction value. It is indeed, depended on the subjective decision of the parties involved in a particular payment transaction, and based on their financial positions.

### **4.3 Inferential Statistics**

To obtain inferential statistics for the study on acceptance of EFT system in Uganda, the following statistical tools were used; the correlation analysis, the multiple regression analysis and the analysis of variance.

#### **4.3.1 Correlation Analysis**

The Pearson correlation coefficient ( $r$ ) was employed to establish the relationship that exists between the study variables; Perceived Usefulness of EFT system, Perceived Ease of Use of EFT system, Perceived Trust in EFT system, Availability of Information on EFT system, Attitudes towards using EFT system, Intention to use EFT system and Acceptance of the EFT system. The results obtained are as indicated on Table 4.5 below.

**Table 4.5: Correlations**

Correlations							
	1	2	3	4	5	6	7
<b>Perceived Usefulness (1)</b>	1.000						
<b>Perceived Ease of Use (2)</b>	.250**	1.000					
<b>Perceived Trust (3)</b>	.256**	.245**	1.000				
<b>EFT Information (4)</b>	.347**	.240**	.268**	1.000			
<b>Attitudes (5)</b>	.252**	.160*	.267**	.235**	1.000		
<b>Intention To use (6)</b>	.218**	.446**	.344**	.222**	.271**	1.000	
<b>Acceptance (7)</b>	.209**	.248**	.358**	.259**	.561**	.398**	1.000
** Correlation is significant at the 0.01 level (2-tailed).							
* Correlation is significant at the 0.05 level (2-tailed).							

#### 4.3.2 Perceived Usefulness, Attitudes and Intention to use EFT

The Pearson correlation results revealed that there is a significant positive relationship between banks customers' Perceived usefulness of the EFT system and their Attitudes towards using the system ( $r = .252^{**}$ ,  $p < .01$ ). Bank customers' Perceived Usefulness of the EFT system was also observed to be significantly and positively related to their Intentions to use the system ( $r = .218^{**}$ ,  $p < .01$ ). On the other hand, even the Attitudes that the clients have towards using EFT system were also significantly and positively related to their Intentions to use the system to make financial payments to others ( $r = .271^{**}$ ,  $p < .01$ ).

The above result implies that when there is a better public perception about the usefulness of the EFT system, it would result into the public having a higher attitude towards the use of the system in executing their payment obligations. Furthermore, a

better public perception about the usefulness of the EFT system would also mean that their intention to use the system would be more just like their positive attitude towards using it would have a positive effect on their intention to use the system.

#### **4.3.3 Perceived Ease of Use, Attitude and Intention to use EFT**

The Pearson correlation results also revealed that the bank customers' perceived ease of use of the Electronic Funds Transfer (EFT) system is significantly and positively related to their attitudes towards using the system ( $r = .160^*$ ,  $p < .05$ ). Likewise, bank customers' perceptions about the ease of using the EFT system is significant and positively related to their intentions to use the system ( $r = .446^{**}$ ,  $p < .01$ ). The results signify that the more the public perceive EFT system to be easy to use, then the more would be their attitude towards using it and the more would be their intention to use the electronic funds transfer system to fulfill their payment obligations as and when they arise.

#### **4.3.4 Perceived Trust, Attitude and Intention to use EFT**

Perceived Trust of the customers of banks regarding the EFT system as per Pearson correlation results was observed to be significantly and positively related to their attitudes concerning the use of the EFT system ( $r = .267^{**}$ ,  $p < .01$ ). Similarly their perceived trust on the system was also significantly positively related to their intention to use the EFT system ( $r = .344^{**}$ ,  $p < .01$ ). The interpretation of the above results is that the more the public trust the EFT system to be free from risks, the more would be their attitude towards using the system. Such risks would arise from the misuse of the banking information supplied by customers to the banks to facilitate the processing of the electronic funds transfer transactions. Likewise, the more bank customers have trust in the EFT system, the more would be their intention to use the system to effect

various financial payments, because of the confidence they would be having in the ability of the system to fulfill their expectations with limited or no risks.

#### **4.3.5 Information Accessibility, Attitude and Intention to use EFT**

The Availability or Access to Information about the EFT System by the bank customers as per Pearson correlation results shown on table 4.5 above was found to be significant and positively related to the customers' Attitudes concerning the use of the EFT system to make payments ( $r = .235^{**}$ ,  $p < .01$ ). Similarly the results showed that availability of information on the EFT system to the bank customers is significantly and positively related to their Intention to use the system ( $r = .222^{**}$ ,  $p < .01$ ). The interpretation of the above results is that as the public access more information about the uses, benefits and availability of the EFT system services at the banks, then the more would be their attitudes towards using it and likewise the more would be their intention to use the system.

#### **4.3.6 Intention to use EFT and the Acceptance of EFT**

From the Pearson correlation results, the outcome was that there is a significant and a positive relationship between bank customers intention to use the EFT system and their acceptance to use the EFT system ( $r = .398^{**}$ ,  $p < .01$ ). The interpretation of the above result is that as the bank customers' intentions to use the EFT system grow higher, the more they would begin to use the system, which eventually would leads to an increase in the acceptance of the system among the bank customers and eventually to the general public.

#### 4.3.7 The Multiple Regression Analysis

The multiple regression analysis was used to determine the extent to which the predictors that comprised of; Perceived Usefulness of the EFT, Perceived Trust, Availability of Information, Attitudes towards using and Intention to use the EFT system could explain the Acceptance of Electronic Funds Transfer (EFT) system in Uganda. The findings were as indicated in Table 4.6 below.

**Table 4.6: Regression Model**

Coefficients (a)		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Dependent Variable: Acceptance	
Model		B	Std. Error	Beta				
	(Constant)	1.264	.227		5.573	.000	R Square	.417
	Perceived Usefulness	1.549E-02	.034	.031	.453	.651	Adjusted R Square	.394
	Perceived Ease of Use	1.901E-02	.025	.054	.759	.449	F Change	18.120
	Perceived Trust	8.320E-02	.034	.168	2.435	.016	Sig. F Change	.000
	EFT Information	1.493E-02	.032	.033	.472	.638		
	Attitudes	.423	.061	.468	6.957	.000		
	Intention to Use	.129	.053	.182	2.457	.015		

Compared with prior studies, the regression analysis results of this study suggest that the model used in this study has the ability to predict and explain the behavioural intention of users to use the EFT system. The variance in intention explained (R Square) was found to be about 42%; which is not far from those established in the

studies by Chau and Hu (2001), Chau and Hu (2002) and Mathieson *et al.* (2001) which stood at 42%, 43%, and 43.8%, respectively.

The regression analysis results also indicated that the predictors could explain up to 39.4% (Adjusted R Square = .394) of the overall Acceptance of the EFT system. Among the predictors, the most powerful at explaining the Acceptance of the EFT system were the Attitudes towards the use of the EFT system by the customers of the banks (Beta = .468, sig. = .000). The adjusted R square of .394 means that for every 1,000 customers of the banking institutions who will wholly embrace the Electronic Funds Transfer System, 394 of these customers will do so only as a result of the efforts of the banks that are aimed towards enhancing the perceptions of the bank customers regarding the predictors i.e. the Perceived Usefulness of EFT system, the Perceived Ease of Use of the EFT system, the Perceived Trust in the EFT system, the Accessibility of Information on EFT system, the Attitudes towards using EFT system, and the Intention to use the EFT system. Overall, the result of the regression model was found to be significant (Sig. F Change = .000).

