EXAMINING DETERMINANTS OF BEHAVIORAL INTENTION IN ADOPTION OF MOBILE MONEY TRANSFER SERVICES IN UGANDA

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Abstract

Mobile Money has continuously brought changes on our daily lives by offering interesting and advantageous services specifically enabling users to pay for goods and services using their mobile devices wherever they go, withdraw and deposit of money using mobile phones, mobile banking and buying of airtime top ups. This study aimed at examining the determinants for adoption of mobile money transfer services (MMTs) in the rural parts of Uganda, where the adoption rates are said to be low. The study used a cross sectional survey methodology to gather data from 300 respondents from the rural parts of Kampala district on the variables captured by the modified facets of the Unified Theory of Acceptance and Use of Technology Model. Results of correlation and regression analysis demonstrate that Customer Expectancy and Social Factors have a positive and significant influence on Behavioral Intention towards the use of Mobile Money Transfer service while Transaction costs was found to insignificant. The findings of this study provide useful information to Mobile Network Operators that they can use in fostering the implementation of Mobile Money Transfer services in the rural areas of Uganda.

Keywords:

Mobile Money Transfer Services (MMT), Mobile Network Operators (MNO), Uganda, Unified Theory of Acceptance and Use of Technology (UTAUT), Uganda Communication Commission (UCC)

1. INTRODUCTION

During the last decade, there has been tremendous growth in mobile money penetration in many countries across the globe and most interestingly in a number of developing countries. Mobile Money has continuously brought changes on our daily lives, and offers interesting and advantageous new services in specific, the mobile money transfer system (MMTs) has emerged, enabling users to pay for goods and services using their mobile devices (especially mobile phones) wherever they go [1].

Mobile money transactions/uptake are transforming the world of finance, and indeed improving financial inclusion in hitherto unbanked populace [14][2]. Furthermore, it is changing human lives with increased convenience, enhanced standard of living for the unbanked population and stimulated economic development as evidenced in the study on mobile money inclusion analysis [3]. Mobile money transfer services have also modified the lives of the poor partially eliminating reliance solely on cash which keeps many people excluded from the formal economy. Mobile money brings convenience to the doors of the poor since it is safe and readily available compared to cash. In developing nations in Africa like Kenya and Tanzania where Mobile Money is a success, the bottom of the pyramid feel included in national financial policy. Apart from reducing dependency on cash, MMTS has also opened an avenue for companies and institution

to provide other vital financial services like the M-shwari, a savings and loan facility run on Mpesa platform in Kenya [4].

The growth of the mobile money sector has remained persistent all over the world estimated 150 million live mobile money services for the unbanked in 72 countries [5]. This tremendous growth is attributed to the Mobile Network Operators (MNOs), which operationally run 72.0% of live deployments and 72.5% deployments launched in 2012, with most deployments centered in Sub-Saharan Africa.

Uganda has six Mobile Money Network providers that offer mobile money transfer services, namely; MTN (MTN-Mobile Money), Airtel (Airtel-Money), Uganda Telecom (M-Sente), Africel), Safaricom (M-pesa) [6]. However MTN remains the dominant mobile money provider with about 7.3 million subscribers (UCC 2014). Mobile money therefore has a high potential to foster financial inclusion in Uganda, just as much as it has been in neighboring Kenya [5]. This massive adoption and use of this innovative financial service in Uganda is attributed to a number of factors including, but not limited to, a combination of a literate and relatively young population, strong demand for sending money to friends and family quickly and securely, a rapidly growing market penetration for mobile phones, an enabling regulatory environment; and a competitive market place, where supply is racing to meet demand [7].

Although the massive deployment of mobile money services in developing countries has generated a lot of interest among various players in the financial sector of the economy [1]. Its use and adoption by people of Uganda has been observed to be low most especially in rural poor [10]. This is observed where out of the entire 19.5 million mobile money subscriber equivalent to 52.3%, 37% are urban households that use MMTs with only 16% rural household that use MMTs causing a disparity in the use and adoption of the technology [8]. This study employed the Unified Theory of Acceptance and Use of Technology (UTAUT) constructs with Customer expectancy, Social factors and Transaction cost as dependent variables to elaborately investigate what affects adoption of mobile money services in the rural parts of Uganda.

