

## Evolution of E-Funds Transfer and its Impact on Customer Satisfaction.

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### **Abstract**

*We trace the evolution of e-funds transfer and establish its impact on customer satisfaction in a developing or emergent economy. We chose Uganda. In 1998 it established the National Payment System Secretariat (NPSS), mainly to reduce barriers to the use of electronic payments. We select Stanbic Bank Uganda Limited for our study. It is one of the early adopters of E-Funds Transfer. Our analysis indicates that there is a moderate positive relationship between e-fund transfer and customer satisfaction. We prove it statistically ( $r=0.323$   $p=0.003$   $n=82$ ), significant at 95 % confidence level since  $p$ -value (Sig.) is less than 0.050 ( $=0.000$ ).*

**Key Words:** E-Funds Transfer, Customer Satisfaction, Bank, Technology, Payment system

### **1 Introduction**

As a means of enhancing competitive edge, banks have had to spend more on digital information and communication technology than other companies in the financial industry. It is for this reasons that Fintech, the innovative financial services using new technology tools, such as big data, cloud computing, and mobile technology has assumed a lead position in the sector (Zhongqing (2019)). One of the most notable developments in the financial services sector is the electronic funds transfer (EFT) technology. There are numerous definitions of what electronic funds transfer (EFT) is. For example, it has been defined as a transfer of funds initiated through an electronic terminal, telephone, computer (including on-line banking) or magnetic tape for the purpose of ordering, instructing, or authorizing a financial institution to debit or credit a consumer's account (*Electronic Fund Transfer Act (EFTA)*). For the avoidance of doubt, it has been emphasised that EFTs include, but are not limited to point-of-sale (POS) transfers; automated teller machine (ATM) transfers; direct deposits or withdrawals of funds; transfers initiated by telephone; and transfers resulting from debit card transactions, whether or not initiated through an electronic terminal. EFT has also been defined as the electronic transfer of money from one bank account to another, either within a single financial institution or across multiple institutions, through computer-based systems and without the direct intervention of bank staff (National Payment Systems Act, 2020)

### **2 Justification of the Study**

The convergence of information and communication technology and the global endeavours geared towards financial inclusion, especially in the emergent and developing economies characterised by higher levels of financial exclusion of a larger proportion of the population relative to the developed economies, is sufficient justification for study of any aspect of the financial system which can promote the transformation to greater inclusion. This is especially so given the seamlessly integrated global economic and financial system and therefore the need to adopt fast, secure, effective and efficient payment systems, one of which is e-funds transfer. It is pertinent to study how countries are going about this. Uganda being one of the countries in the lower quartiles in terms of economic achievement but one that has proven resilience in trying to achieve commendable levels of transformation, registering on average 6 % economic growth over the past ten years, is an appropriate choice for the study. Stanbic Bank Uganda limited is one of the oldest and largest financial institutions in the country and one of the first to adopt transformative technology in the sector, thus the choice for it as a case study. Government and the services providers justify their existence on ability to satisfactorily serve the population in their jurisdictions. We believe the findings of the study will provide basis for governments as managers of the economy in formulating and providing the appropriate legal and regulatory

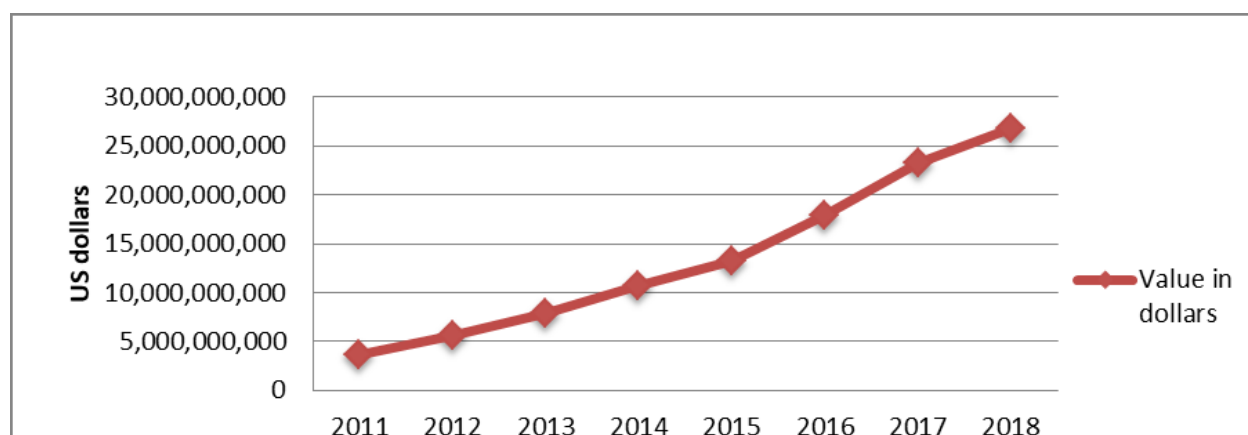
framework conducive to leveraging technology as a means to greater financial inclusion. Financial services providers will equally benefit from the study by tapping into the responses provided by the customers who participated in the research. A satisfied population of customers will be in the overall interest of the economies both local and global.