#### **4.3.8 ANOVA Tests**

Analysis of Variance (ANOVA) was further used to determine whether there existed significant differences in the age group by variable and the nature of account held by bank customers. The outcomes of the ANOVA tests are indicated and explained below.



**Table 4.7: Age group by Variable**

		N	Mean	Std. Deviation	F	Sig.
Perceived Usefulness	18-30 yrs	73	3.9178	.87803	1.523	.210
	31-40 yrs	60	3.9167	.76561		
	41-50 yrs	31	4.0968	.53882		
	Over 50 yrs	9	3.4444	1.23603		
Perceived Ease of Use	18-30 yrs	70	3.2143	1.22643	.668	.573
	31-40 yrs	61	3.3279	1.12133		
	41-50 yrs	31	3.1613	.93441		
	Over 50 yrs	9	2.7778	1.09291		
Perceived Trust	18-30 yrs	72	3.7361	.88800	1.268	.287
	31-40 yrs	61	3.8852	.87747		
	41-50 yrs	31	3.7097	.58842		
	Over 50 yrs	9	3.3333	1.00000		
EFT Information	18-30 yrs	71	3.4930	.96914	2.801	.042
	31-40 yrs	61	3.5246	.82879		
	41-50 yrs	31	3.2903	.82436		
	Over 50 yrs	9	2.6667	.86603		
Attitudes	18-30 yrs	71	3.4103	.39633	1.769	.155
	31-40 yrs	61	3.5506	.40850		
	41-50 yrs	31	3.5261	.44801		
	Over 50 yrs	9	3.2986	.77861		
Intention To use	18-30 yrs	71	3.2775	.56819	3.747	.012
	31-40 yrs	61	3.3155	.54907		
	41-50 yrs	31	3.0099	.51596		
	Over 50 yrs	9	2.8449	.55925		
Acceptance	18-30 yrs	71	3.4392	.39183	2.284	.081
	31-40 yrs	60	3.5951	.41494		
	41-50 yrs	31	3.5622	.31277		
	Over 50 yrs	9	3.3624	.53103		

### **Age group by Variable**

Analysis of Variance (ANOVA) ranked the various age groups on the study constructs. The results were as indicated on Table 4.7 above. The results indicated that there were only significant differences across the age groups on the independent variables of customers' Accessibility of Information on the EFT system and their Intention to use the EFT system ( $p < .01$ ). On Accessibility of Information on EFT system, the 31-40 year age group (Mean = 3.5246), fared better than any other age group for instance the 18-30 years age group (Mean = 3.4930), the 41-50 years age group (Mean = 3.2903) and the over 50 year of age category (Mean = 2.6667).

In the same way, the customers' Intention to use EFT system results indicated also that the younger 31-40 year age group (Mean = 3.3155) ranks better than any other age group. The results showed that the mean for the other age groups were as follows; 18-30 year age group (Mean = 3.2775), the 41-50 year age group (Mean = 3.0099), and the over 50 year age group (Mean = 2.8449).

### **Nature of Account held by Bank Customers**

Analysis of Variance (ANOVA) was also used to rank the nature of account held by the customers of the banks. The results were as indicated on table 4.8 below. The results revealed that there were significant differences on customers' Perceived Usefulness of the system (sig. = .008). On this important variable that directly affect the acceptance of the EFT system, fixed deposit account holders were observed to have higher expectations on the usefulness of the EFT system (Mean = 4.5556) than the other types of account holders; current account holders (Mean = 3.9231), savings account holders (Mean = 3.8969) and foreign currency account holders (Mean = 2.5000).

**Table 4.8: Nature of Account held by Bank Customers**

		N	Mean	Std. Deviation	F	Sig.
<b>Perceived Usefulness</b>	<b>Current</b>	65	3.9231	.94054	4.089	.008
	<b>Savings</b>	97	3.8969	.69947		
	<b>Foreign Currency</b>	2	2.5000	.70711		
	<b>Fixed Deposit</b>	9	4.5556	.52705		
<b>Perceived Ease of Use</b>	<b>Current</b>	66	3.0909	1.18617	.551	.648
	<b>Savings</b>	94	3.2872	1.10349		
	<b>Foreign Currency</b>	2	3.5000	2.12132		
	<b>Fixed Deposit</b>	9	3.4444	.88192		
<b>Perceived Trust</b>	<b>Current</b>	66	3.7727	.87346	.594	.620
	<b>Savings</b>	96	3.7813	.84857		
	<b>Foreign Currency</b>	2	3.0000	1.41421		
	<b>Fixed Deposit</b>	9	3.6667	.50000		
<b>EFT Information</b>	<b>Current</b>	66	3.5758	.94561	1.144	.333
	<b>Savings</b>	95	3.3474	.89643		
	<b>Foreign Currency</b>	2	3.0000	.00000		
	<b>Fixed Deposit</b>	9	3.2222	.66667		
<b>Attitudes</b>	<b>Current</b>	64	3.4428	.40434	1.252	.293
	<b>Savings</b>	97	3.4794	.43913		
	<b>Foreign Currency</b>	2	3.2188	.30936		
	<b>Fixed Deposit</b>	9	3.7153	.63823		
<b>Intention To use</b>	<b>Current</b>	65	3.2057	.57981	.431	.731
	<b>Savings</b>	96	3.2365	.55258		
	<b>Foreign Currency</b>	2	3.5357	.85863		
	<b>Fixed Deposit</b>	9	3.0794	.60445		
<b>Acceptance</b>	<b>Current</b>	65	3.5316	.39257	2.147	.096
	<b>Savings</b>	95	3.4725	.41122		
	<b>Foreign Currency</b>	2	4.0690	.00337		
	<b>Fixed Deposit</b>	9	3.6667	.22361		

The results in Table 4.8 above, however, indicated that there were no significant differences on the other variables used in the survey such as customer' Perceived Ease of Use of EFT system (Sig. = .648), customers' Perceived Trust in the EFT system (Sig. = .620), Accessibility of Information on EFT system by customers (Sig. = .333), customers' Attitudes towards using the EFT system (Sig. = .293), and their Intention to use the Electronic Funds Transfer System (Sig. = .731).

## CHAPTER FIVE

### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the discussion of the findings, the derived conclusions and finally the recommendations for future research. The discussion of the research findings relates to the study variables and the stated objectives of the study. It then examines briefly some of the observed sample characteristics/descriptive statistics. It is then followed by the conclusion to the study, recommendations and suggestions for further research on acceptance of electronic funds transfer system in Uganda.

The results have to a greater extent confirmed several earlier findings regarding the positive relationships that were confirmed to exist between users' perceptions of a system and their attitudes towards it, which consequently affect their intentions to use the system and ultimately influence either their use/acceptance or non usage of the system.