1.1 PROBLEM STATEMENT

The advent of prepaid cards and the dropped rates of mobile handsets in emerging and less developed economies have been the greatest driver to Mobile Money Transfer (MMT) services in Africa [9]. The benefits derived from using the mobile money transfer services like convenience, flexibility, simplicity, low cost and its potential of improving financial services has generated of a lot of interest among various players in the financial sector of the economy [10]. However in Uganda, the use and adoption has been observed to be low most especially amongst the rural parts

of the country. This is observed where out of the entire 19.5 million mobile money subscriber equivalent to 57%, 38% are urban households that use MMTs with only 19% rural household that use MMTs, causing a disparity in the adoption and use of the technology [8]. Thus, Customer expectancy, Social factors, Transaction cost and Behavioral Intention may be attributed to low adoption and use of Mobile Money Transfer services in Uganda.

1.2 SIGNIFICANCE OF THE STUDY

The findings from this research study contribute to the adoption and use literature in the area of Mobile Money and in the developing nations. More specifically, to close the gap that exists for Uganda by serving as a starting point for further research. The findings from this research study can be used by Telecommunication Companies to improve Mobile Money transfer services and to identify those factors that can either contribute to the failure or success of the mobile money transfer services in the rural areas of the country and this could further be used for decision making. To academia, firstly, the research aligns customer expectancy, social factors and transaction costs as significant predictors of MMTS in the rural areas of Uganda. Secondly, the study serves as a source of academic reference for further studies.

2. LITERATURE REVIEW

This section analyses relevant documentation and findings that are essential to improve the research and its capacity to analyse the concerns it seeks to accomplish, that is, the theoretical literature and the empirical literature. The theoretical literature presents and explains the theories that relate to the subject matter that is mobile money adoption and use. The empirical literature describes what has been practically observed and validated objectively in relation to the subject matter.

2.1 MOBILE MONEY

Money is a principal component to all practices of transactions. Money is used as a store of value and a means of exchange and therefore the ability of mobile phones to store value and be used as a means of exchange will depend on users' adoption and use of the mobile money transfer technology since most developing countries operate a cash economy. Mobile money can be defined as money that can be accessed and used via mobile phone. This means that money can easily be accessed anytime and anywhere to complete a business process. The access takes place using mobile communication networks, making available these services independent of the geographic location of the user [11].

2.1.1 *Mobile Penetration in Uganda:*

There has been a tremendous growth rate of mobile phone penetration in Africa since the beginning of the 20th century, as it partakes elsewhere in the developing world. It is stated that in 1998 there were less than two million mobile phone users in Africa, but by 2009, the number had grown to over 400 million. The mobile telecom operators are therefore progressively more captivated by the desire and potentialities of reaching millions of potential customers, especially the rural population who account

for more than 60% of Africa's total population and previously had no access to banking services [1].

In Uganda, the mobile phone penetration growth rate has been extraordinarily high over the years with at least 52.3% (19.5 million) of Ugandans connected to different mobile tele-communications networks. There are currently 9 mobile network operators in Uganda including: MTN, Airtel Uganda, Uganda Telecom, Africel Uganda Telecom, Sure Telecom, Telecom, Smart and Vodafone Uganda with MTN and Airtel have the biggest share of more than 17 million users split between them [8]. Therefore mobile telecommunications operators are challenged with an overwhelming task of matching the increased enthusiasm for MMTs.

Mobile money has greatly fostered financial inclusion in Uganda; this has been so due to the prevalence of a highly regulated and protected mobile telecoms market, and the notable absence of foreign competing firms that act as strategic facilitators by offering enormous growth opportunities for MMT services. Just much as it has been in neighboring Kenya [5]. This massive adoption and use of the innovative financial service in Uganda is attributed to a number of factors including, but not limited to, a combination of a literate and relatively young population, strong demand for sending money to friends and family quickly and securely, a rapidly growing market penetration for mobile phones, an enabling regulatory environment; and a competitive market place, where supply is racing to meet demand [7].