### **3 Sub-Saharan Africa adoption of mobile money technology**

Emergent and developing countries have greatly benefited from the adoption of mobile money technology. Their economies are transforming at a high pace from being cash transaction ones. to Electronic money is taking centre stage with user benefits ranging from facilitating users to better manage their cash flows, fostering the creation and expansion of businesses, reducing transaction costs, pooling capital or funds over time for effective allocation. The new financial technologies are as well as it simplifying and speeding up efficient government and non-government transfers (Alhassan & Koaudio (2019)).

Mobile money has remained a leading payment platform processing a billion United States dollars daily in the developing world. It is greatly contributing to the achievement of thirteen out of the seventeen Sustainable Development Goals. It has enabled the lowly endowed and underserved, especially rural and underprivileged communities in emergent and developing countries access service like microfinance, health and education and empowered women and youths with ability to create and finance businesses, and in the absence of or failure to access conventional financial institutions it has enabled them pay or receive payment with relative ease and security. The evolution and success of the mobile money platform has required commitment and heavy investment on the part of providers, to marry operator scale with fintech innovations. An example of such efforts is the GSMA Ecosystem Accelerator Program (GSMA (2017)). Mobile money has remained a leading payment platform processing a billion United States dollars daily in the developing world. It is greatly contributing to the achievement of thirteen out of the seventeen Sustainable Development Goals. It has enabled the lowly endowed and underserved, especially rural and underprivileged communities in emergent and developing countries access service like microfinance, health and education and empowered women and youths with ability to create and finance businesses, and in the absence of or failure to access conventional financial institutions it has enabled them pay or receive payment with relative ease and security.

The evolution and success of the mobile money platform has required commitment and heavy investment on the part of providers, to marry operator scale with fintech innovations. An example of such efforts is the GSMA Ecosystem Accelerator Program (GSMA (2017)). Supported by the UK Department for International Development (DFID) and the Australian Government, the program provides selected start-ups in Africa and Asia Pacific with grant funding, technical assistance, and the opportunity to partner with mobile operators in their markets to help scale their products and services into sustainable businesses. The GSMA Innovation Fund for mobile internet adoption and digital inclusion. The Fund aims to support innovations that promote mobile internet adoption and usage in jurisdictions that are underserved by providing financial assistance to start-ups or SMEs willing and able to work with mobile operators on projects which advance the United Nations Sustainable Development Goals (SDGs). Most specifically the fund aims at supporting solutions that seek to eliminate or reduce barriers to mobile internet adoption, easing or improving accessibility and usability of handsets and mobile internet services, ensuring that these are affordable, improving basic digital skills and confidence of users of the handsets and the internet as well as ensuring safety and security of those who want to use mobile internet. Sub-Saharan Africa has benefited from these and similar other efforts and increase in uptake for mobile handsets and the internet services has positively impacted on the increase in financial inclusion.



**Figure 1: Annual values of mobile money transactions in Sub- Saharan Africa**

Source: (Alhassan & Koaudio (2019)).

From table 1 over, over eight years from 2011 to 2018 annual values of mobile money transactions in Sub-Saharan Africa increased at an average rate of four billion dollars per annum. This is plausible given the relatively small economies of the continent.

### 3. Progress of Electronic Funds Transfer use in Uganda

In 1998 the Bank of Uganda, in its efforts to reduce transactions on cash basis in the country, established the National Payment System Secretariat (NPSS), with the major goal of reducing barriers to the use of electronic and non-cash based payments. Subsequently, payment systems and platforms such as electronic cheque clearance, electronic funds transfer and real time gross settlement were introduced. A key result of these initiatives were agreements between commercial banks and some of the key utility providers (water and electricity) enabling the payment of user charges at banks and platforms for payment of taxes to the Uganda Revenue Authority (URA). Fast tracking of e-transfer of funds benefited from two technological developments. First was the introduction of GSM mobile phone networks in 1993, which revolutionized the way that people communicated and conducted business. Second was the wide spread of internet connectivity, including mobile broadband and 3G networks. The combined results included reduced costs of access, variety of new platforms and systems for revenue collection, billing, payments and relatively reliable data connections (Development Innovations Group, 2012, Ndiwalana & Popov (2008)).

In August 2003, as a means of facilitating the provision of a variety of adequate payment instruments to the growing corporations and the corresponding increase in their transactions, Bank of Uganda implemented the Electronic Funds Transfer (EFT) method for both credit transfers and direct debits, and it praises the system of transferring funds electronically for providing fast, convenient, reliable and secure domestic payment and collection of funds. In its Strategic Plan 2017-2022, it has as an objective, the reduction of the use of paper money and cheques. By end of 2018, between 75 per cent and 85 per cent of retail transactions in Uganda were being effected using cash. It has been observed in a study of payment systems in Africa that although cash in circulation has risen in most countries in absolute values, the GDP's of half of the studied countries has risen faster, resulting in a diminished share of cash in circulation in the country's economies. Most notably, the value of ATM withdrawals, the most direct measure of the use of cash in day-to-day transactions, has significantly risen throughout the continent (World Cash Report (2018). Direct debits are being used, especially with customers authorising a bank to pay, from their account, as settlement of an obligation due to an utility services provider (for example the National Water and Sewerage Corporation or UMEME for electricity). Some customers have embraced similar arrangements with providers of telephone and insurance services, among others.