#### 5.2 Perceived Usefulness, Attitude and Intention to use EFT

The correlation result of the study revealed that there is a significant positive relationship between perceived usefulness of EFT system and attitude towards the use the system. The outcome of this test is consistent with a number of earlier research findings such as those of Davis *et al.*, 1989; Agarwal & Prasad, 1999; Snoj *et al.*, 2004, which established the existence of a significant positive correlation between customers' perceived usefulness of an information system and their attitude towards the use of that system. When bank customers perceive that the EFT system is useful in fulfilling their

payment obligations, it would yield in them positive attitudes towards the system, which would result into them using the system to make payments such as school fees and utility bills such water, telephone and electricity.

The correlation result of this study also indicated a significant positive relationship between perceived usefulness and customers' intention to use electronic funds transfer system. This outcome too agrees with earlier findings such as those of Chau *et al*, 2002. It should however, be noted that in the Chau's research, the result indicated that perceived usefulness was a major determinant of behavioural intention to use an information system, but the result of this study indicated that perceived ease of use of the EFT system was the major determinant of customers' intention to use the system followed by their perceived trust in the system. The difference in the ranking could have been due to the fact that in the Chau's study, the trust factor was not included as one of the constructs. It should however be noted that the result of this study seems to suggest that, not many people have information on the use of EFT system such that their intention to use the system is based on just their perceptions of the system's ease of use rather than its usefulness which would have been more relevant in situations where the bank customers were well informed about the system.

Wang *et al*, 2003 result is also consistent with the outcome of this study because they also found out that users' perceived usefulness of a system affects the formation of their behavioural intention to use the system positively by improving their perception of the credibility of the system. The study results suggest that bank customers' intention to use EFT is positively affected by their perceptions about the usefulness of the system to facilitate payments and could be based on a number of considerations such the speed,

convenience, time saving and effectiveness. The speed is about the time it takes for the beneficiary customer of a payment instruction to realize value, which is three to four days for a cheque and a day or two for a credit EFT (credit transfer) or a debit EFT (direct debit) payment respectively from the date of presentation in the Automated Clearing House (ACH). An EFT payment is considered reliable in that it rarely bounces for trivial reasons that could arise in situations where a cheque is used to make a payment; such as amount in words and figures differ, irregular signature, incomplete or irregular endorsement, endorsement required and stale cheque. Less time is spent in executing an EFT payment such as for payment of school fees as opposed to lining up to deposit school fees using bank slips at the beginning of a term. The saved time could be used to execute other economic activities. Also in situations where the payer needs to make multiple payments such as salaries and allowances for employees, the use of EFT facilitates the convenient means for making such batch payments at once.

### **5.3 Perceived Ease of Use, Attitude and Intention to use EFT**

The result of the research indicated that there is a significant positive relationship that exists between banks customers' perceived ease of use of the EFT system and their attitude towards using the system. The relationship is also true between bank customers' perceived ease of use of the EFT system and their intention to use it. Some earlier studies however suggested that attitude has no sustained effect on individual behavioural intention and only partially mediated the belief-intention link with other external factors, which seems to be the reason as to why in some studies the construct of attitude was left out by researchers like Shengnan, 2003.

In studies like those of Khalifa *et al.*, 2000, where customers/users' attitude towards an information system was included, users perceived ease of use of the information system was found to be significant and positively related to their attitude towards the use of the system. The regression result of this study also shows that attitude is the most powerful variable in explaining the acceptance of the electronic funds transfer system.

Based on the reviewed literature, it can also be seen that the outcome of this study is in agreement with earlier research findings that provided evidence of significant effect of users perceived ease of use of a system on their intention to use the system (Davis *et al.*, 1989; Venkatesh & Davis, 2000; Agarwal & Prasad, 1999; Hu *et al.*, 1999; Venkatesh & Morris, 2000). The positive relationship between ease of use and intention to use a system confirms the argument advanced by Moon & Kim, 2001 that when a user finds a system easy to use, it would be less threatening to him hence his attitude towards the system and his intention to use the system would both improve as a result. Wang *et al.*, 2003, also indicated in their findings that users' perceived ease of use of a system has positive influence on their perceptions about the system which comes as a result of the credibility they derive from the interactions with that system.

Further analysis by some of the earlier researches indicated that; comparatively a user perceived ease of use of a system is the second most important determinant of his behavioural intention toward that system after his perceived usefulness of the system. As noted earlier, this research however ranks bank customers perceived ease of use of the EFT system as the major determinant of customers' intention to use the system followed by their perceived trust in the system, and finally their attitude towards using the EFT system.



The results that both the customers' perceived usefulness and ease of use affect positively their intention to use the system seems to support the observations attributed to some earlier researchers such as Cooper *et al.*,1994; Szajna,1996; Goldfard, 2001; Kolodinsky *et al.*, 2002, which indicated that in the pre-implementation stage of implementing an information technology system, users perceived ease of use of the system do not have a significant and direct effect on their behavioural intention to use the system, but affected their intention only through their perceived usefulness of the system. In the case of this study, the electronic fund transfer system was implemented in Uganda in 2003; about four years ago, meaning that it is beyond the pre-implementation stage, which explains why the two factors have direct influence on bank customers' intention to use it. The stronger effect of perceived ease of use as compared to perceived usefulness of the EFT system on intention to use the system seems to be for the reason that despite the EFT system being in existence for some time, not many bank customers have sufficient information on the functions of the system and its relative advantages as compared to the other payment modes such as cash and cheques that most people are used to and have been in existence for a long time.

#### **5.4 Perceived Trust, Attitude and Intention to Use EFT**

The correlation result of the study indicated that there is a significant positive relationship between bank customers' perceived trust in the EFT system and their attitude towards using electronic funds transfer (EFT) system. The result is similarly in agreement with results of studies carried out by researchers such as Chau *et al*, 2003; Jaivenpen *et al*, 2000, which showed that there is a significant positive relationship

between consumers' perceived trust in internet and the attitudes of consumers to adopt the system of buying products from the internet stores.

Gefen, 2000; Hart *et al*, 1997, also found out that customers' perceived trust in an information system was responsible for a reduction of their uncertainty about an information system, which would otherwise affect their behavioural intention to use a particular technology. Gefen, 2000 findings therefore is consistent with the outcome of this study which indicates that there is a significant positive relationship that exists between bank customers' perceived trust in the EFT system and their behavioural intention to use the EFT system. Furthermore the result of the study also agrees with Bomil *et al*, 2002, who considered consumers' perceived trust in a system as a separate construct from those of the original technology acceptance model.

The result of the study can be interpreted that when bank customers trust that the banks are reliable in fulfilling their promises to execute customers EFT payment instructions then they would have trust in the EFT system and therefore their attitude towards the use of the system would also be high. The customers' trust in the EFT system may be affected by a number of factors. Customers are concerned about the banks being honest in using the information they supply to them when requesting for electronic funds transfer transactions. Customers would also trust banks if the errors that might occur during the handling of EFT transactions are minimized or there are reliable procedures in place to resolve any problems that may occur during the processing of the electronic funds transfer instructions, without causing unnecessary delays and/or losses to customers. The level of trust bank customers have on the EFT system could also be

affected by the conduct of the bank employees who are expected to guide the customers whenever they require assistance in respect of the electronic funds transfer system.

