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Culture, Adoption and Usage of Mobile Financial Services

Abduba Ibrahim Halkano
Ph.D. Candidate, School of Business, University of Nairobi, Kenya
Njihia M. James
Dean, School of Business, University of Nairobi, Kenya
Litondo Kate
Chairperson, School of Business, University of Nairobi, Kenya

Abstract:
The significant growth and spread of mobile financial services in the world has had the highest impact in the developing countries. The adoption and usage of mobile financial services among the poor are affected by various factors, one being cultural factors. Culture is defined as programing of the mind, this study adopted social influence and type of culture as indicators for cultural influence on adoption and usage. This study found that cultural factors influence the adoption of mobile financial services but do not influence the usage of mobile financial services. This finding can be attributed to the overwhelming need by the poor to employ mobile financial services. It is the only alternative to traditional financial services such as banks which does not extend to poor areas thus excluding them from participating in gainful financial activities as a result of access to financial services.

Keywords: *Mobile financial services, adoption, usage, culture and poor*

1. Introduction

The development of mobile telephone capacity to offer mobile financial services has greatly increased its adoption and usage Wamuyu (2014). In the past 20years the mobile phone has transformed from unknown device to an essential devices in everyone's life due to unprecedented adoption and usage by the people Keshav (2005). Kirui, Okello, Njiraini & Nyikal, (2013) observed that there is a significant growth in transaction volumes due to availability of capacity to access these services from any location, without the need to queue in the banking halls to perform financial transactions. Mobile financial services adoption and usage varies highly between countries and does not follow any universal logic or pattern Dholakia et al (2007). The cause of these differences can be attributed to mobile services providers' infrastructure, the m-commerce services offered, marketing strategies used and the culture of mobile commerce services consumers. These differences bring forth questions about the underlying factors that affect the adoption and usage of mobile financial services.

Financial exclusion has been a big impediment to economic growth of the poor, it makes the poor incapable of participation in gainful economic activities (Abduba, Njihia and Litondo, 2015). The exclusion of the poor could be attributed to the structural weakness in the financial industry that is not available in remote areas that are inhibited by the poor (Hughes and Lonie, 2007). The traditional financial service providers such as commercial banks are serving the poor due to the high cost of establishing a financial network, high capital investment to open branches in rural areas, the poor's small balance in saving accounts and small loans without collateral (Potnis, 2014). The expectation that mobile financial services can provide accessible and affordable financial services has attracted considerable attention to it and have caused huge excitement among the poor (Ivatury 2006). Morawczynski, (2008) observed that mobile financial services was designed to alleviate poverty by increasing access and bring economic advantages of providing people with small irregular or cyclical incomes with facility to save and transfer money(Pulver, 2009).

1.1. Culture

Culture is a complex and multifaceted construct, it is defined as the collective programming of the mind which uniquely identify one group and differentiate it from another (Hofstede, 1980). Hofstede (1980) found there are regional or national cultural groupings that affect the behavior of societies and the difference is persistent across time. Potnis (2014) asserts cultural differences and cultural practices leads to multiple interpretations, usage, and appropriations of ICT. It has been pointed out by Bertolotti (1984) that culture greatly affects the acceptance of technology through its belief and values leading to social influence where members who share the same culture can influence other members within that culture. Cultural difference presents cultural factors which affect the adoption of mobile financial services, the study indicators are social influence and type of culture.

Culture is described as values that are shared across people in a society and these underlying values influence individuals' attitudes and behaviors (Straub, Loch, Evaristo, Karahanna & Srite, 2002). Various empirical literature has identified cultural factors, Bertolotti (1984) pointed out that culture greatly affects the acceptance of technology through its belief and values, thus culture leads a social

influence where members who share the same culture can influence other members within that culture. Puschel et al. (2010), Riquelme and Rios (2010) indicated that subjective norm was a salient influence on adoption of mobile banking. Potnis (2014) in the study of pro-poor perspective identified social cultural practices influence the user behavior to adoption and usage of ICT. The cultural factors include pre-existing social cultural practices such as male dominated societies, women's tendency to avoid risk, type of culture (individualism vs collectivism) and expected roles to be carried out by men and women.

Adoption is dependent on the social-cultural influence of the poor if there exist a positive social influence and favorable cultural practices adoption could be higher as opposed to negative social-cultural influence on adoption. The dependency of adoption on social, and cultural influence makes the relationship between cultural factors and adoption important. This study adopted cultural factors to investigate the effects of cultural factors on the adoption of mobile financial services by poor. The cultural factor indicators such as social influence and types of culture would be used to measure the relationship between cultural factors and adoption accordingly posit this hypothesis.