In 2007, the Bank of Uganda introduced EFT system of fees payment in educational institutions, drawing samples from selected secondary schools. The Direct Debit Agreements (DDAs) with the commercial banks have been appreciated by some parents for the benefits of flexibility and convenience. Commercial Banks are expected to credit a beneficiary's account within 24 hours upon receipt of a credit transfer instruction, and to debit the payer's account within 48 hours on receipt of a direct debit instruction confirmed against a mandate (Henley (2016)).

In Uganda, with long queues experienced at the beginning of terms and semesters, School fees payment has been one of the biggest challenges. Therefore, it was assumed that online payments could be adopted to solve the problem (Bank of Uganda (2017)). However, since its inception in 2007 by Bank of Uganda in collaboration with the commercial banks, the EFT system of paying fees in educational institutions has experienced low levels of acceptance and it has indeed faced some resistances in some instances. At the extreme some students have been removed from schools that used this system. A study carried out with regard to this matter indicated that a large proportion of parents expressed their preference towards use of old systems like bank slips, cash and some who have tried to modify use drafts (Ssempijja (2016)).

In 2017, Cabinet approved The National Payment Systems Policy for Uganda. The major objective was promotion of safety and efficiency of payment systems in the country as one of the pillars for fostering financial sector stability and economic growth. The policy gives special recognition of the use of electronic payment systems in Uganda for having dramatically enabled more people to gain access to financial services and thus the need to ensure that payment systems operate in a secure and efficient manner (Aula (2010)). The number of countries gearing towards cashless economies is growing, and the most cited example is Sweden, where cash payments constituted only 2% of total payment value in 2015 and are expected to fall to 0.5% in 2020 (Therése (2016)).

The realization that e-funds transfer can greatly transform financial transaction was also recognized by other players. For example, on recognizing that cash payments can be dangerous, costly, and lacking in transparency, because they are hard to track, NGOs accepted guidance of the United States Agency for International Development (USAID), to form what they called the Better Than Cash Alliance (BTC Alliance). The alliance members agreed to adopt electronic payments as a solution to the challenges related to transacting with cash. One such solution was mobile money. The challenges had been particularly noted with regard to issuing per diems for training participants and paying field staff (USAID (2012)). The choice of mobile money technology was motivated by the very impressive success experienced between 2009, when the mobile network operator, MTN, launched mobile money services and in 2012 when a case study was launched by USAID. Findings indicated that over that period subscribers registered for mobile money services rose from zero to approximately 7 million in the country. This represented 47 % of the total number of registered SIM cards. This was attributed to customer satisfaction with the safety, relatively low cost as well as efficiency of the system in sending and receiving money around the country. It is therefore not surprising that NGOs of various type have embraced electronic money transfers, notably mobile money. They have chronologically moved from in-kind aid, to cash transfers, then to digital cash transfers, with increasing intensity (GSM Association, 2017)).

There is abundant evidence pointing to the fact that e-payment services, such as mobile money, offer multiple benefits, including making financial transactions more affordable, efficient and transparent. It also enhances the capacity of individuals to power their own financial future, for example with easy-to-use savings and borrowing methods (Rajiv (2016)). By the last quarter of 2015, there were over 21.1 million registered mobile money users in the country. This represented an impressive 54 % penetration. This technology of money transfer effectively spurred financial inclusion from 28 % in 2009 to 54 % in 2013 (Macmillan, Paolo, Paremoer, (2016))

**Table (i) Statistics for mobile operators with mobile money services in March 2015**

Mobile network/ mobile money service	mobile subscribers (millions)	Mobile subscribers (millions)	Mobile money subscribers (millions)	Market share percent
MTN Uganda/MTN Mobile Money		10.4	7.3	58.4
Airtel Uganda (Warid)/Airtel Money		7.5	3.4	27.2
Uganda Telecom/M-Sente		9.8	1.3	10.4
Africell Uganda (Orange)		0.6	0.5	4.0
Uganda/ Africell Uganda Money				
<b>Total</b>		<b>28.3</b>	<b>12.5</b>	<b>100.0</b>

Source: Okwii (2015a) m <http://www.dignited.com/12624/airtel-uganda-is-leading-the-mobile-money-uganda-innovation-train/>