### **5.5 Information Accessibility, Attitude and Intention to use EFT**

The correlation result indicated that accessibility of information on the EFT system by the banks customers is significant and positively related to their attitudes towards the use of the system. The result is likewise in agreement with those of the Malhotra & Galletta, 1999, who stated that the knowledge of the capabilities, advantages and disadvantages of an information system would yield internalization and identification that has a positive effect toward the system use. Access to information about the EFT system was also found to be significant and positively relate to banks customers' intention to use the EFT system.

The result of the study suggests that the banks customers' attitudes towards the use of the EFT system would increase if the banks provided adequate information about the uses of the EFT system and if prompt feedback are provided about the status of electronic funds transfer (EFT) transactions to the concerned bank customers. Such access to information about the EFT system would facilitate the customers' understanding of the system and also generate customers' confidence on the system that would go a long way to enhance the system's usage.

### **5.6 Intention to use EFT and Acceptance of EFT**

Just like in all the previous correlation results discussed above the study indicated that there is significant positive relationship between banks clients' intention to use EFT and their acceptance to use EFT system. The result of this study is consistent with those

from earlier ones used to explain the effect of users' intention to use a system on their acceptance to use that system.

The result of his study though revealed that there is a low correlation between banks customers' intention to use EFT and their acceptance to use EFT, compared to the correlation between banks customers trust and their acceptance to use EFT. This outcome is likely to be so because electronic funds transfer system is a new method of making payments that is not known to many bank customers or the customers are not aware of the associated benefits due to low public awareness campaign carried out in the mass media. This supports and confirms the explanation given by Taylor & Todd, 1995, that there existed differences between two types of users; such that behavioural intention predicted behaviour more strongly for experienced users than the inexperienced ones.

## **5.7 Conclusion**

The development and implementation of new banking products/services like electronic funds transfer system can enhance banks' efficiency in the provision of services to their customers, which could in the medium and long run attract existing and new customers to use these new and/or improved services/products. Usually when such products/services are implemented because they could involve huge capital investments, financial institutions are usually hopeful that such projects would be successful and that they would be able to generate adequate returns on such capital ventures/investments. It is therefore imperative that bank customers' acceptance of these new banking products/services is one of the key drivers on one hand determining

the success or failure of these systems and on the other hand an indicator of the rate of change that can occur in the financial sector in that given country.

Many empirical studies have indicated that Technology Acceptance Model (TAM) is a strong concept that have been used to explain users' acceptance of banking information system innovations though with some variation in the variables used based on the context of the banking system under study. The original Technology Acceptance Model (TAM) suggested that users' acceptance of an information technology is primarily based on the functions it is able to perform which could be indicated by the users' perception about the usefulness of the system and the ease or difficulty users experienced in utilizing or operating the system to perform those functions/roles for which they were designed for.

In addition to the original Technology Acceptance Model constructs of users Perceived Usefulness of a system and users Perceived Ease of Use of a system, the result of this study on EFT acceptance in Uganda has extended and confirmed that Perceived Trust on the electronic funds transfer system and Availability of Information about its functions and its relative advantages against other payment instruments. These two factors to some extent are also important in increasing the customers of banks acceptance of electronic funds transfer system that if accepted could be used by these customers to make and receive payment instructions through their respective bank accounts for various financial obligations at a faster speed if the banks were to abide the rules and regulations governing the processing of the EFT transactions.

Banks customers' perceptions about the electronic funds transfer system are found to influence their attitude towards its use. The more they perceive electronic funds transfer system to be more useful or that it is easy to use; in that they believe the system is capable of facilitating them without encountering unnecessary problems to make and receive payments the more their attitude would improve towards its use and that in turn would lead to an increase in the system's actual usage. Over time if this trend continues, it would result into many of these banks' customers shifting from the use of the traditional or long time methods of making and receiving payments such as cash and cheques which have been found to be more costly and could expose the parties to such payments to risks such as theft and forgery to the use of the more convenient and cheaper electronic means of making and receiving payments.

The study results also indicated that bank customers perceived trust on the EFT system positively affect their attitude towards using the system. Bank customer's trust on the EFT system could be affected by a number of factors depending on whether they are payers or beneficiaries. As a payer a customer of a bank is interested in the time it takes for him to fulfill his payment obligations especially if such obligations are urgent payments and a delay could lead to other undesirable consequences such as loss of interest or business opportunities. Both payers and beneficiaries are interested in receiving prompt responses or feedbacks or /confirmations from their bankers regarding the status of their EFT payment instructions. As a beneficiary of a payment, a bank customer is interested in the time it takes for a payment to be credited on his account or when he can access the funds for settlement of his own payment obligations which could be vital in a business sense such as maintenance of good credit rating from creditors and improvement of one's liquidity or cash flow position.

Information about a system is vital in directing or guiding people's reaction to a system by shaping their perceptions about the system. The available information if it should be of use should usually facilitate the dissemination of knowledge about the system's functions, capabilities and the rights and obligations of the system users in this case the payers and beneficiaries. Depending on one's preferences and the facts contained in the information provided, the recipient of the information would then generate a positive or a negative attitude towards the system's usage. In other words, information about a system is important in determining the perception of the targeted users of the system. The study also suggests that availability of information about the EFT system would also influence to some extent their attitudes towards the use of the system though the regression model indicated that its influence on acceptance of EFT system was not significant.

Bank customers' attitude towards the use of the electronic funds transfer system was found in this study to be the most powerful determinant of acceptance of the system. However, people's attitude is usually affected by their perceptions about the system. In conclusion, therefore, the study has established that the low acceptance of the EFT system in Uganda could be due the low bank customers' intention to use the system. The low intention is a result of their low attitudes towards the use of the system because of their negative perceptions about the system as compared to the alternative means of making payments. The low perceptions about the EFT system's usefulness, ease of use, trust and access to information about the system could be because of lack of relevant information about the system by different stakeholders that include the customers and some employees of banks.

## **5.8 Recommendations**

The result of this study has provided a framework for banks to refine their strategic planning objectives so as to enhance their competitive advantage. It is therefore important that policy makers in the banking industry in Uganda should carry out massive public awareness on the safety, convenience, reliability and informative campaign about the electronic funds transfer system. The public awareness campaigns should supplement banks' efforts geared towards building brand awareness that was being done. The public awareness campaign should be done through a number of ways to capture the attention of different stakeholders.

Banks should use the mass media to inform and educate the public about the EFT system. This can be done by newspaper adverts, newspaper pullouts, brochures, newsletters, and articles in magazine that are aimed at giving useful information to the public and addressing the frequently asked questions about the EFT system. Similarly, banks should use radio and television adverts and drama aimed at creating public awareness on the EFT system. These media have wide coverage especially the radio. Efforts should be made to translate some the campaign materials into major local languages to increase on the outreach of the EFT campaign.

Banks also need to organize stakeholders' workshops to educate current and potential customers about the uses, advantages, challenges and solutions for different payment modes so as to provide insight into the electronic funds transfer system. This way, banks would make the public feel that they are part of the change being implemented in the banking industry and would feel confident because they would be availed the



opportunity to contribute their views on the developments taking place and some of their fears may be demystified.

It is important for banks to build an innovative reputation, because customers are likely to place their trust in well-known innovations. In that respect banks should therefore organize and implement training for the various employees who are involved in the provision of EFT services to customers so that they are knowledgeable about the system and this in turn would enhance their effectiveness and efficiency in handling customers' requests for EFT transactions and providing informative reliable and trustworthy feedbacks on queries that usually come from customers and potential customers of the EFT system. The technical and business training of staff in handling new innovations such as the electronic funds transfer system would also help in building manpower/technical capacity in the banking industry so as to be ready to adopt the new innovations that are coming up now and in the future.