2.1.2 *Mobile Money Network Service Provider:*

A mobile money network service provider manages the mobile money platform. The responsibility of a mobile money service provider is to ensure the smooth and sound operation of the service, including management of risk, monitoring of money laundering and terrorist financing, addressing consumer protection issues and providing periodic reports to Bank of Uganda. It is responsible for the maintenance and back-up of the mobile money system and for ensuring that this system is replicated at the partnering licensed institution. It also prepares reconciliations and attends to customer complaints [2]. There are six Mobile Money Network service providers, namely; MTN (MTN-Mobile Money), Airtel (Airtel- Money),Uganda Telecom (M-Sente), Africel-Money), Safaricom (M-peas) [6]. However MTN remains the dominant mobile money provider with about 7.3 million subscribers [8].

2.1.3 *Mobile Money Transfer Services:*

Mobile money transfer is referred to as the process of transmitting money from one person to another through phone activation that can be ultimately honored with cash transactions by a financial or business institution [10]. This rapid expansion of mobile money Transfer Service provides an opportunity to shorten the gap in the use of financial services by the Ugandan population. Although there are many formal financial Institutions like Banks and Microfinance institutions (MFIs) that have been in existence for almost a decade, this gap exists because they have not effectively reached the majority of the population. Approximately 20% of Ugandans have access to financial services, and the banks struggle to find a feasible and profitable way to engage down market clients [7]. This small banking footprint means that both EFT and card- based payments are available, but not widely used. Low levels of saving, low levels

of lending, high margins and costs are main reasons why Uganda has only an estimated 468 bank branches today, clearly insufficient for serving the population of 36 million. This is in contrast to mobile money services, which, in just four years, have developed a network of over 15,000 unique agent locations, which are the points of access for mobile money clients to withdraw or deposit cash into their mobile wallets [12]. Due to this expansive nationwide network, there is clearly an opportunity to leverage mobile money Transfer services as a strong channel to offer financial services to a larger number of people, especially the poor.

3. THEORETICAL BACKGROUND

Although the theoretical and empirical literature on mobile money is growing in recent times, evidence of the Individual willingness to adoption and use mobile money transfer services as a dematerialized store of value to replace pre-existing, long-standing banking systems remains scarce [13]. However, various theories have been proposed in the last couple decades to examine factors underlying adoption or intention to use a new technology. Notable among such theories are [21]: Unified Theory of Acceptance and Use of Technology Model (UTAUT).

3.1 UNIFIED THEORY OF AND USE OF TECHNOLOGY MODEL (UTAUT)

The UTAUT model which aims to explain technology acceptance, is based on eight technology acceptance theories or models. In particular, the UTAUT draws on the Theory of Reasoned Action (TRA), the Technology Acceptance Model (TAM), the Motivational Model, the Theory of Planned Behavior (TPB), the combined TAM and TPB, the model of Personal Computer Utilization, the Innovation Diffusion Theory and the Social Cognitive Theory [21]. At the core, the UTAUT model uses behavioral intention as a predictor of the technology use behavior. The included predictors of behavioral intention are based on the components the eight technology adoption models reviewed.

In the UTAUT model, performance expectancy, effort expectancy, and social factors have direct effects on behavioral intention, which along with facilitating conditions have direct effects on use behavior. The effects of interactions of each of performance expectancy, effort expectancy and social factors with each of age and gender; interactions of experience with each of effort expectancy and social factors; and an interaction of voluntariness of use and social factors on behavioral intention are also included. Finally, there are effects of interactions of age and facilitating conditions and experience and facilitating conditions on use behavior [21].

4. RESEARCH MODEL AND HYPOTHESES

The model adopted for this particular research was the UTAUT model of [21] that was, modified to suit within the context of developing countries like Uganda where the study was carried out. This came up after a broad study and thorough review of literature and discussions with subscribers of MMTs in Uganda, it was discovered that the UTAUT Model is inflexible in that theCultural context in western countries where the model was