#### 4. Payment Systems

A payment system is a set of processes and technologies that transfer monetary value from one entity or person to another.) Creativity in payment systems can create or enhance opportunities of financial institutions to interface with current and potential customers at reduced costs, help in managing risk of system or counterparty failure as well as check on cybercrime and conventional fraud (Bank of Uganda of Uganda (2017)). Examples of systems that have transformed conduct of transactions are RTGS (Real Time Gross Settlement) and SWIFT (Society for Worldwide Interbank Financial Telecommunication) and the mobile wallet. The RTGS system refers to the continuous (real-time) settlement of fund transfers individually on an order by order basis (without netting). It involves the processing of instructions as soon as they are received rather than at a later time, thus the description 'Real Time.' It has been identified as being particularly relevant for large value transactions. SWIFT (Society for Worldwide Interbank Financial Telecommunication) is a bank-to-bank messaging system, and as its name implies, it is very relevant for counterparties dealing internationally. It provides a standardized language that institutions use to communicate payment instructions and other information to each other (Treasury Alliance (2018)). The mobile wallet (m-wallet), is an online payment system where customers can make payments online without having to carry the money with them. The system offers the features of convenience, speed and security, which has made it the new rage in the banking industry since the introduction of technology into banking services. It can be used either online or through a smart phone application. Even a person without access to bank or banking services, can easily access their accounts under this system (Allison (2019)).

In May 2020, the National Payment System Act 2020 was passed by the parliament of Uganda, to fill the legal void then prevailing because hitherto, there was no comprehensive law regarding payments in Uganda. This was despite the numerous technological developments regarding payments systems and other transaction, especially involving electronic means and given the globalisation and interrelationship in the financial and economic systems in particular. Bank of Uganda relied on article 162 (1) of the country's Constitution, vaguely empowering it to encourage and promote economic development through effective and efficient operations of the banking and credit system to develop the payment and securities settlement systems. These have over time included Real Time Cross Settlement System (RTCS) for interbank transfer, the Automated Clearing House (ACH) System for the clearance of cheques, and the Electronic Funds Transfers (EFTs). Regarding the securities settlement systems, there were the Central Securities Depository (CSD) systems operated by the Bank of Uganda (BoU) and the Securities Central Depository System operated by Uganda Securities Exchange (USE). Nevertheless, the law remained less than comprehensive



The new legislation has, as key objectives, regulating payment systems, providing for the safety and efficiency of payment systems; providing for the functions of the central bank in relation to payment systems; prescribing the rules governing the oversight and protection of payment systems; providing for financial collateral arrangements; regulating payment service providers; regulating issuance of electronic money; providing for the oversight of payment instruments and for other related matters. The law defines payment system to mean a system used to effect a transaction through the transfer of monetary value, and includes the institutions, payment instruments, person, rules, procedures, standards, and technologies that make such a transfer possible. Under the law categories of payment systems include those operated by the Central Bank, vis, the Real Time Gross Settlement System; the Automated Clearing House, the Central Securities Depository for Government debt securities; cross border payment systems; and any other payment system established by the Central Bank. A payment service provider licensed as an electronic money issuer is required to issue electronic money only after an equivalent amount of cash is deposited in the trust account or a special account, submit in electronic form to the financial institution holding the trust account, the customer information indicating, among others, the names of the customer whose funds are in the trust account; balances of the electronic money account; any other information as the central bank may prescribe; and comply with such requirements, as the central bank shall prescribe by regulations.

## **5 Theoretical Review**

In both government and the private sector huge investments are made with the intention of introducing new technologies to assist a paradigm shift in the life style of the users. Unfortunately, many of them have not yielded the anticipated results through these invitations, because they are not adopted by the intended users. Examples include the failed diffusion of the Electronic Health Record (EHR) and the Enterprise Resource Planning system (ERP). Some of the theories related to how and why users may or may not adopt technologies are discussed below (Gupta (2016)).

### **5.1 Technology Adoption Models and Theories**

Over time researchers have advanced various theories on innovation and motivations for adoption, including among others, the Theory of Reasonable Action (TRA) the Theory of Planned Behavior (TPB), the Technology Acceptance Model (TAM), Theory of Diffusion of Innovations (DIT), Decomposed Theory of Planned Behavior, the Technology Acceptance Model 2 (TAM2) and Technology Acceptance Model 3 (TAM3) (Viswanath & Hillol, 2008). Some are discussed below.

### **5.2 Theory of Reasonable Action (TRA)**

Ajzen and Fishbein's Theory of Reasonable Action (TRA) has its roots in the Persuasion Models of Psychology of the late of 1950s. It was intended to provide a theory that could predict, explain, and influence human behavior. It was developed in the field of social psychology and like many of the models of that time it emphasised the study of the individuals' behaviour through the impact of attitude as either a direct or an indirect effect on behaviour, and as a result of either one-dimensional or multidimensional factor. The two viewed this theory as being moderated by two main constructs, namely, attitude toward behavior and subjective norm.

### **5.3 Theory of Planned Behaviour**

Ajzen extended TRA by a construct of perceived behavioral control. It is theorized to be an additional determinant of intention and behavior. Accordingly, Theory of Planned Behavior TPB is a composite of the main constructs of the TRA, viz, attitude toward behaviour and subjective and the new one, the perceived behavioral control.