- H1: There is a relationship between cultural factors and adoption of mobile financial services among the poor in Kenya. As well as the relationship between cultural factors and usage thus
- H2: that there exist a relationship between cultural factors and usage of mobile financial services among the poor in Kenya.

2. Research Methodology

2.1. Research Philosophy

The three main philosophical approaches that dominate information system research are the critical theory, interpretivism, and positivist approach. Orlikowski and Baroudi (1991) discuss critical realism as attempting to evaluate critically and transforming the social reality through the provision of an evaluative dimension. The interpretive approach has been described as the reality that is socially constructed to understand the inter-subjective meaning embedded in social life. Its main critic is it ignores possible conflict structures that can generate change.

Orlikowski and Baroudi (1991) state that the positivist approach believes in the existence of a physical and social world that is independent of human being. It assumes that knowledge, reality, and instruments are quantifiable, measurable and objective using properties which are independent of the researcher. Somasundaram and Karlsbjerg (2003) states that positivist approach is over simplification and abstraction of complex phenomena through few unilateral relationships. Despite the criticism, this approach has been widely used in the literature due to its strengths in offering explanations. This study adopted a positivist philosophy to answer the research questions and test the hypothesis statements backed by facts obtained from the primary data.

2.2. Research Design

Levin (2006) states the cross-sectional study is appropriate as it is robust to the effects of relationship studies that aims to establish the associations among variables and enhances the credence of results by providing a conclusion on data at a specific point in time. This study adopted a cross-sectional survey design. This design has been used in other studies such as Barnes and Corbitt (2003), and Baron, Patterson, and Harris (2006).

2.3. Population and Sampling

The target population of the study was the adult poor living in the slums of Nairobi. Nairobi County hosts Kenya's political, commercial and industrial capital and has an adult population of 2,042,769 (Census, 2009), with the percentage of the poor at 22% (Economic Survey, 2014), the calculated adult poor population is 449,409 and taking further consideration that the mobile penetration is 82.6% the calculated adult poor population with mobile phone access is 371,212. Using the Cochran's 1977 sample size formula, with a confidence level of 95% and confidence interval of 5 the sample size is 384 people and adding 16 for none response and heterogeneity the sample size is 400 people

The sampling method adopted by this study was stratified random sampling, Nairobi is stratified into nine sub-counties of Nairobi namely Starehe, Kamukunji, Kasarani, Makadara, Embakasi, Njiru, Dagoretti, Langata, and Westlands. Big slums in the sub-counties of Langata, Embakasi, and Makadara are selected as they are representative of the slums of Nairobi. The respondents from the three slums were selected using random sampling and 134 responses from each of the three slums were obtained.

2.4. Data Collection

The study collected primary data from respondents with the aim of answering the research questions. Data was collected using a semi-structured survey questionnaire which contains a mixture of open-ended questions that permit the respondents to give detailed answers and close ended questions. Leedy and Ormrod (2005) state that survey questionnaire is apt as it assists in understanding the phenomena that are occurring in the present situation and useful obtaining information from different locations.

The questionnaire was administered with the help of trained research assistants to slum residents in the three sub-counties. Kibera slum from Langata, Lunga slum from Makadara and Mukuru Kwa Njenga slum from Embakasi in Nairobi County was randomly selected to get a response from the adult poor. The interviews were conducted home visits, people sitting near shops and approaching people walking on the streets.

2.5. Pilot Study

The pilot study to pretest the questionnaire was conducted where it was reviewed by colleagues, practitioners in telecommunication companies and scholars who reviewed and suggested various adjustments, refinements, modifications and corrections in the content,

adequacy of the questions, clarity, and wording which were immediately done. The final questionnaire accompanied by introduction letter was sent out for data collection with the help of trained research assistants who were first trained for two days on the questionnaire testing their understanding of the questions and the ability to communicate with the respondents to clarify respondent's queries.

The data were collected from respondents in the identified slums by random sampling, where people on the streets, others sitting around the shops and others in their houses were approached, shown the letter and requested for their time to help to respond to the questionnaire. Despite the explanations that this was purely for academic purpose some still wanted to know if they will be paid to respond to which the researcher and the research assistants explained that there was no payment, thus some walked away indicating they are busy while others spent the time to respond to the questionnaire.

