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FACTORS AFFECTING THE ADOPTION OF MOBILE BANKING IN KENYA

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ABSTRACT

Mobile banking is one innovation which has progressively rendered itself in pervasive ways cutting across numerous sectors of economy and industry. An appropriate banking environment is considered a key pillar as well as an enabler of economic growth. The aim of the study was to investigate the factors affecting the adoption of mobile banking in Kenya. The study specifically tried to ascertain how consumer attitude affect the adoption of mobile banking; To assess how initial trust affect the adoption of mobile banking; To establish how system usability affect the adoption of mobile banking and lastly to find out how trust propensity affect the adoption of mobile banking. To achieve the objectives the study will use a descriptive research design. The study was carried out at the following selected banks namely Equity Bank Limited, National bank of Kenya, Kenya Commercial Bank Limited, Barclays Bank of Kenya Limited and Co-Operative Bank of Kenya ltd. A semi-structured questionnaire was used for primary data collection. Data collected was analyzed by use of descriptive analysis technique with the use of SPSS and presented using tables and charts, percentages, tabulations, means and other measures of central tendencies. The results indicated that consumer attitude, initial trust, system usability and trust propensity predicts the usage intention of mobile banking. The sample was mainly composed of users having rich mobile Internet experience, which may affect their trust in mobile banking. Future research needs to generalize these results to other samples, such as those users without much mobile Internet experience.

Keywords: System Usability, Trust Propensity, Consumer Attitude and Initial Trust

1.0 INTRODUCTION

Improving access to financial services, such as savings, deposits, insurance and remittances, is vital to reducing poverty. Savings can help poor people to invest in productive assets like livestock, a loan may help to expand business activities, and insurance can provide income for a family if a breadwinner becomes sick. In many developing countries, however, 9 out of 10 people do not have a bank account or access to basic financial services. Poor people are often not considered viable customers by the formal financial sector as their transaction sizes are small, and many live in remote areas beyond the reach of banks branch networks (Sathye, 1999).

Informal banking services such as microfinance and village savings and loan associations remain limited in their reach. In order for banks to view the poor as viable customers, new ways of serving them profitably need to be explored. Extending branch networks is often too expensive, but the development of appropriate technologies can provide one answer to this problem. Offering banking products through mobile phones is one option that offers great potential for

reaching poor people: Many poor people already have access to mobile phones. A positive aspect of mobile phones is that mobile networks can reach remote areas at low cost.

A. Statement of the Problem

Mobile banking is one innovation which has progressively rendered itself in pervasive ways cutting across numerous sectors of economy and industry. An appropriate banking environment is considered a key pillar as well as an enabler of economic growth (Garbarino & Strahilevitz, (2004). With the continuously emerging wave of information driven economy, the banking industry in Kenya has inevitably found itself unable to resist technological indulgence. The need for convenient ways of accessing financial resources beyond the conventional norms has seen the recurrent expansion and modernization of banking patterns. And given the huge demand for finance oriented services, institutions beside the historical banks have joined the fray in an attempt to grab a piece of the perceived cake of opportunity within the banking industry. Kenya's mobile phone banking market is at its infancy and not fully developed akin to many African counties that have adopted the service. Most of the existing studies in electronic banking services or e-banking delivery of financial services have adopted an original perspective or a distribution channel perspective (Huili & Chunfang, 2011).

Locally, studies that have carried out include potential for adaptation of E-commerce by tour operators in Nairobi, technical and security aspects of M-banking. This leaves mobile banking providers' challenges to mobile phone banking in Kenya an unexplored territory. The unprecedented uptake of mobile phone banking services in Kenya is a testament to this fact. While there has been an increasing body of literature examining the potential socio-economic impact of m-banking in developing markets. It is therefore against this background that this study embarks to determine the factors affecting the adoption of mobile Banking in the banking sector in Kenya. The main objective of this study was to investigate the factors affecting the adoption of mobile banking in Kenya. Specifically the study sought to achieve the following objectives:

i. To ascertain how consumer attitude affect the adoption of mobile banking.
ii. To assess how initial trust affect the adoption of mobile banking.
iii. To establish how system usability affect the adoption of mobile banking.

iv. To find out how trust propensity affect the adoption of mobile banking.

