



International Journal of Economic Research

ISSN : 0972-9380

available at <http://www.serialsjournals.com>

© Serials Publications Pvt. Ltd.

Volume 14 • Number 19 • 2017

Facilitating Conditions and Perceived Security as Antecedents of Trust among E-banking Customers in Nigeria

Maruf Gbadebo Salimon^a, Sany Sanuri Mohd Mokhtar^b, Rushami Zien Yusoff^c,
A.Q. Adeleke^d, Saka Morakinyo^e and Hellena Mohammedy Mushi^f

^a School of Business Management, Universiti Utara Malaysia, Malaysia, E-mail: rzy278@uum.edu.my

^b School of Business Management, Universiti Utara Malaysia, Malaysia, E-mail: sany@uum.edu.my

^c School of Business Management, Universiti Utara Malaysia, Malaysia, E-mail: sany@uum.edu.my

^d Faculty of Industrial Management, Universiti Malaysia Pahang, Malaysia, E-mail: adekunle@ump.edu.my

^e Wema Bank Nigeria Plc, Ayedun Ekiti, Ondo State, Nigeria, E-mail: morakinyo.saka@wemabank.com

^f Department of Business, MZUMBE University, Tanzania, E-mail: hmohammed@mzumbe.ac.tz

*correspondent author: Email: sany@uum.edu.my

Abstract: The purpose of this paper is to empirically discuss facilitating conditions and perceived security as major factors that influence trust among e-banking customers in Nigeria. In doing so, final data that were collected from 266 customers were analyzed using PLS-SEM (2.0). The results of the study show that facilitating conditions and perceived security significantly and positively influenced trust among the e-banking users of four major banks in Nigeria. Theoretical and practical implications of the study are presented as a guide for both academics and practitioners

Keywords: Facilitating conditions, perceived security, trust, e-banking

INTRODUCTION

Electronic banking (e-banking) in the recent time has gained wider attention in both developed and developing countries. Such attention is based on the publicity and dissemination of information about the presumed benefits of the technology based banking service. For instance, Liebanas-Cabanillas *et al* (2016, pp. 141) from the perspectives of individual customers opined that the benefits of e-banking include “convenience, global access, availability, cost and time savings, transparency of information, ability to choose and compare and customization”. These benefits have been confirmed by a number of other scholars (Al-Majali and Nik Mat, 2010; Amin, 2016; George and Kumar, 2013; Ndubisi and Sinti, 2006; Safeena *et al.*, 2011). Of recent, a number of banking institutions have also invested heavily in the e-

banking related facilities since such technology is helping them to serve their customers better and creating superb customer relationship than traditional banking system (Sharma *et al.*, 2017).

In view of the benefits of e-banking, evidence has shown that its acceptance in developed and industrialized nations has continued to increase tremendously (Safeena *et al.*, 2014). BigCommerce, (2017) for instance, reports that an average American and European use e-banking to transact at different platforms making the rate of usage to reach over 52% of the total population with cumulative transaction of average \$200 billion USD per annum. However, in developing countries like Nigeria, only 42% of the teeming populations of 148 million that use smartphones embrace e-banking while over 77% of the populations use other social media for personal reasons than banking transactions (KPMG, 2017). In line with this, Nigeria's banks have failed hugely to translate the passion for social media and proliferation of the internet into increased adoption of e-banking solutions because the majority of Nigerians are still worried about the stability/security of alternative of the alternative channel (KPMG, 2017), and which have greatly affected the level of trust of e-banking users (Ayo *et al.*, 2016; Ezeoha, 2005; Tade and Adeniyi, 2016). And as noted by Yap *et al* (2010), the usage rate of e-banking is far behind that of internet usage due to lack of trust among e-banking customers. In particular, news headlines about identity theft, e-mail scams, and "phishing" have continued to seriously distort the perceptions of consumer about the level of trust in the platform of e-banking (Gerrard *et al.*, 2006). Recently, Ernst and Young, (2017) equally argued that enhancing cybersecurity, and managing the threat of financial crime is a major challenge for banks across the globe.

Further evidence has equally shown that the level of decaying or epileptic nature of facilitating conditions such as internet, electric supply, technical assistance, and ineffective regulatory frameworks among others for related IT/IS services like e-banking is another major factor affecting the level of trust for IT/IS such as e-banking (Adesina, 2010; Lu *et al.*, 2005) thereby influencing the rate of adoption especially in developing countries like Nigeria (Adesina, 2010).

Despite the challenge being faced by e-banking in developing countries generally and Nigeria in particular, very limited studies have been conducted as majority of previous studies either emanate from developed or emerging nations (AbuShanab *et al*, 2010; Chong *et al*, 2010) while a few of other studies from developing countries are parochial in their approach (Awa *et al.*, 2015). Aside, even though trust which is regarded as a key concept in marketing (Morgan and Hunt, 1994) has been deeply discussed in other areas such as e-commerce and mobile commerce (e.g., Amin *et al.*, 2014; Liu *et al.* 2008), less attention has been paid to it in the field of e-banking marketing and adoption (Yu *et al.*, 2015; Zhao *et al.*, 2010). Additionally, while the trust antecedents with regards to online banking have been discussed by a number of recent researchers (e.g., Zhao *et al*, 2010), no consensus has been reached about its specific determinants (Kim and Peterson, 2017).