2.6. Reliability and Validity

DeVellis (1991) stated that reliability is the degree to which the measure is free of variable error. Reliability is enhanced by the accuracy and precision of the measurement procedure. The survey questionnaire was tested for reliability and have the same questions for all the respondents' in order to provide consistent results. The constructs internal consistency loading and values was inspected to assess the individual item's reliability.

The Cronbach's alpha test for internal consistency was used to test the findings of the data to indicate the extent to which a set of items can be treated as using a latent variable and a coefficient of 0.7 was considered for this study to determine the reliability of the scales and the result. To establish whether the constructs are represented by the indicators in the measurement model, composite reliability was assessed noting the threshold of 0.7 and above. The measurement scale reliability was also assessed using an item to total correlation with a threshold of 0.5 and the inter-item correlation of 0.3 (Bryne, 2001).

The validity of the instrument was tested for face and content validity. Since the measurement scales are derived from extensive review of conceptual and empirical literature review the instrument was deemed to have face validity. The content validity was ensured through review and verification of extant literature for the items contained in the questionnaire and carefully reworded to fit the context of this study. The questionnaire was reviewed by supervisors, other doctoral students, and practitioners in the banks and mobile telecommunication companies.

The convergent validity test was done using Smartpls and the obtained average variance explained were checked against the threshold of 0.5. Discriminant validity assessed whether the constructs analyzed are distinguishable by measuring the average variance explained being within the acceptable range of the constructs and found that the constructs passed discriminant validity. Other studies such as Puschel et al. (2010), Yu (2012) and Lu (2005) used these tests for reliability and validity.

2.7. Data Analysis

The data collected through questionnaires were coded and summarized ready for analysis. This study employed structural equation modeling (SEM) technique to model and analyze relationships and parameters of all constructs of the conceptual framework. Urbach and Ahlemann (2010) state that SEM is a single systemic statistical technique for the testing and estimation casual relationships among latent variables.

SEM Partial Least Squares (SEM-PLS) approach was employed to estimate the relationship between cultural factors, adoption and usage of mobile financial services by the poor in Kenya. SEM-PLS is an approach that uses empirical data to simultaneously test multivariate models (Hair, Hult, Ringle & Sarstedt, 2013). It estimates both the causal and linear relationships between the multiple independent or dependent, endogenous or exogenous constructs by simultaneous multiple equation estimation processes (Babin & Svensson, 2012).

The actual analysis started after data collection in a systematic way, the questionnaires were coded and data transferred from the paper questionnaire into an excel file where all the questions are captured and the responses are recorded for each question tracking each question using a unique identifier. The data were then screened to check for mistakes such as one question having two responses where one was expected, or having no feedback for this question, the general rule was in any such cases the questionnaire will be removed from the list and considered as spoilt depending on the extent of the mistake.

The responses were fed into SPSS 20 and descriptive analysis is performed to get the response rates, general characteristics of the responses and identification of missing values. This was followed by checking to see if there are any outliers and testing of normality of the data and the presence of multicollinearity problems using descriptive statistics.

The measurement model was developed in SmartPLS 3.0 to perform the model analysis by performing various tests such as reliability and validity tests. Data purification using exploratory factor analysis was performed to refine the variables into the most effective number by choosing to retain variables with high corrections among self but low with other variables. This was done using principle component analysis using varimax rotation. The results of exploratory factor analysis were reviewed and items with high cross-loadings, low item to total correlations were removed.

This method was relevant for this study as it can handle multiple variables simultaneously and was extensively used in literature which includes Puschel et al. (2010), Yu (2012) and Lu (2005) in similar studies such as adoption of mobile banking and mobile technologies confirming its suitability for this study.

3. Findings and Interpretations

3.1. Study Response Rate

The target population was 400 poor people living in the sampled slums of Nairobi a total of 398 questionnaires was returned resulting in a response rate of 99.5%. On preliminary analysis, 15 questionnaires had some sections of the questionnaire not responded to thus consider as incomplete and removed from the analysis. There were 5 questionnaires that had a total of 11 missing responses which could be as a result of the rush to fill in all the questions or intentionally skipped by the respondents. The missing response was replaced using the sub-group mean value replacement function (Ringle, Wende & Will, 2005; Hair, Hult, Ringle & Sarstedt, 2013).

On removing the 15 incomplete cases, 385 questionnaires were used and the adjusted response rate of 96.25%, which was a high response rate compared to Micheni, Lule, and Muketha (2013) who had a response rate of 83.3%. This was a result of researcher moving along with the research assistant from one slum to another to request the respondents to spend a few minutes to respond to the questionnaire, the introductory letter from the university significantly helped in convincing some respondents who appeared suspicious of our movement in the slums.