first applied differ greatly from those of in developing and less developed countries like uganda. The UTAUT Model needed to be modified before it would be be applied. Zhou et al. [22] indicates that the four mediating factors in Vankatesh's original UTAUT Model that is gender,experience,volutariness and age cannot be applied as they are,in different cultural context. This is because, as [24] indicates the higher the social-economic status of user, the faster the adoption of a technology. In Africa however most users have a low economic status and such factors may not be relevant to analysing their uptake of a technology. Facilitating conditions have been removed in this study because according to [21] these facilitating conditions do not predict behavioural intention to adopt and use a technology [15].
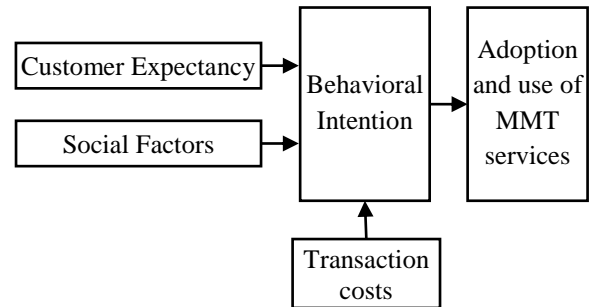

Fig.1. Conceptual Model for Customer expectancy, Social factors, Transaction cost and Behavioral Intention to Adoption and Use Mobile money Transfer Service (MMT) in Uganda
Source: Model developed as a modification of the UTAUT Model by [21] and a review of literature by [19][15]

4.1 DESCRIPTION OF THEORETICAL MODEL

This section is an explanation of the theoretical (conceptual) model that has been adapted from Unified Theory of Acceptance and Use of Technology Model (UTAUT) [21], plus the theories of expectancy [16] and the technology diffusion theory [18].

4.1.1 Customer Expectancy and Behavioral Intention:

The traditional expectancy theory of [16] was adopted by [25] and applied it to customer behavior in the market place, which later came up with a Customer Expectancy Model. According to [25], the Customer Expectancy theory suggests that consumer behavioral intention to adapt and use modern technologies, for instance MMTs are strongly determined by what people expect to gain after adoption and use. This intention to use will be motivated by their cognizant prospects of what will happen if they do, and are more creative when they believe their prospects will be realized. It is therefore hypothesized that:

H_1: There is a significant positive relationship between Customer Expectancy and behavioral intention to adopt and use mobile money services in Uganda

4.1.2 Social Factors and Behavioral Intention:

Social factors according to [26], comfortable are hypothetical to have strong connection to behavioral intention to use a service, as this is believed to influence people to choose and carry out a behavior even if they do not feel about it. This is especially true if there are some important referent individuals that perform the behavior, and in essence, act as opinion leaders [18], who encourage others to adopt the technology. For this study, it is therefore hypothesized that:

H_2: There is a siginficant positive relationship between Social factors and behavoiural intention to adopt and use MMTs.

4.1.3 Transaction Costs and Behavioral Intention:

Transaction costs (TC) includes transaction price, registration fee, or cost of a new device if one is needed to use the service. [17] posits that transaction costs such as procedural, withdrawal and deposit costs have an influence on consumer Behavioral intention to adopt and use of mobile money transfer services. They influence the decision whether an individual will use Mobile Money or not. In the conceptual framework therefore, a strong predictive potential is presupposed between Customer Expectancy and Behavioral Intention to Use Mobile Money [16][25]; Social Factors and Transaction costs are also conceptualized to have strong linkages with Behavioral Intention to Use Mobile Money [26]. The Behavioral Intention to use Mobile Money will thereafter lead to actual Customer adoption of the service [21]. The identified factors were deemed to have an influence on consumers' adoption and Use of MMTs in Kampala capital city and the neighbouring villages of Wakiso District. Therefore, it is hypothesized that:

H_3: There is a significant positive relationship between transaction costs and behavioral intention to use and adopt mobile money transfer services in Uganda.

5. RESEARCH METHODOLOGY

To ensure achievement of the research objectives, a review of prior research studies was conducted. The constructs used to develop the questionnaire were extracted from related research studies on mobile banking, mobile payment, electronic banking and ecommerce. There has been a diversification of feelings as far as the adoption and use of mobile money transfer services in Uganda, thus the researchers used the UTAUT model assumptions in developing data collection instruments. A survey was conducted in Kampala capital city and neighbouring villages of Wakiso District. The survey questionnaire comprised of questions soliciting for information on the consumers' awareness and usage of mobile money transfer services, factors influencing their adoption decision with particular reference to user determinant factors used with adjustment to suit the Ugandan market. Customer expectancy, Social Factors and Transaction cost, were the major factors identified from a review of literature and subsequently used to determine how they influence adoption and use of mobile money transfer services measured against behavioral intention and user acceptance of MMTs.