In view of this, the objective of this paper is to discuss perceived security and facilitating conditions as the major factors influencing trust with electronic banking in Nigeria. The rest of the paper is structured as follows. The next section discusses the literature review and presents the conceptual framework. The following part unveils the methodology of the research while the last section presents discussion of findings, implication of the study and future research recommendation.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Various studies have been conducted to investigate the adoption of e-banking. However, very limited scholars have paid attention to the issue of trust in e-banking (Zhao *et al*, 2010). Among popular theories

used to predict e-banking adoption include Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB), Theory of Reasoned Action (TRA) and Universal Theory of Acceptance and Use of Technology (UTAUT) (Ajzen, 1991; Davis, 1989; Venkatesh *et al.*, 2003). Out of these various models however, UTAUT is the most widely employed due to its parsimony, simplicity, and robustness (Abu-Shanab *et al.*, 2010; Faaeq *et al.*, 2013; Foon and Fah, 2011; Venkatesh *et al.*, 2012; Tarhini *et al.*, 2016). Despite this, scholars have continued to debate (for a review, see Venkatesh *et al.*, 2012) about the universal applicability of the constructs of UTAUT to all contexts and contents (Tarhini *et al.*, 2016). A review of literature has equally shown to the limited knowledge of the researchers that no study has extended or linked UTAUT with trust in e-banking in developing countries like Nigeria. This study fills the knowledge gap by incorporating perceived security with facilitating condition to explain trust in e-banking.

TRUST IN E-BANKING

In seller and buyer relationship, trust is regarded as a central point (Morgan and Hunt, 1994). Researchers have generally suggested that placing trust on another party involves a level risk (Morrison and Firmstone, 2000) since one party would believe that the relationship partner would act as anticipated (Zhao *et al.*, 2010). In the online environment, trusting the service provider involves relying on the banking institution's website activities in particular, and/or other electronic medium in general (Kim and Peterson, 2017). The degree of trust that an individual possesses in a particular object/transaction would differ contingent on the time the trust is assessed (Ayo *et al.*, 2010). Moreover, if the degree of trust exceeds the threshold of perceived risk, then the individual may be willing to take some risks which involve initiating a financial transaction relationship with the e-bankers. However, in e-banking, trusting service provider is considered more important than traditional banking due to the higher degree of uncertainty associated with the online environment (Yu *et al.*, 2015). Today, majority of customers are highly skeptical in providing their sensitive data to web since they are worried about the possible misuse and transmission of either their credit or debit cards (e.g. Akhlaq and Ahmed, 2013; Al-Nasser *et al.* 2016). Customers feel uncomfortable when asked about sensitive information such as credit card number due to distrust in the internet banking technology (Suh and Han, 2002). Lack of trust remains a barrier in the widespread adoption of e-banking both in the context of the bank and the overall online environment (Yousafzai *et al.*, 2009) especially if the level of integrity, ability and benevolence of the service provider is doubted. While several studies have considered trust in mobile commerce (e.g., Hillman and Neustaedter, 2017), e-commerce (e.g., Wang *et al.*, 2016), online hotel booking (e.g., Sparks *et al.*, 2016), their findings remain inconsistent (Kim and Peterson, 2017) and which have created a quandary in their generalization. Such inconsistency calls for further investigation. Aside, the studies that considered the antecedents of e-banking trust in the context of developing countries, such as Nigeria is very limited (Barkhordari *et al.*, 2016).

FACILITATING CONDITIONS (FC)

Facilitating conditions refer to the accessibility of resources such as software, hardware, documentation, training, and other technology infrastructure that support IT/IS like e-banking (Khalifa and Shen, 2008; Venkatesh *et al.*, 2003; Yuen *et al.*, 2015). It is a form of ability of the service provider to provide desired and supportive resources to operate e-banking effectively. As noted by Micheni *et al.*, (2013) responsive and reliable customer support services such as explicit explanation about product characteristics, liquidity

availability, and marketing of these variables are equally regarded as key facilitating conditions that can engender some level of trust towards mobile money services. In their vulnerability, the customers trust the banks to effectively manage their money while they are longing to be closer to their money and this closeness comes in the form of facilitating conditions (Micheni *et al.*, 2013). In line with the argument of Lu *et al.* (2005), facilitating conditions should also include non-technical external controls with respect to favorable international legal and regulatory protection, guidance and control especially that the use of IT/IS such as e-banking is not limited to a particular region. When individuals are given more of these supporting facilities they tend to develop trust in the e-banking (Lu *et al.*, 2005) since they will believe that their banks are committing enough resources to ensure that the e-banking is smoothly operated (Salimon *et al.*, 2016). Lack of such facilities however would make users to be hesitant about e-banking facilities.