3.2. The Demographics

This study seeks to understand the adoption of mobile financial services among the poor, the results show that out of the 385 respondents, 54% are male and 46% are female this finding shows that this study was not gender biased, it is reflective of the population numbers in the country. The age of the respondents also reveals an interesting pattern 43.2% are under 25 years, 52% between 26-40 years and 5% above 40 years. The finding that the majority of the respondents who are randomly sampled are young confirms the census numbers that the young population in Kenya is relatively high and since this study was done during the day most of the elderly were out of the slum working.

3.3. The Cultural Factors

The cultural factors have two indicators, namely social influence and the type of culture, measured, using the summated subscales, each subscale was treated as a separate indicator for the latent variable contextual factors in the partial squares analysis. The scales were reviewed for reliability and convergent validity prior to PLS analysis.

The social influence indicator consisted of five statements in the questionnaire that were related to the level of agreement with the statements on the respondent's ability to adopt mobile financial services as a result of social influence. Each scale was rated on a seven-point Linkert type scale response framework 1 denoting strongly disagree to 7 denoting strongly agree. The average scale ranged from 4.84 to 5.14. These results indicate that there is a high social influence among the respondents to adopt mobile financial services.

The highest rating of 5.14 was the statement "I am able to adopt mobile financial services because social norms influence me to use mobile financial services" (SD=1.681, N=385). The statement with the lowest mean rating of 4.84 was the statement "I am able to adopt mobile financial services because people who influence my behavior have adopted it" (SD=1.510, N=385). This result shows that there is a high social influence which is more by the social norm which influences the poor to adopt mobile financial services.

The responses to a question requiring respondents to indicate other cultural reasons came up with reasons such as peer influence, children influencing their parents to adopt, not wanting to be left behind by technology advancement and sharing financial resources with the rest of the community.

The type of culture scale consisted of five items, the statement in the questionnaire relate to the influence of a particular cultural practice on adoption and usage of mobile financial services. Each scale was rated on a seven-point Linkert type scale ranging from 1denoting "strongly disagree" and 7 denoting "strongly agree". The average rating scale ranging from 2.97 to 5.24, this showed that there is high influence by the type of culture on the adoption and use of mobile financial services.

The highest mean rating of 5.24 was the statement "I am able to adopt mobile financial services because my culture promotes sharing of mobile phones to use mobile money" (SD=1.536, N=385) and the lowest mean rating of 2.97 was the statement "I am able to adopt mobile financial services because in my culture it is only men who deal with finances in the family". The findings for the type of culture shows that culture promotes usage of mobile financial services highly and enables access through sharing of mobile phones, the respondents further reject the culture that only the male deal with finances in the family. This can be confirmed by the existence of women entrepreneurs, the existence of small Sacco or the Mary-go-round contributions among the women where one woman in the group receives a lump sum amount contributed by the rest of the group members on a rotational basis.

3.4. Factor Analysis

Cultural factors have social influence and type of culture indicators which had a total of 10 items which seeks to measure the adoption of mobile financial services by the poor. Exploratory factor analysis was used to regroup and reduce the number of items to manageable factor and categorization, principal component analysis was used to extract factors with greater than 1 eigenvalue. Factor matrix with varimax rotation was used, Kaiser-Meyer-Olkin test of sampling adequacy was examined to validate the factor analysis

The exploratory factor analysis for cultural factors with the 10 items reveals that 10 items are well correlated and no item had a correlation loadings of higher than 0.8 to indicate that there is no problem of multicollinearity. The correlation matrix found in appendix 1.1, shows a determinant value of .022 which is significant as it is greater than the threshold of 0.0001. Kaiser-Meyer-Olkin measure of sampling adequacy is at 0.865 which is sufficient as it is above 0.5 thresholds (Kaiser, 1974), Bartlett's test of sphericity significant at 0.000 indicating that correlation matrix is significantly different from an identity matrix and it is less than the threshold

of 0.05.
The rotated component matrix has shown that all the ten items strongly hold together among two factors and items TC3, TC4, and TC5 have higher loading on social influence and thus were included in the social influence indicator as shown in table 4.9 above. The exploratory factor analysis with principal component method was satisfactory as items have to be reduced and regrouped appropriately. The reliability test conducted for the 10 items revealed a Cronbach alpha of 0.813 which is higher than the threshold of 0.5 thus all items are a reliable measure of the indicators. All the items are retained as they met the required thresholds for correlation, sampling adequacy, and reliability tests.