A sample of 380 (*n*=380) MMT customers was used for the survey with only 300 successfully completing giving a 78.9% response rate which is regarded satisfactory for subsequent data analysis. Over and above the cost considerations and desire for relative objectivity, decisions on the sample size (*n*=380) were made in line with similar research studies which had sample sizes ranging between 100 and 2100. Convenient and purposive sampling techniques were used to select respondents. The SPSS version 16.0 was used to analyse quantitative data, and compute linear regression analysis for hypothesis testing. Prior to analysis, reliability and validity of data was tested using the Cronbach's Alpha test which for all the determinant factors was above 0.6 which is considered valid and reliable for discussion

and analysis. Pre-testing of the questionnaire was done in consultations with senior researchers in Uganda to cross-check on all questions. Questionnaire administration was done with the help of an assistant in gathering information from MMT customers in high density suburbs and shopping malls of Kampala capital city and the neighboring villages of Wakiso District.

6. RESEARCH FINDINGS

The findings relating to the study, including descriptive statistics, correlation ad regression models are presented in this section:

The demographic characteristics of respondents that were assessed are; gender, marital status, education level, age (years), frequency of using MMT services and the period of using MM transfer services. Respondents were equally represented in terms of gender with males taking 50 percent with the rest being female. With regard to marital status, majority of the respondents were single (66.0%),this was followed by those married (27.7%) with those divorced and cohabiting being the least at 1.7 percent and 4.7 percent respectively. For the case of education level, a good number of respondents had attained a bachelors level (48%) followed by those with certificates (23.7%) with no major variation with regard to other education level categories. With regard to age (years), slightly more than a half (53%) were aged 18-25 years with the rest belonging to other age groups and majority had used MMT services for more than one year (74%).

6.1 HYPOTHESES TESTING OF RESULTS

Hypotheses statements were formulated based on constructs derived from the UTAUT model. Therefore, to test the hypothesis statement, the multiple linear regression and correlation analysis was adopted for each construct. Mobile money adoption and use and in some cases behavioral intention was considered the dependent variable while Customer expectancy, Social Factors and Transaction cost were considered as independent.

6.1.1 Correlation Results for Mobile Money Adoption:

There was a significant positive relationship between Customer Expectancy and behavioral intention to adopt and use mobile money services in Uganda ($r = .431^{**}$, $p<0.01$) and (Beta = .314, Sig<0.01). This implied that customer expectancy influenced behavioral intention to adopt and use mobile money services in Uganda.

There was a significant positive relationship between social factors and behavioral intention to adopt and use mobile money services in Uganda ($r = .408^{**}$, $p<0.01$) and (Beta = 0.289, Sig<0.01). This implies that social factors influenced behavioral intention to adopt and use mobile money services in Uganda.

There was significant positive relationship between transaction costs and behavioral intention to use and adoption of mobile money services in Uganda. ($r=.287^{**}$, $p<0.01$) and (Beta = .149, Sig<0.01). This implies that transaction costs influenced behavioral intention to use and adoption of mobile money services in Uganda.

There was significant positive relationship between behavioral intention to use and adoption of mobile money services

in Uganda ($r = .672^{**}$, $p < 0.01$) and (Beta = .656, Sig<0.01). This implies that behavioral intention influenced and predicted 42.2% of Adoption and use of mobile money transfer services in Uganda as shown in Table.1, Table.2 and Table.3.