#### **5.4 Technology Acceptance Model (TAM)**

Intended to correct the defects of the theory of reasoned action, this theory integrated aspects of expectation theory and self-efficacy theory, and is used mainly to study behavioral intentions of those who use technology. Its distinguishing aspect are the concepts of perceived usefulness and perceived ease of use, especially as they relate to the adoption of new technology by consumers. Perceived usefulness is the degree to which a consumer using this new technology would improve the work efficiency of that consumer (Lai (2017)). Several researches have indicated that consumers have tended to perceive the adoption of information technology as a means of enhancing ease and convenience in Fintechs. A bank that has better competences than another in mining and use of data to construct a user knowledge map will outcompete the lesser endowed (Davis,1986). Two major conclusions of the TAM are that there is a positive attitude toward new technology premised on intentions to adopt this technology and that there is a significantly positive correlation between users' attitudes toward a certain technology and their adoption intentions, which has been widely confirmed in the research of the banking field(Chang, et al (2016)).

#### **5.5 Technology Acceptance Model 2 (TAM2)**

It has been noted above in TAM that its distinctive aspects are the concepts of perceived usefulness and perceived ease of use. In a bid to improve the earlier TAM, Venkatesh and Davis added the subjective norm construct. Thus, the Extended Technology Acceptance Model or TAM2(Sargolzaei (2017)). A relationship exists between subjective norm and both perceived usefulness and intention of use. perceived usefulness is moderated by the user experience, and the intention of use is moderated by the user experience and voluntariness of use. Continued satisfactory experience with a good or service will reinforce its acceptance, that is, the existence of experience moderator will show the increase in the level of users' experience in technology over the time, and this will cause a tangible change in technology acceptance to them (Alaa & Mamouni (2017)).

#### **5.6 Technology Acceptance Model 3**

TAM3 is a turnaround of the homological network of what determines decision to adoption and use of information technology. Unlike the TAM2 which suggested only one addition to TAM, subjective norm, TAM3 added three constructs after subjective norm, namely computer playfulness (the degree of cognitive spontaneity in microcomputer interactions.), perceived enjoyment(the extent to which the activity of using a specific system is perceived to be enjoyable in its own right, aside from any performance consequences resulting from system use) and objective usability. The comprehensive nature of the model has endeared it to academics and practitioners arguing that it provides a good basis for decision makers and managers in various fields, especially urban managers (Rouhallah, Fatemah & Sajjad (2017)).

#### **5.7 Theory of Diffusion of Innovations (DIT)**

Diffusion of innovations theory was propounded by Everett Rogers and it seeks to explain how, why, and at what rate new ideas and technology spread. He argues that diffusion is the process by which an innovation is communicated over time among the participants in a social system, and that it occurs over five stages, namely, awareness, interest, evaluation, trial, and adoption. They are integral to this theory, with the possibility of the individual rejecting an innovation at any time during or after the adoption process (Venkatesh & Bala (2008)).

#### **5.8 Decomposed Theory of Planned Behavior (DTPB)**

It is an improved TPB, which in turn means it is an enhancement of TRA. In addition to the constructs of these two models, DTPB adds relative advantage, compatibility, and complexity. Relative advantage refers to the degree to which an innovation is perceived as being better than its precursor. Accordingly, (DTPB) attempts to

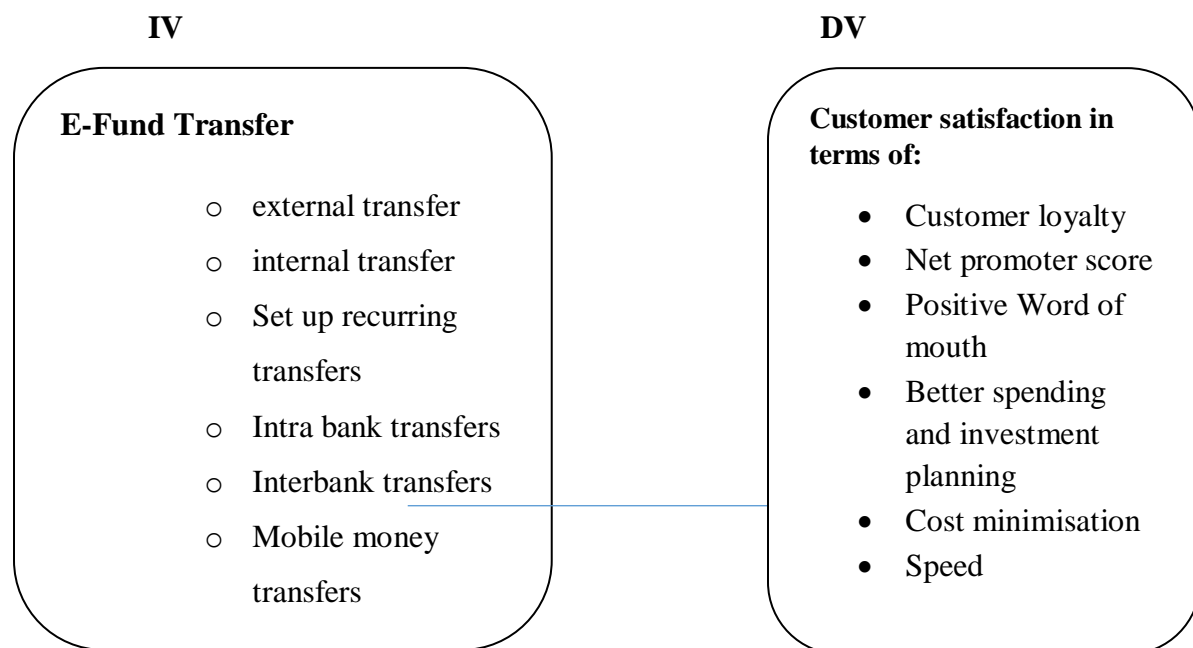
decompose attitude toward behaviour, subjective norm, and perceived behavioural control into multi-dimensional belief constructs within technology adoption contexts (Mustafa & Gasaymeh (2013)).