2.0 LITERATURE REVIEW

A. Theoretical Review

This study was founded on the theory of Reasoned Actions (TRA). The theory originates from social psychology, and it is a special case of the Theory of Planned Behavior (TPB) (Amin, Hamid & Anis, 2008). Fishbein and Ajzen (1975) developed TRA to define the links between the beliefs, attitudes, norms, intentions, and behaviors of individuals. The theory assumes that a person's behavior is determined by the person's behavioral intention to perform it, and the intention itself is determined by the person's attitudes and his or her subjective norms towards the behavior. The subjective norm refers to "the person's perception that most people who are important to him think he should or should not perform the behavior in question". Ajzen and Fishbein's (1980) book is focused on the prediction and understanding of human behavior to help in solving applied problems and making policy decisions. This theory is relevant to this study since consumer attitude determines his/her intention to use mobile banking which is the focus of the current study.

B. Conceptual Framework

Brown, Zaheeda and Stroebel (2003) define a conceptual framework as a set of broad ideas and principles taken from relevant fields of enquiry and which are used to structure a subsequent presentation.

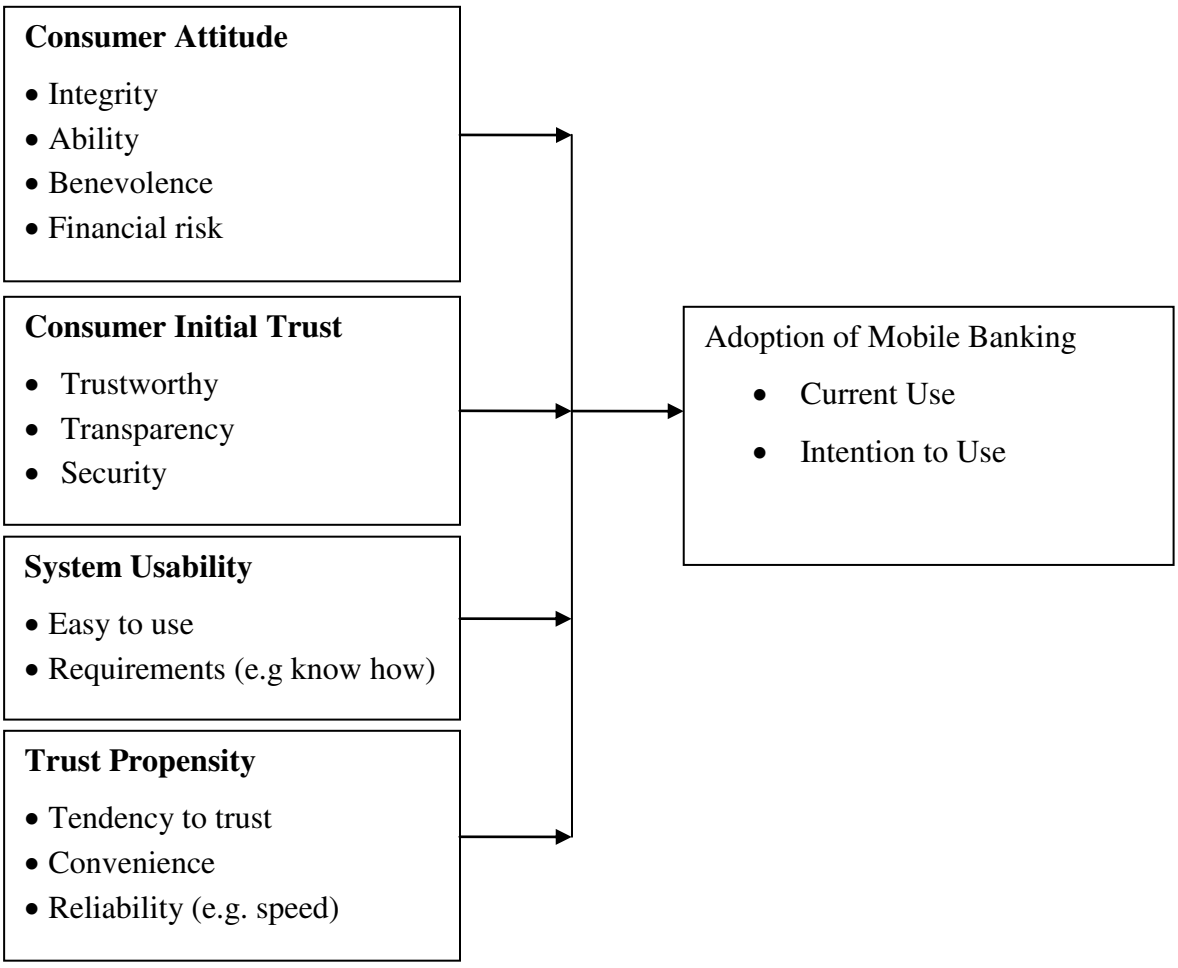

Figure 1: Conceptual Framework

1. Consumer Attitude and Mobile Banking

Research on consumer attitude and adoption of electronic banking showed there are several factors predetermining a consumer's attitude towards mobile banking such as a person's demographic, motivation and behaviour towards different banking technologies and individual acceptance of new technology. Similarly, it has been found that attitudes towards electronic banking and actual behaviors were both influenced by prior experience of computers and new technology and, other possible factors discussed below.

With regard to demographics factor, Lee, et al., (2009) revealed that younger consumers value the convenience or time saving potential of online and mobile banking more than older

consumers. Younger consumers also regarded the lack of face-to-face contact as less important than older consumers. These authors further found the educational levels of respondents did not affect the use of telephone or online banking. With regard to new technology acceptance, the literature points out that unless, the specific need of a consumer is fulfilled, consumers may not be prepared to change from present familiar ways of operating (lee et al., 2003).

2. Initial Trust