Table.1. Correlation Results for the study

	1	2	3	4	5
Customer expectancy(1)	1				
Social factors(2)	.273**	1			
Transaction cost(3)	.249**	.216**	1		
Behavioral intention(4)	.431**	.408**	.287**	1	
Mobile money adoption(5)	.449**	.375**	.299**	.672**	1

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

Table.2. Regression Results for Behavioral Intention

		B	**SE**	**Beta**	**T**	**Sig**
2	(Constant)	1.283	.255		5.025	.000
	Gender Dummy	-.069	.065	-.046	-1.056	.292
	Single dummy	.011	.153	.007	.071	.943
	Married dummy	.067	.161	.041	.418	.676
	Divorced dummy	-.288	.289	-.050	-.998	.319
	Education dummy	.158	.067	.103	2.367	.019
	Age dummy	-.231	.110	-.104	-2.101	.036
	Behavioral intention	.719	.047	.656	15.377	.000
Dependent Variable: Mobile money adoption						

Table.3. Coefficients

Model	R Square	Adjusted R Square	R Square Change	Sig. F Change
1	.056	.037	.056	.009
2	.479	.466	.422	.000

7. DISCUSSION OF RESULTS

The study was conducted to find out whether customer expectancy, Social Factors and Transaction costs can determine the Consumer's Behavioral Intention or Attitude towards Mobile Money Adoption and Use in Uganda.

7.1 CUSTOMER EXPECTANCY

With regards to customer expectance, respondents were asked to express the extent to which they agree or disagree with a set of questions with constructs extracted from the UTAUT model. Multiple regression analyses were run to test the hypothesis statement (H$_1$). There is a significant positive relationship between Customer Expectancy and behavioral intention to adopt and use mobile money services in Uganda and the results are shown in Table.4.

Table.4. Regression results for Mobile Money Adoption and Use

Model	R Square	Adjusted R Square	R Square Change	Sig. F Change
1	.020	.000	.020	.427
2	.200	.181	.180	.000
3	.287	.267	.087	.000
4	.307	.285	.020	.004

Table.5. Co-efficients[a]

		B	**Std. Error**	**Beta**	**T**	**Sig**
4	(Constant)	1.542	.290		5.319	.000
	Gender Dummy	-.068	.069	-.050	-.979	.328
	Single dummy	.202	.163	.141	1.243	.215
	Married dummy	.242	.171	.160	1.419	.157
	Divorced dummy	.166	.307	.031	.541	.589
	Education dummy	.075	.072	.054	1.049	.295
	Age dummy	.048	.116	.024	.412	.680
	Customer expectancy	.285	.048	.314	5.921	.000
	Social factors	.220	.040	.289	5.504	.000
	Transaction cost	.092	.032	.149	2.892	.004
[a]Dependent Variable: Behavioral intention						

It can thus be deduced that customer expectancy is related to behavioral intention ($\beta = .314$, $p = .000$) and predicts 18% of behavioral intention. This is confirmed by the low significance values of 0.000; which indicate that customer expectancy and behavioral intentions are related. Therefore, we accept the hypothesis statement (H$_1$) There is a significant positive relationship between customer expectancy and behavioral intention to adopt and use mobile money services in Uganda. Results in Table.4 confirms prior research findings which have concluded that customer expectancy is a key determinant to consumer behavioral intentions and this will therefore increase their loyalty to the system [20]. Therefore in order to avoid issues of dormant system, the services should be accessible on mobile phones with the most basic features and software. Transactions should be easily conducted on available mobile phones; the systems should be easy to use as this saves time in carrying out a transaction

7.2 SOCIAL FACTOR

With regards to Social factors, respondents were asked to express the extent to which they agree or disagree with a set of questions with constructs extracted from the UTAUT model. Multiple regression analyses were run to test the hypothesis statement (H$_2$) A siginficant positive relationship exists between Social factors and behavoiural intention to adopt and use MMTs ($\beta = .289$, $p = .000$) and social factors predict 8.7% of behavioral intention as shown in Table.4 and Table.5.

The results show a greater connection between social factors and behavioral intention to adoption and use of MMTs with

significance of (0.000) in line with the Hypothesis (H₂): A significant positive relationship between social factors and behavioral intention to adopt and use mobile money services in Uganda exists. This is in agreement with several findings of [26], which asserts that social factors can positively influence a customer's behavioral intention to adopt and use a technology.