3.5. Relationship between Cultural Factors and Adoption
Based on the study results, there exist a positive significant relationship between cultural factors and adoption of mobile financial services with t=2.8631, p=0.004211 and p<0.05, but there is no significant relationship between cultural factors and usage of mobile financial services with t=0.400 p=0.6889. The total effect of cultural factors on adoption is t=2.7 while total effect of cultural factors on usage is t=0.4 therefore based on this statistical inference we fail to reject the hypothesis H1 that there exist a relationship between cultural factors and adoption and reject the hypothesis H2 that there exist a relationship between cultural factors and usage of mobile financial services as the relationship between cultural factors and usage of mobile financial services is not statistically significant.

3.6. Cultural Factors, Adoption and Usage
The specific objective of the study was to examine the relationship between pro-poor factors and adoption of mobile financial services. The specific pro-poor factors are contextual factors, community factors, and cultural factors. We discuss the findings of the relationship between cultural factors and adoption as well as the relationship between cultural factors and usage.
The study focused on the two indicators of social influence identified by Puschel et al. (2010) and type of culture proposed by Potnis (2014). The study found that there is a significant positive relationship between cultural factors and adoption, this could be explained by finding that the peers influence their peers as well as children influencing their parents in the adoption of mobile financial services. The study reveals that the indicator type of culture has a negative insignificant effect on the latent variable cultural factors.
This study finding is consistent with the extant literature, Van Bilijon and Kotze (2008) confirm that culture influence adoption of mobile phone. De Silva et al. (2009) confirms that social influence significantly affects adoption. Singh et al. (2010), Yu (2012), Amin et al. (2007) all found that social influence significantly affects the adoption and usage of mobile banking. This study confirms that there exist a significant positive relationship between cultural factors and adoption of mobile financial services. Despite finding by Amin et al. (2007) this study finds that as part of testing H2 there is an insignificant positive relationship between cultural factors and usage of mobile financial services.

4. Conclusion
Cultural factors have no effect on usage of mobile financial services despite having an effect on adoption. The result is in line with the following theories, the theory of reasoned action that the intention to the adoption of technology as adoption of mobile financial services is significantly influenced by behavioral intention. Thirdly the social influence is a significant indicator of cultural factors and significantly influence the adoption and usage of mobile financial services and the type of culture negatively affect the cultural factors. Despite significantly influencing adoption cultural factors do not significantly affect usage of mobile financial services. This shows that mobile financial services are used by all people of all types of culture as the underlying need for financial inclusion or transfer of money is not dependent on the type of culture.

5. Limitations of the Study
The study has several limitations few of which are highlighted in this section. The generalizability of the results is limited by the collection of data only from Nairobi County in Kenya. The study could be enriched by a collection of data from most of the counties in Kenya so that the results can be more generalizable.

6. References

i. Abduba, I., Njihia, M., and Litondo, K. (2015). Pro-poor mobile financial services. International Journal of Business and Social Science Vol. 6, No. 11(1); November 2015.
ii. Amin, H., Baba, R., and Muhammad, M. Z. (2007). An analysis of mobile banking acceptance by Malaysian customers. Sunway University College Academic Journal, 4, 1-12.
iii. Babin, B., & Svensson, G. (2012). Structural equation modeling in social science research: Issues of validity and reliability in the research process. European Business Review, 24(4), 320-330.
iv. Barnes, S. J., & Corbitt, B. (2003). Mobile banking: Concept and potential. International Journal of Mobile Communications, 1(3), 273-288.
v. Baron, S., Patterson, A., & Harris, K. (2006). Beyond technology acceptance: understanding consumer practice. International Journal of Service Industry Management, 17(2), 111 - 135.
vi. Byrne, B. M. (2001). Structural equation modeling with AMOS: Basic concepts, applications, and programming. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
vii. Bertolotti, D. (1984). Culture and technology. Bowling Green State Univ Popular press, OH, USA.
viii. De Silva, H., Ratnadiwakara, D., & Zainudeen, A. (2009). Social influence in mobile phone adoption: Evidence from the