The above-suggested remedies to the low acceptance of EFT system in Uganda is expected to reverse the low perceptions that customers and potential customers have about the EFT system and create positive perceptions about the system. The public awareness campaign would keep customers well informed about the EFT system, which would help to raise their confidence level leading to increased use of the system and consequently this would make it possible for the banks and customers to derive the envisaged system's benefits. The increase in the bank customers' perceptions would generally lead to improved banks' general image of good service, efficiency and effectiveness which would in turn facilitate the attraction of more people to seek banking services.

## **5.9 Suggestions for further study**

Bank of Uganda in collaboration with the Ministry of Education and Sports and the Commercial Banks in an effort to encourage the use of EFT system and also to remedy the inconveniences parents and banks go through during the opening of new school/college/university term/semester, introduced and implemented in February 2007 a new method of paying fees using EFT Direct Debit. The project was undertaken in anticipation that it would reduce the queues at the banks, lessen the time required to process school fees payments once the Direct Debit Agreements (DDA) are properly executed.

This is a very fundamental policy decision that needs to be appraised to establish its success. It is therefore being suggested here that in future a study be carried out to establish the acceptance of the Direct Debit EFT for the payment of fees/tuition, since its implementation is intended to address identified problem of congestion and delays in paying fees at banks, and the fact that the desired goals can only be achieved if the system is accepted by the stakeholders.

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## APPENDICES

### Appendix I – The Expenditure

	<i>Items</i>	<i>Unit Measure</i>	<i>Units</i>	<i>Unit Cost</i>	<i>Item Cost</i>	<i>Sub-Total</i>
<b><i>Equipment &amp; Stationary</i></b>	Clipboard	Pieces	3	3,000	9,000	
	Writing pads	Pieces	4	1,500	6,000	
	Floppy diskettes	Packets	2	10,000	20,000	
	Flash disk	Pieces	1	45,000	45,000	
	Photocopying	Pages	500	100	50,000	
	Printing papers	Reams	5	9,000	45,000	<b><i>175,000</i></b>
<b><i>Other Expenses</i></b>	Transport - Research Assistants	Days	40	7,000	280,000	
	Lunch/tea	Days	40	4,000	160,000	
	Data analysis				200,000	
	Secretarial Work				300,000	
	Printing Costs	Pages	2,500	100	250,000	
	Spiral binding	Books	5	3,000	15,000	
	Book binding	Books	9	25,000	225,000	<b><i>1,430,000</i></b>
<b>Total</b>						<b><i>1,605,000</i></b>

## Appendix II - Time Framework (Work Plan)

<i>Activity</i>	<i>Duration in Weeks</i>	<i>Start time - Month</i>
Submitted Proposal		September 2006
Reviewed secondary data sources	4	February 2007
Questionnaire design	3	March 2007
Questionnaire pre-testing	2	March 2007
Data collection	6	April 2007
Data entry	3	May 2007
Data analysis	2	June 2007
Report writing	8	July 2007
Proof reading	4	September 2007
Made correction	5	October 2007
Print & spiral bind books for submissions	1	December 2007
Dissertation submitted		January 2008
Prepare for viva	1	June 2009
Make final corrections	2	August 2009
Print and bind final books	1	August 2009

## Appendix III - Questionnaire

# MAKERERE UNIVERSITY BUSINESS SCHOOL

Dear Respondent,

This questionnaire is intended to facilitate the study on **"Perceived Ease of use, Usefulness, Trust, Information Accessibility & Acceptance of Electronic Funds Transfer [EFT]"** The study is for academic purposes and is carried out as partial requirement for the award of Master of Science in Accounting & Finance Degree. As a client of one of the banks in Uganda, your responses will be highly appreciated and treated with utmost confidentiality. Thank you very much for your valuable time.

Please, tick the corresponding box for your response to each of the questions below:

### BACKGROUND INFORMATION

1. Gender Male  Female

2. Age of respondent

Years	18 - 30	31 - 40	41 - 50	Over 50

3. Highest level of education

Qualification	Ordinary Level	Advanced Level	Diploma	Degree	Post Graduate	Other (Please specify)

4. Nature of account you have with your Bank...

Account Type	Current	Savings	Foreign Currency	Fixed Deposit	Other

5. What is your favourite mode of payment for:

Nature of transactions	Cash	Cheques	EFT	RTGS	Others (Specify)
Low Value (i.e. School fees, Utility Bills & Salaries)					
High Value (i.e. Purchase of assets & Investments)					

	<b>SECTION A</b>	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	Using <b>EFT</b> will help improve the quality of the work I do with various payment instructions.					
2	Using <b>EFT</b> will give me greater control over my payment transactions.					
3	<b>EFT</b> will enable me to accomplish payment tasks more quickly than ever.					
4	<b>Electronic Funds Transfer</b> will help me save time so that I have time for more urgent issues.					
5	<b>EFT</b> Commerce will support critical aspects of my job.					
6	Using <b>EFT</b> will increase my productivity.					
7	<b>EFT</b> will help me save a lot of time in my transactions.					
8	Using <b>EFT</b> will improve my work performance.					
9	Using <b>EFT</b> will allow me to accomplish more work than would otherwise be possible.					
10	Using <b>EFT</b> will enhance my overall effectiveness.					
11	Using <b>Electronic Funds Transfer</b> will make it easier to pay my utility bills.					
12	If my bank fully implements <b>Electronic Funds Transfer</b> , I will attract clients for it.					
13	<b>Electronic Funds Transfer</b> mechanisms will help me accomplish transactions in a more timely fashion					
14	<b>Electronic Funds Transfer</b> will save me from the long cues that I make to pay my bills.					
15	Due to the overall usefulness I anticipate from <b>Electronic Funds Transfer</b> , I'll tell others about it.					
	<b>SECTION B</b>					
1	I will find <b>EFT</b> cumbersome to use.					
2	Learning to use <b>EFT</b> and other bank services will be very easy for me.					
3	Interaction with and use of the <b>EFT</b> will be difficult for many of my bank's members.					
4	I will find it easy to use <b>EFT</b> to do what I want it to do.					
5	The <b>Electronic Funds Transfer</b> will be rigid and inflexible to operate for ordinary individuals.					
6	It will be easy for me to remember how to perform access what service I want using <b>Electronic Funds Transfer</b> .					
7	Filling in forms for <b>Electronic Funds Transfer</b> request will require a lot of mental effort.					
8	My interaction with <b>Electronic Funds Transfer</b> will be clear and understandable.					
9	<b>Electronic Funds Transfer</b> is so user-friendly that I don't need a bank staff to help me with them.					
10	Using <b>Electronic Funds Transfer</b> will require a lot of training.					
11	I feel my level of education is too low to enable me use <b>Electronic Funds Transfer</b> system.					
12	Once my bank starts using <b>Electronic Funds Transfer</b> , I will always need someone to escort me to the bank.					
13	I will need a lot of training to fully explore the benefits of <b>Electronic Funds Transfer</b> .					