Due to the great uncertainty and risk involved in online transactions, trust has received considerable attention in the electronic commerce context. Trust has been found to affect user adoption of various services, such as online news services, Internet banking (Natarajan, et al., 2010), health web sites, and mobile shopping. Trust includes initial trust and continuance trust. As the first stage of trust development, initial trust is significant for user behavior and various factors have been identified to affect initial trust. The first category of factors is associated with website. Due to the lack of previous experience, users will rely on their perception of website quality to build initial trust (Park, Yang & Lehto, 2007). In addition, information quality has been found to affect initial trust in health info-mediaries (puchel, 2010).

3. System Usability

Complexity is defined as the degree to which an innovation is perceived to easy to understand and use. Adoption will be less likely if the innovation is perceived as being complex or difficult to use (Rogers, 1983). System usability can be considered as the exact opposite of ease of use in the Technology Acceptance model, which has been found to directly impact the adoption of the Internet (Sathye, 1999).

Consumers will reject an innovation if it is very complex and not user friendly. In this context, Cruz, Neto, Munoz-Gallego and Laukkanen (2010) report ease of use of innovative products or services as one of the three important characteristics for adoption from the customer's perspective. For example, the user-friendliness of domain names, navigation tools and the graphical user interface are important determinants of the user-friendliness of a web page design.

4. Trust propensity

Trust propensity reflects a user’s natural tendency to trust other people (McKnight et al., 2002). Those users with high trust propensity tend to have positive attitudes towards new technologies.

Thus they will more readily build trust in mobile banking. In contrast, those users with low trust propensity may doubt the credibility of mobile banking, which represents an emerging service.

3.0 RESEARCH METHODOLOGY

A. Research Design

The study employed a descriptive case study research design because the main aim of the study was intended on collecting quantitative and qualitative data for in-depth analysis of the factors affecting the adoption of mobile banking in Kenya. Descriptive research is study of status, it's based on premise that problems can be solved and practices improved through observation, analysis and description.

B. Target Population

A population is defined as a complete set of individuals, cases or objects with some common observable characteristics (Suoranta & Mattila, 2004). The target population in this study comprised of the 17.5 million customers from the selected banks namely Equity Bank Limited, National bank of Kenya Limited, Kenya Commercial Bank Limited, Barclays Bank of Kenya Limited and the Co-Operative Bank of Kenya Limited.