### 5.9 Combined TAM and TPB (C-TAM-TPB)

Developed in 1995, the model combines features of the TPB model whose origins are in social psychology field and TAM from information technology field. Both TPB and TAM theories are premised on the assumption that behaviour is determined by the intention to perform the behaviour. Intention itself is determined by the attitude towards behaviour. Both perceived usefulness and perceived ease of use are positively influencing on attitudes. Thus, attitudes, subjective norms and perceived behaviour control are positively influencing on usage behaviours (Shih & Fang (2004)).

### 6 Conceptual Framework

A conceptual framework is an interconnected set of ideas (theories) about how a particular phenomenon functions or is related to its parts and it serves as the basis for understanding the causal or correlational patterns of interconnections across events, ideas, observations, concepts, knowledge, interpretations and other components of experience(Rahmath et al (2013)). The conceptual framework offers many benefits to a research. For instance, it assists the researcher in identifying and constructing his/her worldview on the phenomenon to be investigated (Marilla(2010)).



**Fig 1: Source: Adapted and Modified from Shields et al, (2013)**

**Where:** **IV** means Independent Variable and **DV** means Dependent Variable

There are various types of transfers. They may, among others, be external, internal, recurring, intra or interbank. Whatever the type of transfers, there are at least two parties to the transaction. At all stages time is of great essence, just as are expense control, management of all types of risks including loss through theft or fraud and currency risk, convenience and user friendliness. Use of an electronic payment system can incredibly reduce fees of transactions to 1% of the total amount chargeable by an internet service provider or a mobile account replenishment through the unattended payment terminal (UPT). As stakeholders, banks leverage e-banking and e-transfers to save operational costs, increase customer base, achieve mass customisation for e-business clientele, effectively and efficiently communicate with external publics and save time for exploring and developing non-core business (Cynthia & Azadeh, (2014)). Consumer perception of online services is a



function of many factors critical among these being the nature and complexity of information and products menu provided to them. Paying utility bills, obtaining account information and accessing the bank statement easily have been key attraction of the innovation and technological transformation of the banking sector (Khatri & Kshitiz (2013)).

## 7 Methodology

In this section the researcher presents the methods and procedures for conducting this study in the following sections: research design, area of study, study population, sampling procedures, data collection methods and instruments, quality control methods, data management and processing, data analysis, and ethical considerations.

### 7.1 Research Design

This investigation was based on a case study of Stanbic Bank Uganda Limited Uganda Limited Head office in Kampala Capital City. The reasons of using a case study were that, it was a good source of ideas about behaviour, it was a good method to study rare phenomena and it was a good method to challenge theoretical assumptions. Within this design, a cross-sectional approach was adopted. This involved collecting data at once, from employees of Stanbic Bank Uganda Limited head office in Kampala Capital City and customers.

### 7.2 Study Population

The target population of this study comprised of employees in Uganda's commercial banking sector. However, the accessible population comprised of employees of Stanbic Bank Uganda Limited head office and some customers that visited the branch in the same location. According to the Head of Human Resources, Head office on Crested Towers was the biggest branch of Stanbic Bank Uganda Limited with over 110 employees. It will be noted that the bank has both external and internal customers, the latter being staff of the bank. Internal customer satisfaction is therefore part of the study.

### 7.3 Determination of Sample size

Using the table of appropriate sample size for a given population size, a sample of 91 participants was arrived at (Krejcie & Morgan's (1970)).

**Table (ii): Showing the sample size of the respondents**

	Target population	Sample size
Managers	5	5
Middle Level staff	10	10
E-banking operative staff	5	5
Customer relationship officers	8	8
Customers of Stanbic Bank Uganda Limited.	75	63
Total	103	91

Source: Authors

Table (ii) above indicates a target population of 5 managers, 10 Middle Level staff involved in E-banking operations, 5 Head office (Stanbic) E-banking operative staff, 8 Customer relationship officers attending walk-in-customers and 75 Customers of Stanbic Bank Uganda Limited, totalling 103 out of 110 employees. The sample size is 91, which is quite representative of the target population.

### 7.4 Data Collection Methods and instruments

Questionnaire and field guides were used. Questionnaire survey involved collecting quantitative data from selected employees and customers of Stanbic Bank Uganda Limited. The researcher obtained written permission from the bank's administration to interview respondents. The researcher then employed a

combination of data collection methods including questionnaire survey, key informant interviews, and documentary review. Questionnaires were used because they were cost-efficient to gather quantitative data. Apart from being inexpensive and flexible, questionnaires were also a practical way to gather data. They were targeted to groups chosen and were managed very well. The major study variables were measured using structured close-ended items adopted from previous research studies and assessed using a five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree. Close-ended questions were used.