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
14	I feel that it will take a lot of effort to become skillful at using <b>Electronic Funds Transfer</b> .					
15	I think I will give the bank staff a hard time because <b>Electronic Funds Transfer</b> seems to be so complicated.					
16	Overall, I feel that the <b>Electronic Funds Transfer</b> will be easy to use.					
	<b>SECTION C</b>					
1	My bank can be relied on to keep its promises even with the Use of <b>Electronic Funds Transfer</b> .					
2	My bank employees can be counted on to be sincere and honest with me even though I resorted to use of <b>EFT</b> .					
3	With <b>Electronic Funds Transfer</b> , the bank staff would become more trust worthy					
4	<b>Electronic Funds Transfers</b> is not susceptible to errors.					
5	<b>Electronic Funds Transfers</b> are reliable.					
6	With <b>Electronic Funds Transfers</b> , I would never worry about possible loss of money in my transactions.					
7	My bank has friendly and readily available staff to help with <b>Electronic Funds Transfers</b> .					
8	Even if I used <b>Electronic Funds Transfers</b> , I believe my bank has high integrity staff.					
9	Bank staff understand me and show great care when I need to use <b>Electronic Funds Transfers</b> .					
10	<b>Electronic Funds Transfers</b> meet my expectations.					
11	Even if I made an error with <b>Electronic Funds Transfers</b> , I trust that bank staff would notify me.					
12	With <b>Electronic Funds Transfers</b> , I will trust the bank system more than ever before.					
13	<b>Electronic Funds Transfers</b> are almost error free.					
14	Once I use <b>Electronic Funds Transfers</b> , I never have to check on the transaction whether it is done as I want.					
15	<b>Electronic Funds Transfers</b> are more reliable than all other means the bank has today.					
	<b>SECTION D</b>					
1	My bank always provides and shares information with me about <b>Electronic Funds Transfer</b> .					
2	Regarding <b>Electronic Funds Transfer</b> , My bank always provides feedback on all my complaints.					
3	Bank staff always shows interest in solving all <b>Electronic Funds Transfer</b> problems.					
4	The Bank always informs me about the status of its <b>Electronic Funds Transfer</b> system.					
5	My bank is competent in communicating <b>Electronic Funds Transfer</b> anomalies.					
6	A toll free helpline is available for any <b>Electronic Funds Transfer</b> complaints.					
7	My bank has a suggestion box for complaints regarding <b>Electronic Funds Transfer</b> .					
8	<b>Electronic Funds Transfer</b> staff answers my calls politely and in a friendly manner.					
9	<b>EFT</b> staff returns my calls promptly.					

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
10	As a bank customer, am fully aware of all the <b>Electronic Funds Transfer</b> operations that concern me.					
11	The bank uses all available mediums of communication to convey <b>Electronic Funds Transfer system</b> updates.					
12	My bank has an information department from which I can obtain all information regarding <b>EFT</b> .					
13	Sometimes the bank sends me <b>SMS</b> messages to update me on its <b>Electronic Funds Transfer</b> systems.					
14	Radio announcements by my bank regarding <b>Electronic Funds Transfers</b> are common.					
15	My bank is doing its best to effectively communicate as regards <b>Electronic Funds Transfers</b> .					
	<b>SECTION E</b>					
1	I believe that <b>Electronic Funds Transfer</b> will encourage personal improvement.					
2	I have a strong belief that <b>Electronic Funds Transfer</b> will offer me the chance for personal growth.					
3	I feel I will accomplish many tasks with <b>Electronic Funds Transfer</b> .					
4	I expect <b>Electronic Funds Transfer</b> to be unpopular in its early years in Uganda.					
5	Policies that apply banks use for <b>Electronic Funds Transfer</b> will be made efficiently.					
6	<b>Electronic Funds Transfer</b> policies will be made with regard to customer opinions.					
7	I expect <b>Electronic Funds Transfer</b> policies and guidelines that will be clear.					
8	Policies governing use of Mobile Phone Commerce should be made known to the public.					
9	There is room for <b>Electronic Funds Transfer</b> advancement in Uganda.					
10	<b>Electronic Funds Transfer</b> should be implemented in consultation with the bank clients.					
11	I believe that I don't need <b>Electronic Funds Transfer</b> as I prefer to pay my bills manually.					
12	I generally don't feel satisfied with use of <b>Electronic Funds Transfer</b> .					
13	Am afraid the bank might have something fishy about this <b>Electronic Funds Transfer</b> .					
14	It will be a long time before <b>Electronic Funds Transfer</b> becomes my preference.					
15	I'm skeptic that <b>Electronic Funds Transfer</b> will ever work for me and fellow bank clients.					
16	<b>Electronic Funds Transfer</b> anomalies may be reluctantly dealt with.					
	<b>SECTION F</b>					
1	Each week, I use <b>Electronic Funds Transfer</b> many hours to pay my bills.					
2	I have been using <b>Electronic Funds Transfer</b> for a very long time now.					
3	I have sufficient knowledge on how to use <b>Electronic Funds Transfer</b> .					
4	I wish <b>Electronic Funds Transfer</b> had never been invented.					

		Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
5	I really enjoy learning <b>Electronic Funds Transfer</b> functions.					
6	Generally, I give more <b>Electronic Funds Transfer</b> advice to other people than I receive.					
7	I find <b>Electronic Funds Transfer</b> extremely easy to use.					
8	It is extremely easy for me to send funds using <b>Electronic Funds Transfer</b>					
9	It is extremely easy for me to receive funds using <b>Electronic Funds Transfer</b>					
10	I find it so easy to perform transactions using <b>Electronic Funds Transfer</b>					
11	I can operate any kind of transaction using <b>Electronic Funds Transfer</b> .					
12	I do not need any help to access the functions of <b>Electronic Funds Transfer</b> systems.					
13	I am knowledgeable in the latest modes of <b>Electronic Funds Transfer</b> systems.					
14	I intend to use the <b>Electronic Funds Transfer systems</b> as long as I am still in the business world					
	<b>SECTION G</b>					
1	Bank personnel will keep time schedules in installing the <b>Electronic Funds Transfer</b> infrastructure.					
2	Bank staffs are highly skilled in installing the <b>Electronic Funds Transfer</b> within a short time.					
3	My bank's skillfulness to implement <b>Electronic Funds Transfer</b> is poor.					
4	My ability to fully understand and use <b>Electronic Funds Transfer</b> technologies is doubtful.					
5	I am unsure of how user friendly or how easy it will be to access the <b>Electronic Funds Transfer</b> functions.					
6	After <b>Electronic Funds Transfer</b> is fully implemented, I will not need much customer care from the bank on how to use the technology.					
7	With <b>Electronic Funds Transfer</b> , learning the status of my electricity bills will be faster.					
8	After <b>Electronic Funds Transfer</b> is installed, I expected the rate of generating a status of my water bills from NWSC to be done much more quickly.					
9	Overall, I expect <b>Electronic Funds Transfer</b> to be very useful.					
10	<b>Electronic Funds Transfer</b> should be implemented immediately.					
11	I cant wait to start using <b>Electronic Funds Transfers</b> with my bank.					
12	All clients with my bank that I know of, are eagerly waiting to start using <b>Electronic Funds Transfers</b> .					
13	<b>Electronic Funds Transfers</b> will help me program my schedules better.					
14	<b>Electronic Funds Transfers</b> are definitely what I need in today's business world.					
15	Once implemented, I will always use <b>Electronic Funds Transfers</b> as much as I can.					