Table 1: Target Population

Bank	Number of customers in millions	Percentage
Equity Bank ltd	7.3	41.71
National bank of Kenya Ltd	2.0	11.43
Kenya Commercial Bank Ltd	2.8	16.00
Barclays Bank of Kenya Ltd	3.2	18.29
Co-Operative Bank of Kenya Ltd	2.2	12.57
Total	**17.5**	**100.00**

Convenience sampling was used to select the sample size of the respondents who participated in the study. Due to time and costs constraints, the sample size was fixed to 40 customers from each bank under study. In convenience sampling, each item or element of the population has an equal chance of being chosen at each draw (Dasgupta, Paul & Fuloria, 2011). The study collected

primary data. The primary data was collected using semi-structured questionnaires which were issued to respondents.

Data collected was purely quantitative and it was analyzed by descriptive analysis techniques. The descriptive statistical tool such as SPPS was used to help the researcher to describe the data and present using tables and charts, percentages, tabulations, means and other central tendencies. The regression analysis model that adopted in this study is as shown below:

$Ys = B_0 + B_{1X1} + B_{2X2} + B_{3X3} + B_{4X4} + \varepsilon$ Where,

$B_1 \ldots B_4$ = regression coefficient of four variables; Ys = adoption of mobile banking; B_0 = constant (coefficient of intercept) X_1 = Consumer attitude; X_2 = Initial trust; X_3 = System usability, X4 = Trust propensity and ε is the error term.

4.0 DATA ANALYSIS AND FINDINGS

From the data collected, out of the 200 questionnaires administered, 153 were filled and returned. This represented 76.5% response rate, which is considered satisfactory to make conclusion for the study. This corroborates Bailey (2000) assertion that a response rate greater than 70% is very good. This implies that based on this assertion; the response rate in this case of 75% is very good.

A. Reliability Analysis Results

Cronbach alpha was calculated using SPSS. The value of the alpha coefficient ranges from 0 to 1 and may be used to describe the reliability of factors extracted from dichotomous (that is questions with two answers) and /or multi-point formatted questionnaires or scales (i.e., rating scale: 1=poor, 5= excellent). A higher value shows a more reliable generated scale. Cooper and Schindler (2008) indicated 0.7 to be an applicable reliability coefficient. Since the alpha coefficients were all greater than 0.7, a conclusion was drawn that the instruments had an acceptance reliability coefficient and were appropriate for the study.

Table 2: Reliability of Research Instruments

Variable	Cronbach's alpha	No of items
i. System usability	0.7221	4

ii.	Initial Trust	0.7145	4
iii.	Trust Propensity	0.7021	4
iv.	Customers attitude	0.7123	3

B. Demographical Characteristics of the Customers

The highest percentage of respondents were between the ages of 25 and 35 years (37%), the second largest age group was between 35 and 50 years (35%), the third largest group was between 16 and 24 years (23%), and the last group was over 50 years (5%). The average age was 33 years, while the standard deviation of the age distribution was 9.5.

The study sought to establish the gender of the respondents who participated in the study. Form the findings, a fairly even split between male and female respondents, with females showing a slightly dominant percentage (54%). One possible explanation for more female respondents could be that females are more likely to be interested in the usage and adoption of technology such as mobile phones; for example Singh (2004） found that more females used mobile banking than males. The majority of the respondents (71.2%) had some high school education. The study finding implies that respondents who have attained high school education are the dominant group.

Table 3: Respondent's Education level

Category	No. of response	Percentage
No formal education or some primary school	4	2.3
Primary school completed	17	11.0
high school	109	71.2
Technical or apprenticeship	7	4.9
College/University	16	10.6
Total	**153**	**100.0**

The study sought to find out the respondents occupation, from the findings the occupation distribution of the respondents defers from one another. Table 3 reflect that the highest respondent is the office worker with 73.3% (112) respondents followed by the students with 15.6% (24) of respondents, 11.1% (17) are office worker and other is 0%. Table 4 and 5 depicts the occupation distribution of the two different groups. As shown in table 4, the users 35.6% (55) are less than the non-users with 64.4% (98).