bottom of the pyramid in emerging Asia. Available at SSRN 1564091.
ix. DeVellis, R. F. (1991). Scale Development. Theory and Practice. Newbury Park, Sage Publications
x. Dholakia, N., Dholakia, R.R., Lehrer, M. & Kshetri, N. (2004). Global Heterogeneity in the Emerging M-commerce Landscape, University of Rhode Island, Kingston, RI.,
xi. Hair, J.F., Hult, G. T. M., Ringle, C.M., Sarstedt, M. (2013). A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM) Sage, Thousand Oaks.
xii. Hughes, N. & Lonie, S. (2007). 'M-pesa: mobile money for the "unbanked" turning cellphones into 24-hour tellers in Kenya'. Innovations: Technology, Governance, Globalization. In: MIT Press 2 (1-2), 63-81.
xiii. Ivatury, G., & Pickens, M. (2006). Mobile phone banking and low-income customers: evidence from South Africa. Consultative Group to Assist the Poor.
xiv. Kaiser, H.F. (1974). An index of factorial simplicity. Psychometrika, 39, 31-36.
xv. Keshav, S. (2005). "Why cell phones will dominate the future internet?" ACM SIGCOMM Computer Communication Review 35, 2, 83-86.
xvi. Kirui, O.K., J.J. Okello, G.W Njiraini and R.A. Nyikal (2013): Impact of mobile phone-based money transfer services in agriculture: evidence from Kenya. Quarterly Journal of International Agriculture 52, No. 2: 141-162.
xvii. Leedy, P. & Ormrod, J. (2005). Practical research: Planning and Design, Prentice Hall, NJ
xviii. Lu, J., Yao, J., & Yu, C. (2005) Personal innovativeness, social influences, and adoption of wireless Internet services via mobile technology. Journal of Strategic Information Systems 14 (2005) 245–268. doi:10.1016/j.jsis.2005.07.003
xix. Micheni, E. M., Lule, I., & Muketha, G. M. (2013). Transaction costs and facilitating conditions as indicators of the adoption of mobile money services in Kenya. International Journal of Advanced Trends in Computer Science and Engineering (IJATCSE), 2(5), 09-15.
xx. Morawczynski, O. (2008, September). Surviving in the "dual system": How M-PESA is fostering urban-to-rural remittances in a Kenyan Slum. In Proceedings of the IFIP WG Vol. 9, pp. 110-127.
xxi. Orlikowski, W., & Baroudi, J. (1991). Studying Information Technology in organizations: Research approaches and Assumptions. Information system research, 2(1), 1-28
xxii. Potnis, D. D.(2014) Examining Mobile Banking in Developing Nations from Pro-Poor "Context, Culture, and Community" Perspective. ASIST 2014 Seattle, WA, USA.
xxiii. Pulver, R. (2009): The economics of branchless banking. In: Innovations 4 (2): 57-76. MIT Press, Cambridge, Massachusetts.
xxiv. Puschel, J., Mazzon, J. A. & Hernandez, J. M. (2010). Mobile banking: Proposition of an integrated adoption intention framework. International Journal of Bank Marketing, Vol. 28, No. 5: 389-409.
xxv. Renaud, K., & Biljon, J.V. (2008). Predicting technology acceptance and adoption Elderly: A qualitative study. ACM International Conference Proceeding Series, 338, 210.
xxvi. Ringle, C. M., Wende, S., & Will, S. (2005). SmartPLS 2.0 (M3) Beta, Hamburg,http://www.smartpls.de.
xxvii. Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. International Journal of Bank Marketing, 28(5), 328-341.
xxviii. Straub, M., Loch, K., Evaristo, R., Karahanna, E. and Srite, M. (2002). 'Toward a theory-based measurement of culture', Journal of Global Information Management, Vol. 10, No. 1, pp. 13–23.
xxix. Somasundaram, R., & Karlsbjerg, J. (2003). Research philosophies in the IOS Adoption fields. ECIS 2003 proceedings.
xxx. Singh, S., Srivastava, V., and Srivastava, R. K. (2010). Customer acceptance of mobile banking: A conceptual framework. SIES Journal of Management, 7(1), 55-64.
xxxi. Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. Journal of Information Technology Theory and Application, 11(2), 5-40.
xxxii. Wamuyu, P.K. (2014). The role of contextual factors in the uptake and continuance of mobile money usage in Kenya, The Electronic Journal of Information Systems in Developing Countries 64, 4, 1-19.
xxxiii. Yu, C.S. (2012) "Factors Affecting Individuals to Adopt Mobile Banking: Empirical Evidence from the UTAUT Model," Journal of Electronic Commerce Research, Vol. 13, No. 2: 104-121, 2012.