### 7.5 Procedure of Data collection

Employees were given questionnaires and requested to fill them within a specified time period, and were collected from the respondents upon completion. Key informant interviews involved collecting qualitative data through in-depth face-to-face engagements with selected heads of department of Stanbic Bank Uganda Limited departments in the bank to compliment data obtained through questionnaire surveys.

### 7.6 Data Analysis

A combination of quantitative and qualitative data analysis techniques was employed in this study. Quantitative data analysis techniques involved the use of descriptive statistics such as frequencies and percentages to summarize responses. Pearson's correlation coefficient was used to establish the relationship between dimensions of E-banking and customer satisfaction as specified in the study objectives.

## 8.0 Presentation, Analysis and Interpretation of Results

This section presents data collected using the questionnaire, and interviews and the corresponding interpretations according to the study objectives. The findings were arrived at by analysing and interpreting the available data using SPSS and Microsoft Excel software.

### 8.1 Response Rate

The total number of respondents who constituted the sample used in this dissertation are summarized below.

**Table (iii): Showing the Response Rate**

Sample	Frequency	Percentage
Bank Employees and customer		
Response	87	96%
Non-response	4	4%
<b>Total</b>	<b>91</b>	<b>100</b>

**Source:** *Primary Data*

In table (iii), the total of respondents was ninety one (91) where eighty seven (87) questionnaires were returned and all interviews were conducted. The response rate was therefore 96 % which is highly reasonable response rate.

### 8.2 The Relationship between E-fund Transfer and Customer Satisfaction;

We wanted to statistically establish whether e-fund transfer positively influence customer satisfaction. This was guided by the hypothesis: e-fund transfer positively influences customer satisfaction.

### 8.3. Correlation Analysis

Correlation analysis is a statistical method or process used to evaluate the strength of relationship between two quantitative variables. The higher the correlation between variables the stronger the relationship, with available statistical data. The study question of whether e-transfers have an impact on customer satisfaction at a 95 % level of significance (two-tailed) was tested using Pearson's product-moment correlation coefficient. Charles

Spearman’s or rank correlation is a non-parametric technique for determining the degree of correlation between two variables in case of ordinal data in cases where ranks are given to the different values of variables. The results of the test are presented in table (iv) below.

**Table (iv): Correlation Matrix for e-fund Transfer and Customer Satisfaction;**

Correlations		E-fund transfer	Customer satisfaction
<b>E-fund transfer</b>	Pearson Correlation	1	.323**
	Sig. (2-tailed)		.003
	N	82	82
<b>Customer satisfaction</b>	Pearson Correlation	.323**	1
	Sig. (2-tailed)	.003	
	N	82	82

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

Table (iv) above shows that there is a moderate positive relationship between e-fund transfer and customer satisfaction; (r=0.323 p=0.003 n=82). The relationship is statistically significant at 95 % confidence level since p-value (Sig.) is less than 0.050 (=0.000). This implies that improvements in e-fund transfer shall be related to improvements in customer satisfaction. Similarly decline in e-fund transfer shall be related to decline in customer satisfaction.

**8.4 Regression Analysis**

Regression analysis is a statistical approach for modelling the association between a dependent variable, called response, and one or more explanatory or independent variable (s). The analysis enables the researcher to formulate a mathematical model depicting the relationship amongst variables (if it exists) which can be used for purposes of predicting the values of dependent variables, for given values of independent variables. In this study regression analysis was used to establish the extent to which e-fund transfer affects customer satisfaction. It will be noted that the regression analysis mathematical model derived highly depends on correlation analysis, in this case, the results indicated in table 4 above. The coefficient of determination (R Square) was used and the results are presented in the table below.

**Table (v): Model Summary**

Model 1	R	R square	Adjusted R square	Std. Error of the Estimate	R Square Change	F Change	df1	Df2	Sig change	f
	.323	.105	.093	.58439	.105	9.33	1	80	.003	

a. Predictors: (Constant), E-fund transfer

Table (v) above shows that the coefficient of determination (Adjusted R Square) is 0.093. This implies that E-funds transfer accounts for 9.3 % of the variance in customer satisfaction. There are therefore other factors outside E-fund transfer that contribute to the greater percentage of customer satisfaction. The standard error of estimate, e, measures the degree of accuracy of predictions given by the regression model. It is the square root of the average squared deviation. A small value of a standard error of estimate implies the estimate based on the equation of the line is closer to the actual, and in the extreme, a standard error is zero implies that there is no variation corresponding to the computed line and the correlation will be perfect. The standard error of estimate derived from the study statistics is 0.58439, which is quite modest and an affirmation of the reasonable degree of reliability of the model. This is corroborated by Sig F of 0.003 and square change of 0.105 in the table

### 8.5 Employee views on e-funds transfer

Employees are internal customers of the organization employing them. Stanbic Bank Uganda Limited views on e-transfer of funds were sought using 7 items scored on five-point Likert scale of 1=strongly disagree, 2= Disagree, 3=Neutral, 4=Agree, 5= strongly agree.