The study compared the distribution of the users and non users of mobile banking on the basis of the respondents' occupation. From the findings, the majority of the respondents were the office workers 73.3% (112) compare to other group in the category. The numbers of office worker who are users 68.8% (38) is low when compared to the numbers of office worker who are non-users 76% (74). The students have a very few respondents when compared to the office workers in the group. The numbers of respondents of students who are users 18.8% (10) are less than the numbers of non-users 14% (13).

The study shows that students constituted more respondents after office worker though this is very low. The evidence shows that much attention has not been given to educational institutions. Students have not been targeted in particular. There are opportunities of having an improved numbers of students as predicted by Amin et al (2006). The business persons both users (7, 12.5%) and non-users (9, 10%) show low indication of respondents and its evidence that, their flexible schedule and other factors might be responsible for this category of people not showing much interest in mobile banking. The numbers of business person who are users are lower than the numbers of non-users.

Table 3: Occupation

Occupation	**Frequency**	**Percentage**
Student	24	15.6
Office worker (full time employed)	112	73.3
Business Persons	17	11.1
Others	0	0.0
Total	**153**	**100.0**

Table 4: Mobile banking users' occupation distribution

Occupation	**Frequency**	**Percentage**
Student	10	18.8
Office worker	38	68.8
Business Persons	7	12.5
Others	0	0.0
Total	**55**	**100.0**

Table 5: Mobile banking non-users' occupation distribution

Occupation	Frequency	Percentage
Student	13	14
Office worker	74	76
Business Persons	9	10
Others	0	0
Total	**98**	**100.0**

C. Findings

1. Effect of Consumer Attitude on the Adoption of Mobile Banking

The study revealed that attitude towards mobile banking service influence an individual's willingness to adopt mobile banking to a great extent. The study further showed that the current users of mobile banking felt that mobile banking service providers (both Banks and Mobile Network Providers) have the necessary ability (competence, knowledge and necessary information) to render the mobile banking service. This study finding implies that those customers with a positive attitude towards mobile banking are more likely to adopt mobile services technologies than those with a negative attitude.

The study also revealed that the respondents felt that mobile service providers are generally fair and honest when conducting mobile banking transactions. Also the study revealed that current users of mobile banking and those who are interested in using it in the future (58%) felt that mobile banking service providers are benevolent towards users of mobile banking. Majority of the respondents (76%) agreed that mobile banking service providers have benevolence (open, receptive, empathy and good-faith effort) towards the user. This finding implies that the respondents who currently use mobile banking and those who are interested in using mobile banking in the future will use mobile banking if the service providers are trustworthy.

2. Effect of initial trust on the adoption of mobile banking

The study revealed that trust in the services offered through mobile banking determines their willingness to use the services. Also the study showed that trust in mobile banking have influenced willingness to adopt mobile banking to a great extent, consistent with Trappey and Trappey's (2001) findings, consumers tend to have low confidence towards e-commerce and the

internet especially, in the area of personal financial management. The finding therefore reinforces the findings of the analysis that making a banking transaction on through mobile banking is a form of trusting behavior, since a consumer makes him/her vulnerable to the actions of the internet. The consumer is willing to be dependent upon the internet, based on the expectation that the internet will perform what the consumer expects it to do.

The study showed that security is a major concern wherever online transactions take place influence on mobile banking. This finding agrees with Foon and Fah (2011) finding that showed that trust affect user adoption of various services. The key requirements for secure financial transactions in electronic environment include confidentiality, data integrity, authentication, and non-repudiation. Other security factors important for consumer adoption are anonymity and privacy, which relate to use policies of customers' personal information and purchase records (Ketkar, Shankar & Banwet, 2012). The findings therefore reinforces the findings of the analysis that lack of consumer perceived security and trust in vendors and payment systems are one of the main barriers to electronic and mobile commerce transactions in a mobile environment.

3. Effect of System Usability on the Adoption of Mobile Banking

The study showed that applicability of the mobile banking features determines willingness to use the services. Laforet and Li (2005) confirmed that ease of use is a determinant of the adoption of mobile banking. The functionality of the mobile phone, screen size and type of keypad (keyboard) can be considered to be contributing factors to ease of use (Kim et al., 2009). The study infers that the use of mobile phones with small keypads for mobile banking can lead to typing errors during transactions, affecting the ease of use. Small screens on a mobile phone can inhibit viewing of all information, and may also contribute to the use of relatively small font which might be uncomfortable for some users.