## Appendix IV - Reliability Analysis

### Reliability

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

- **Perceived Usefulness of Electronic Funds Transfer (EFT)**

R E L I A B I L I T Y    A N A L Y S I S    -    S C A L E    ( A L P H A )

1.	PUSEF1	Using EFT will help improve the quality
2.	PUSEF2	Using EFT will give me greater control o
3.	PUSEF3	EFT will enable me to accomplish payment
4.	PUSEF4	Electronic Funds Transfer will help me s
5.	PUSEF5	EFT Commerce will support critical aspec
6.	PUSEF6	Using EFT will increase my productivity.
7.	PUSEF7	EFT will help me save a lot of time in m
8.	PUSEF8	Using EFT will improve my work performan
9.	PUSEF9	Using EFT will allow me to accomplish mo
10.	PUSEF10	Using EFT will enhance my overall effect
11.	PUSEF11	Using Electronic Funds Transfer will mak
12.	PUSEF12	If my bank fully implements Electronic F
13.	PUSEF13	Electronic Funds Transfer mechanisms wil
14.	PUSEF14	Electronic Funds Transfer will save me f
15.	PUSEF15	Due to the overall usefulness I anticipa

#### Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
PUSEF1	55.7778	22.5359	.5381	.7843
PUSEF2	55.7222	22.3301	.5229	.7858
PUSEF3	55.6111	24.0163	.4476	.7922
PUSEF4	55.2778	24.8007	.4284	.7944
PUSEF5	55.8333	23.9118	.4559	.7915
PUSEF6	55.8333	23.4412	.6340	.7804
PUSEF7	55.3889	25.1928	.4282	.7954
PUSEF8	55.5000	21.5588	.7433	.7663
PUSEF9	55.2222	23.5948	.5228	.7867
PUSEF10	55.5556	24.0261	.4063	.7954
PUSEF11	55.6111	24.6046	.3006	.8042
PUSEF12	55.7778	26.3007	.1009	.8165
PUSEF13	55.4444	24.8497	.5828	.7894
PUSEF14	55.0000	27.2941	-.0219	.8188
PUSEF15	55.4444	25.0850	.2519	.8073

#### Reliability Coefficients

N of Cases = 18.0

N of Items = 15

Alpha = .8056



● **Perceived Ease of Use of Electronic Funds Transfer**

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

1.	EASEU1	I will find EFT cumbersome to use.
2.	EASEU2	Learning to use EFT and other bank servi
3.	EASEU3	Interaction with and use of the EFT will
4.	EASEU4	I will find it easy to use EFT to do wha
5.	EASEU5	The Electronic Funds Transfer will be ri
6.	EASEU6	It will be easy for me to remember how t
7.	EASEU7	Filling in forms for Electronic Funds Tr
8.	EASEU8	My interaction with Electronic Funds Tr
9.	EASEU9	Electronic Funds Transfer is so user-fri
10.	EASEU10	Using Electronic Funds Transfer will req
11.	EASEU11	I feel my level of education is too low
12.	EASEU12	Once my bank starts using Electronic Fun
13.	EASEU13	I will need a lot of training to fully e
14.	EASEU14	I feel that it will take a lot of effort
15.	EASEU15	I think I will give the bank staff a har
16.	EASEU16	Overall, I feel that the Electronic Fund

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
EASEU1	53.4375	49.8625	.4748	.7825
EASEU2	53.3125	53.9625	.1396	.8018
EASEU3	52.8750	51.0500	.3657	.7893
EASEU4	53.0625	53.3958	.2883	.7943
EASEU5	52.8125	49.4958	.4305	.7847
EASEU6	53.3750	53.8500	.2463	.7960
EASEU7	53.3750	42.7833	.7856	.7515
EASEU8	53.1875	54.5625	.1685	.7989
EASEU9	53.3125	55.8292	-.0538	.8185
EASEU10	53.0000	45.2000	.5438	.7745
EASEU11	53.8125	44.4292	.5462	.7745
EASEU12	54.4375	45.5958	.5153	.7774
EASEU13	53.1250	50.1167	.3793	.7883
EASEU14	53.3125	50.2292	.6008	.7789
EASEU15	53.6250	49.7167	.3735	.7889
EASEU16	53.0625	47.7958	.4899	.7797

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

Reliability Coefficients

N of Cases = 16.0

N of Items = 16

Alpha = .7979

● **Perceived Trust In Electronic Funds Transfer**

R E L I A B I L I T Y    A N A L Y S I S    -    S C A L E    ( A L P H A )

1.	TRUST1	My bank can be relied on to keep its pro
2.	TRUST2	My bank employees can be counted on to b
3.	TRUST3	With Electronic Funds Transfer, the bank
4.	TRUST4	Electronic Funds Transfers is not suscep
5.	TRUST5	Electronic Funds Transfers are reliable.
6.	TRUST6	With Electronic Funds Transfers, I would
7.	TRUST7	My bank has friendly and readily availab
8.	TRUST8	Even if I used Electronic Funds Transfer
9.	TRUST9	Bank staff understand me and show great
10.	TRUST10	Electronic Funds Transfers meet my expec
11.	TRUST11	Even if I made an error with Electronic
12.	TRUST12	With Electronic Funds Transfers, I will
13.	TRUST13	Electronic Funds Transfers are almost er
14.	TRUST14	Once I use Electronic Funds Transfers, I
15.	TRUST15	Electronic Funds Transfers are more reli

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
TRUST1	47.1875	35.6292	.5122	.8065
TRUST2	47.0625	37.9292	.2818	.8191
TRUST3	47.3125	34.8958	.5408	.8039
TRUST4	48.0000	33.0667	.6288	.7960
TRUST5	47.5625	35.7292	.5484	.8053
TRUST6	48.4375	29.8625	.6856	.7892
TRUST7	47.0000	37.4667	.4139	.8137
TRUST8	47.3750	35.5833	.3850	.8144
TRUST9	47.4375	37.1958	.3665	.8150
TRUST10	47.5000	33.0667	.6288	.7960
TRUST11	48.0625	41.3958	-.1753	.8477
TRUST12	47.8750	37.3167	.3686	.8150
TRUST13	48.1875	35.6292	.3818	.8146
TRUST14	48.6875	33.8292	.5420	.8028
TRUST15	48.0625	34.0625	.4912	.8067

Reliability Coefficients

N of Cases = 16.0

N of Items = 15

Alpha = .8210

● **Information on Electronic Funds Transfers.**

R E L I A B I L I T Y    A N A L Y S I S    -    S C A L E    ( A L P H A )

1.	INFOR1	My bank always provides and shares infor
2.	INFOR2	Regarding Electronic Funds Transfer, My
3.	INFOR3	Bank staff always show interest in solvi
4.	INFOR4	The Bank always informs me about the sta
5.	INFOR5	My bank is competent in communicating El
6.	INFOR6	A toll free helpline is available for an
7.	INFOR7	My bank has a suggestion box for complai
8.	INFOR8	Electronic Funds Transfer staff answers
9.	INFOR9	Electronic Funds Transfer staff returns
10.	INFOR10	As a bank customer, am fully aware of al
11.	INFOR11	The bank uses all available mediums of c
12.	INFOR12	My bank has an information department fr
13.	INFOR13	Sometimes the bank sends me SMS messages
14.	INFOR14	Radio announcements by my bank regarding
15.	INFOR15	My bank is doing its best to effectively