7.3 TRANSACTION COSTS

With regards to Transaction costs, respondents were asked to express the extent to which they agree or disagree with a set of questions with constructs extracted from the UTAUT model. Multiple regression analyses were run to test the hypothesis statement (H₃). There is a significant positive relationship between transaction costs and behavioral intention to use and adopt mobile money transfer services in Uganda. The results are shown in Table.4 and Table.5.

The regression results on Transaction cost variables confirm that there is significant relationship between Transaction cost and Behavioral intention to adoption and Use of MMT services with ($\beta = .149$, $p<0.01$). Transaction cost predicts 2% of behavioral intention. This show that hypothesis H₃ which states that "There is a positive relationship between transaction costs and behavioral intention to use and adopt mobile money services in Uganda". The results are also in agreement with studies of [23], who asserts that transaction costs such as procedural, withdrawal and deposit costs have a significant influence on consumer Behavioral intention to adopt and Use mobile money service, Therefore findings of this study suggest that whereas transaction costs such as withdraw, deposit charges should be relatively low, they do not necessarily affect adoption and use of MMT services.

The study provides some insights into the Mobile Money users in Uganda and the behavioral intention or the willingness of MMT users to adopt and use MMT platform. More specifically, the study investigates factors that determine one's intention to adopt and use mobile money transfer services among the rural people in Uganda, and applying Unified Theory of Acceptance and Use of Technology Model (UTAUT), The study reports a variety of interesting findings as follows:

From a customer's point of view, the findings of this study reveal that customer expectations before consumption of a particular technology play an important role in the decision process to adopt and Use MMT Services. The findings also disclose that social factors are important players and affect the user's intentions to adopt and use Mobile Money Transfer technology. Contrary of what the UTAUT model postulates, transaction costs like withdrawal charges, Subscription fees and Deposit charges were found to be insignificant in influencing user attitudes toward using the MMT technology. This last finding could have come as result of a number of factors, for instance; the necessity of MMT transactions among users in Uganda. MMT has increasingly become an important tool of financial inclusion and financial intermediation, to the extent that costs incurred by subscribers in these transactions do not necessarily determine whether or not they adopt and use this service.

Generally, among the Mobile Money Users in Uganda, we found Customer Expectancy and Social factors to be statistically significant in influencing the behavioral intention of MMT Service Adoption and Use and Transaction cost not being significant in adoption and use of MMTs. These findings have

important implications for MMT Services uptake and the modernization of the Mobile Technology operations in rural Uganda. While MMT Service uptake remains significantly low, these findings suggest that the way to increase their uptake is to create more awareness, embark on financial literacy programs, and reduce the mistrust and perception of risk of the entire MMT Service platform.

8. CONCLUSION AND RECOMENDATION

The study found that customer expectancy, social factors, transaction costs are predictors or determinants of behavioral intention to use, and behavioral intention is a predictor of adoption of mobile money services in Uganda. Mobile Money Transfer service providers to encourage faster rates of adoption on their services among users, it is necessary to embark on promotional campaigns that specifically target consumer behavior, as this would encourage individual adoption and actual usage of MMT services among customers. Significant strides can be made in the mobile commerce sector if these variables are closely utilized and manipulated by industry players and stakeholders in order to realize full adoption of mobile money transfer services. Adopting such a systematic model to influencing user behavior would in turn help players in the MMT sector accelerate the rate of adoption of MMT services and technologies in the country.

9. RECOMMENDATIONS FOR FUTURE RESEARCH

Future studies should be carried out on more experienced MMT users. Conducting the same study on various groups of experienced participants in an MMT services field, like telecommunication operators, project managers would further strengthen the results of this study. Secondly, as Mobile Money Transfer services technology is still in its early stages, this study was incapable of measuring the genuine perception toward this technology. Currently, few applications of MMT are available. In the future, as the number of users grows, more reliable data can be gathered from a larger pool of participants. In that way, a more comprehensive exploration of MMT adoption and use intentions can be conducted. Finally, a universal study on adoption and use intentions of MMT services technology should be extended to definite businesses like financial institutions, schools and information services, since factors crucial for one business may be different for another. A comparison can then be made between individual businesses in terms of business specific factors influencing adoption and use decisions of MMT in Uganda. In final analysis, there is still room for further investigation into the process of adoption of MMT services in Africa

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