4. Effect of Trust Propensity on the Adoption of Mobile Banking

The study found that trust propensity affects mobile banking adoption. This finding resonates with (McKnight et al., 2002) observation that trust propensity reflects a user's natural tendency to trust other people). Those users with high trust propensity tend to have positive attitudes towards new technologies. Thus they will more readily build trust in mobile banking. In contrast,

those users with low trust propensity may doubt the credibility of mobile banking, which represents an emerging service.

5. Adoption of Mobile Banking

The study revealed that that approximately 30% of the respondents used mobile banking services with 58% currently not using the mobile banking service, but interested. The remaining 12% of the respondents indicated no interest in using mobile banking services. Also the study found that about 96% of the respondents who currently use mobile banking have bank accounts. It is interesting to note that about 4% of the respondents who currently are not using mobile banking do not have bank accounts; they currently use mobile banking for money transfers.

Approximately 63% and 77% of the respondents, who indicated an interest in using mobile banking in the future, were in possession of bank account and mobile phone respectively. The remaining 37% and 23% of respondents did not have a bank account and mobile phone respectively; this is a potential opportunity for both the banks and mobile network providers to provide access to bank account and mobile phone services. Of the respondents who indicated no interest in the use of mobile banking in the future, 39% and 16% of respondents did not have a bank account and mobile phone respectively. This may be a contributing factor to the lack of interest. The majority of the respondents with a bank account (51%) and without a bank account (78%) who are currently not using mobile banking indicated an interest in using mobile banking in the future. About 10% and 18% of respondents with a bank account and without a bank account respectively, indicated no interest in using mobile banking in the future.

D. Regression Analysis

In addition, the researcher conducted a multiple regression analysis so as to determine the factors affecting the adoption of mobile banking in Kenya. The researcher applied the statistical package for social sciences (SPSS) to code, enter and compute the measurements of the multiple regressions for the study.

Table 9: Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.851(a)	.724	.676	.77048

a Predictors: (Constant), initial trust, consumer attitude, system usability and trust propensity

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (usage of mobile banking) that is explained by all the independent variables (initial trust, consumer attitude, system usability and trust propensity). The correlation and the coefficient of determination of the dependent variables when all independent variables are combined can also be measured and tested as in the table below. From the findings 67.6% of the usage of mobile banking is attributed to combination of the independent factors that relate to (initial trust, consumer attitude and system usability, and trust propensity) investigated in this study. A further 32.4% is attributed to other factors not investigated in this study.

Table 10: ANOVA[b]

	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Regression	99.775	3	9.974	9.186	.031(a)
Residual	33.654	149	.594		
Total	**133.429**	**152**			

The obtained F value of is 9.186 and Pr is <0.05 (Table 10). This means that there is a significant difference between the Means at 5% level. This implies that there is a main effect for independent variables for the adoption of mobile banking. The significance value is .031 which is less that 0.05 thus the model is statistically significant in predicting independent variables (initial trust, consumer attitude, system usability and trust propensity) this shows that the overall model was significant.

Coefficient of Determination

The study conducted a multiple regression analysis and from the above regression model, holding (initial trust, consumer attitude, system usability and trust propensity) constant at zero, mobile banking usage will be 1.147. A one percent (1%) change in initial trust will lead to zero point four eight eight percent (0.488%) variation in the usage of mobile banking in Kenya; also a one percent (1%) change in consumer attitude will lead to zero point three eight four percent (0.384%) variation. Further, a one percent (1%) change in system usability will lead to zero point one two two one percent (0.221%) variation and lastly a one percent (1%) change in trust system usability will lead to zero point two six nine percent (0.269%) variation in mobile banking usage. This shows that there is a positive relationship between the independent variables (initial trust, consumer attitude, system usability and trust propensity) and mobile banking adoption.