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
INFOR1	45.1429	38.1319	.2123	.7452
INFOR2	45.1429	33.6703	.5808	.7061
INFOR3	44.4286	35.4945	.5068	.7172
INFOR4	45.2143	33.8736	.5515	.7092
INFOR5	44.5000	36.7308	.5511	.7198
INFOR6	45.0000	39.0769	.1167	.7550
INFOR7	43.7857	45.5659	-.5513	.7885
INFOR8	45.0714	35.3022	.5686	.7127
INFOR9	45.1429	35.8242	.4299	.7238
INFOR10	45.0000	28.4615	.7279	.6757
INFOR11	44.4286	33.8022	.6902	.6992
INFOR12	44.4286	40.1099	.0315	.7627
INFOR13	44.6429	40.2473	-.0100	.7739
INFOR14	44.3571	35.4780	.5061	.7172
INFOR15	43.7143	38.5275	.3842	.7332

Reliability Coefficients

N of Cases = 14.0

N of Items = 15

Alpha = .7455

**•Attitude Towards Electronic Funds Transfer**

R E L I A B I L I T Y    A N A L Y S I S    -    S C A L E    ( A L P H A )

1.	ATTIT1	I believe that Electronic Funds Transfer
2.	ATTIT2	I have a strong belief that Electronic F
3.	ATTIT3	I feel I will accomplish many tasks with
4.	ATTIT5	Policies that apply banks use for Electr
5.	ATTIT6	Electronic Funds Transfer policies will
6.	ATTIT7	I expect Electronic Funds Transfer polic
7.	ATTIT8	Policies governing use of Mobile Phone C
8.	ATTIT9	There is room for Electronic Funds Trans
9.	ATTIT10	Electronic Funds Transfer should be impl
10.	ATTIT11	I believe that I don't need Electronic F
11.	ATTIT12	I generally don't feel satisfied with us
12.	ATTIT13	Am afraid the bank might have something
13.	ATTIT14	It will be a long time before Electronic
14.	ATTIT15	I'm skeptic that Electronic Funds Transf
15.	ATTIT16	Electronic Funds Transfer anomalies may

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
ATTIT1	54.7647	13.6912	.2456	.5171
ATTIT2	54.7647	15.5662	.0480	.5499
ATTIT3	54.7059	12.2206	.4836	.4536
ATTIT5	55.0588	12.8088	.5083	.4612
ATTIT6	54.8824	16.1103	-.0934	.5687
ATTIT7	54.9412	15.1838	.1138	.5419
ATTIT8	54.4118	15.5074	.0179	.5586
ATTIT9	54.5882	14.6324	.1681	.5336
ATTIT10	54.5882	17.0074	-.2821	.6015
ATTIT11	55.1176	13.6103	.2339	.5201
ATTIT12	55.2353	14.1912	.1987	.5279
ATTIT13	55.3529	12.8676	.5057	.4628
ATTIT14	55.1765	14.0294	.1943	.5294
ATTIT15	55.4706	15.0147	.0839	.5501
ATTIT16	55.2941	13.2206	.3687	.4887

Reliability Coefficients

N of Cases = 17.0

N of Items = 15

Alpha = .5451

**•Behavioral Intention To use Electronic Funds Transfer**

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

R E L I A B I L I T Y    A N A L Y S I S    -    S C A L E    ( A L P H A )

1.	BEHINT1	Each week, I use Electronic Funds Transf
2.	BEHINT2	I have been using Electronic Funds Trans
3.	BEHINT3	I have sufficient knowledge on how to us
4.	BEHINT4	I wish Electronic Funds Transfer had nev
5.	BEHINT5	I really enjoy learning Electronic Funds
6.	BEHINT6	Generally, I give more Electronic Funds
7.	BEHINT7	I find Electronic Funds Transfer extreme
8.	BEHINT8	It is extremely easy for me to send fund
9.	BEHINT9	It is extremely easy for me to receive f
10.	BEHINT10	I find it so easy to perform transaction
11.	BEHINT11	I can operate any kind of transaction us
12.	BEHINT12	I do not need any help to access the fun
13.	BEHINT13	I am knowledgeable in the latest modes o
14.	BEHINT14	I intend to use the Electronic Funds Tra

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
BEHINT1	44.5294	35.7647	.6640	.7624
BEHINT2	44.6471	37.6176	.4922	.7803
BEHINT3	44.0000	37.1250	.5938	.7703
BEHINT4	44.1176	39.7353	.4238	.7862
BEHINT5	43.0000	45.8750	-.0461	.8123
BEHINT6	43.4118	39.2574	.5328	.7778
BEHINT7	43.2353	36.1912	.5900	.7699
BEHINT8	43.3529	37.4926	.5961	.7706
BEHINT9	42.8824	44.3603	.2920	.7973
BEHINT10	43.1176	42.9853	.2794	.7961
BEHINT11	43.0588	41.8088	.2559	.8000
BEHINT12	43.3529	40.9926	.3293	.7940
BEHINT13	43.5294	37.7647	.5370	.7758
BEHINT14	43.2353	45.1912	.0644	.8054

Reliability Coefficients

N of Cases = 17.0

N of Items = 14

Alpha = .7989

• **Acceptance of Electronic Funds Transfer**

R E L I A B I L I T Y   A N A L Y S I S   -   S C A L E   ( A L P H A )

1.	ACCEP1	Bank personnel will keep time schedules
2.	ACCEP3	My bank's skillfulness to implement Elec
3.	ACCEP4	My ability to fully understand and use E
4.	ACCEP5	I am unsure of how user friendly or how
5.	ACCEP6	After Electronic Funds Transfer is fully
6.	ACCEP7	With Electronic Funds Transfer, learning
7.	ACCEP8	After Electronic Funds Transfer is insta
8.	ACCEP9	Overall, I expect Electronic Funds Trans
9.	ACCEP11	I cant wait to start using Electronic Fu
10.	ACCEP12	All clients with my bank that I know of,
11.	ACCEP13	Electronic Funds Transfers will help me
12.	ACCEP15	Once implemented, I will always use Elec

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
ACCEP1	43.0769	13.7436	.1260	.7583
ACCEP3	42.7692	11.1923	.5140	.7157
ACCEP4	43.0000	12.3333	.2781	.7512
ACCEP5	42.5385	12.7692	.5637	.7245
ACCEP6	42.4615	13.4359	.1229	.7652
ACCEP7	42.6923	10.8974	.7516	.6859
ACCEP8	42.5385	12.2692	.4751	.7241
ACCEP9	42.3846	11.7564	.4468	.7257
ACCEP11	42.2308	11.8590	.5906	.7111
ACCEP12	42.2308	12.6923	.3601	.7367
ACCEP13	42.1538	13.1410	.2125	.7534
ACCEP15	42.1538	12.6410	.3340	.7397

Reliability Coefficients

N of Cases = 13.0

N of Items = 12

Alpha = .7505