**Table (vi) Employee views on e-funds transfer**

	N	SDA	DA	NS	A	SA	Mean	Std. Deviation
There is ease in external fund transfer	32		5	9	7	11	3.75	1.107
There is ease in internal fund transfer	32		1	2	11	18	4.44	.759
There is reduction fraud cases	32		1	2	12	17	4.41	.756
Ease of transfer of peer to peer funds	32		1	2	11	18	4.44	.759
Less paper work in banking halls	32		0	1	11	20	4.59	.560
Less man hours are applied to customers	32		0	4	12	16	4.38	.707
Resources are skewed to other bank activities	32		1	3	15	13	4.25	.762

*Source: Field Primary Data*

Key: SD= strongly disagree, D=Disagree, NS = Not sure, A= Agree, SA=strongly agree

From table (vi) above, the respondents were asked in order to find out whether, there is ease in external fund transfer; respondents were asked to state the extent to which they agreed with the above. There are two major results as reflected by way of standard deviations and means. First was the issue of whether there is ease in external fund transfer using e-means. The standard deviation was 1.107, accompanied by a mean of 3.75. Of the thirty two respondents, eleven (34 %) strongly agreed, while seven (22 %) agreed. Nine (28 %) were neutral, while five (sixteen percent) disagreed and nobody strongly disagreed. This implies that the 56 % of the respondents were in approval, 16 %disagreed. The other major result was on the issue of whether there was lesser working paper, the standard deviation was 0.560 accompanied by the highest mean of 4.59. Of the thirty two respondents, twenty (63 %) strongly agreed, while eleven (34%) agreed, one (three percent) were neutral, while zero % disagreed and similarly zero %strongly disagreed. This implies that the majority, 97 % of the respondents were in approval, with a mean of 4.59 and SD of 0.560. From the findings above this shows that to deliver on the e-banking through e-funds transfer customer satisfaction should be keenly addressed.

Regarding ease of transfer of peer to peer funds, the study revealed that; of the thirty two respondents, eighteen (56%) strongly agreed, while eleven (35%) agreed, two (6%) were neutral, while one (3%) disagreed and zero % strongly disagreed. This implies that 90 % of the respondents were in approval while 3 % disagreed and 6 %had a neutral opinion with a mean of 4.44 and SD of 0.759. From the findings above this shows that ease of transfer between peers is a key attribute which should be well managed by the bank. From the findings of the study the respondents were asked whether less man hours are applied to customers when e-funds transfer was used. Of the thirty two respondents, sixteen (50%) strongly agreed, while twelve (38%) agreed, four (13%) were neutral, while zero % disagreed or strongly disagreed. This implies that 88 %of the respondents were in approval, none disagreed and 13 % had a neutral opinion with a mean of 4.38 and SD of 0.707. This shows that man hours are a key attribute which should be addressed by the bank stakeholders. From the findings of the study the respondents were asked about resources being skewed to other bank activities. Of the total respondents, thirteen (40% ) strongly agreed, fifteen (48% ) agreed, three (9%) were neutral, while one (3%) disagreed and zero % strongly disagreed. This implies that 88 % of the respondents were in approval, 9 % were neutral, 3% disagreed while zero % strongly disagreed. with a mean of 4.25 and SD of 0.762. This shows that resources being skewed to other bank activities is a key attribute which should be addressed by the bank stakeholders.

## 9 Conclusions

We have, through this study proved that there is moderate positive relationship between e-fund transfer and customer satisfaction. In an increasingly interconnected world with a lot of pressures on users of the financial systems, availability, efficiency and effectiveness of means to settle payments is not a luxury. There is thus the need for both policy makers and financial services providers to be continuously innovative and sensitive to the needs of users of payment systems. In recognition of the intrinsic benefits as well as positive externalities of facilitating ease of non-cash settlements, both the financial services providers and government have sought out ways to create an enabling environment by way of technological innovation and legislation, respectively. One of the several features of the evolving payment system is e-funds transfer. The government of Uganda has, over a span of about twenty years, ensured the systematic evolution of the national payment system to cater for among the several modes, e-fund transfer.

We have further proved through the study that improvements in e-fund transfer shall be related to improvements in customer satisfaction. Similarly decline in e-fund transfer shall be related to decline in customer satisfaction.

We have furthermore established from the study that with less work hours required through e-transfers to serve customers, the bank can reallocate resources to planning, policy implementation and other value enhancing bank activities, with resultant better service delivery to the customers in particular and the economy in general. Satisfied customers are an asset to the economy as they go about their activities with confidence and minimal or no psychological pressures arising from or regarding their financial transactions.

## 10 Recommendations

The study recommends that a similar research incorporating in other aspects like, leadership and working conditions, working and organization culture and practices among others. Future researchers can focus on looking at the other factors other than those mentioned and studied. This clearly shows a critical look at the above areas derives a holistic picture of ways and avenues affecting understanding electronic-banking and customer satisfaction.

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