Table 11: Regression Analysis Results

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.147	.393		2.915	.000
Initial trust	.488	.244	.663	1.999	.001
Consumer attitude	.384	.147	.397	2.608	.001
Trust propensity	.221	.110	.192	2.001	.003
System usability	.269	.128	.387	2.101	.002

a Dependent Variable: Mobile banking adoption

The Unstandardized beta coefficients column in Table 11 below were used to obtain the overall equation as suggested in the conceptual framework. When these beta coefficients are substituted in the equation, the model becomes:

$Y = 1.147 + 0.488X_1 + 0.384\ X_2 + 0.221\ X_3 + 0.269X_4 + \varepsilon$ where

Y = Usage of mobile banking, X1 = Initial trust, X2 = Consumer attitude, X3 = Trust propensity, and X4 = System usability.

The results also show the unique contribution to the explaining of the independent variable. The standardized coefficients assess the contribution of each independent variable towards the

prediction of the dependent variable, since they have been converted in the same scale to show comparison.

The result indicates that initial trust has the highest beta of 0.663 has the largest effect on the use of mobile banking. The second most important variable was customer attitude with a beta of 0.397. The third most important variable was system usability with a beta of 0.387. The least important predictor of these four variables was trust propensity with a beta of 0.192. The t-test statistic shows that all the B coefficients of (initial trust, consumer attitude, system usability and trust propensity) are significant (since $p<0.05$).

5.0 CONCLUSIONS

Mobile banking as an emerging service has not been widely adopted by users. Thus it is necessary to identify the factors affecting user adoption. Due to the high risk and low switching cost, building users' initial trust is critical for mobile banking service providers. The purpose of this research is to examine the factors affecting the usage of mobile banking. The study concludes that the most important factors in starting to use mobile banking are first and foremost better access to the services (convenience), better prices and a high-level of privacy. Therefore the adoption of mobile banking is likely to be increased when customers consider using mobile banking processes to be easy. An individual is far less likely to adopt a new technology if this requires a high level of technical skills.

The study also concludes that trust affect user adoption of various mobile banking services. This study concludes that lack of previous experience will make users rely on their perception of website quality to build initial trust.

The study further concludes that trust propensity reflects a user's natural tendency to trust other people. Those users with high trust propensity tend to have positive attitudes towards new technologies. Thus they will more readily build trust in mobile banking. In contrast, those users with low trust propensity may doubt the credibility of mobile banking, which represents an emerging service.

6.0 RECOMMENDATIONS

Due to the constraints of mobile terminals such as small screens and inconvenient input, mobile service providers need to present users with a well-designed interface, including clear layout, powerful navigation and prompt response. Otherwise, users may feel difficult to use mobile banking. This will significantly decrease their perceived usefulness. In addition, users often need to download, install and configure the relevant software according to their mobile phone type before they can use mobile banking for the first time. This process may be complex for initial users. Mobile service providers can provide online tutorial and help to users. This may improve their perceived ease of use of mobile banking.

Mobile banking based on wireless networks involves great uncertainty and risk. Thus users need to rely on structural assurances to ensure their payment security and build their trust in mobile banking. Mobile service providers can use advanced encryption technologies such as secured socket layer (SSL) and third-party certification to engender users' initial trust. Information quality reflects information accuracy, relevancy and timeliness. Quality information will signal service providers' trustworthiness.

On the other hand, if information quality is poor, users may feel that mobile service providers lack the ability and benevolence to provide quality services to them. This will decrease their trust. Mobile service providers can provide personalized information and services to users based on their account balance and payment records. This may help build users' trust.

Trust propensity also has a significant effect on the usage of mobile banking. Thus users with high trust propensity will more readily build initial trust in mobile banking. System quality has a relatively low effect on initial trust. Compared to information quality, system quality may be more easily improved with advanced technologies. Thus users mainly rely on information quality to build their trust in mobile banking.

Trust and privacy are important issues in mobile banking (Aggarwal et al., 2010). Clients are asked to trust technologies that may be new to them in order to conduct financial transactions of potentially scarce and hard-earned capital. For some at the BOP, the technologies themselves may be unfamiliar. For others, the technologies may be familiar, but the application of these

technologies for managing their money is unfamiliar. To promote trust in these technologies, financial education must emphasize that mobile banking can be cheaper, safer, and more convenient than traditional banking. The importance of privacy must also be sufficiently explained, specifically the purpose and usage of PINs.

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