PERCEIVED SECURITY

Importance of security has been generally acknowledged either in offline or online transaction (Yap *et al.* 2010; Yousafzai *et al.*, 2009). In e-banking transaction, more preference is given to security because of the risk that is involved with the use of technology. Perceived security in e-commerce is regarded as a threat which brings about the ‘circumstance, condition, or event with the potential to cause economic hardship to data or network resources in the form of destruction, disclosure, modification of data, fraud, and abuse’ (Salimon *et al.*, 2017; Yousafzai *et al.*, 2009). The apprehension about insufficient security is one of the reasons that have been ascertained as a serious impediment in the growth and development of e-commerce, including e-banking adoption (Ezeoha, 2005; Mansour *et al.*, 2016). In this study, perceived security is defined as any event that can make e-banking users to lose their money or other information thereby not trusting the banker (Salimon *et al.*, 2017). Therefore, security may be regarded as the most significant factor influencing customer trust in the use of electronic payment system (Barkhordari *et al.*, 2017) such as e-banking. Chellapa and Pavlou (2002) opined that trust will be influenced positively when customers’ perception of security is increased.

HYPOTHESIS DEVELOPMENT

Several studies have linked facilitating conditions to intention (Wu *et al.*, 2014; Venkatesh *et al.*, 2003), user satisfaction (Venkatesh *et al.*, 2011), adoption and behavior (Oliveira *et al.*, 2015; Tarhini *et al.*, 2016), in different fields of IT/IS marketing. Very limited study however linked facilitating condition with IT/IS related service trust such as mobile wireless (e.g. Lu *et al.*, 2005). Based on this, the following hypothesis is formulated.

H1: Facilitating condition positively influences trust in e-banking

A number of studies have found positive and significant relationship between perceived security and trust in different fields (e.g. Adesina and Ayo, 2010; Al-Sharafi *et al.*, 2016; Barkhordari *et al.*, 2017; Yusafzai *et al.*, 2009). Based on this, the following hypothesis is formulated.

H2: Perceived Security positively influences trust in e-banking

Based on the discussions and formulation of the hypotheses above, the conceptual frame of this study is presented below

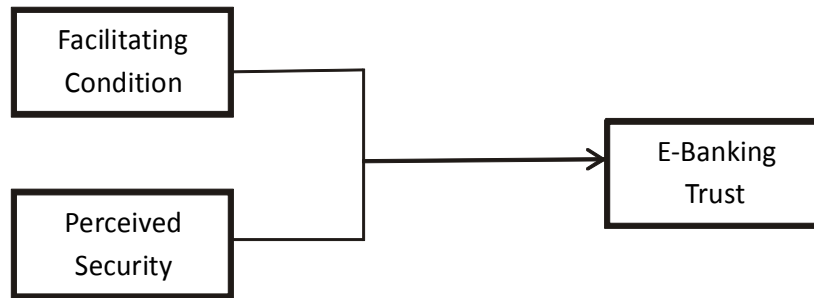


Figure 1: Conceptual framework

RESEARCH METHODOLOGY

The researchers collected data from 266 users of e-banking in four different commercial banks in Nigeria using mall intercept. All the customers are based in Lagos, Nigeria. In all, 20 measurement items were adapted from previous studies (Alalwan *et al.*, 2015; Lu *et al* 2005). Items of e-banking trust and facilitating conditions were adapted from Alalwan *et al.*, (2015) and Lu *et al* (2005) respectively while perceived security were taken from Yousafzai *et al* (2009). All of these items were measured using the seven-point Likert scale ranging from “strongly disagree (1)” to “strongly agree (7)” (Dwivedi *et al.*, 2006). The questionnaire also included six closed-ended questions to represent the respondents’ demographic characteristics

Table 1
Demographic information

	Frequency	%
Gender		
Male	165	62.03
Female	101	37.96
Age		
Age 20 and below 30	104	39.09
Age between 30 and 34	85	31.95
Age between 35 and 39	34	12.78
Age between 40 and 44	24	9.04
Age between 45 and 50	19	7.14
Employment Status		
Private Employment	102	38.35
Government Employees	123	46.24
Others 41	15.41	
Marital Status		
Married	119	44.74
Single	140	52.63
Divorced	7	2.63

Table 2
Factor Loading Significance

<i>E-banking Trust</i>	<i>Loadings</i>
E-banking Trust	AVE= 0.5973;CR=0.8548;CRB=0.7724
ET2	0.6768
ET4	0.7313
ET5	0.8243
ET6	0.8466
Facilitating Conditions	AVE= 0.5565;CR=0.8334;CRB=0.7339
FC5	0.6764
FC2	0.7792
FC3	0.7432
FC4	0.7802
Perceived Security	AVE= 0.5732;CR=0.8701;CRB=0.8141
PS1	0.7420
PS6	0.8083
PS2	0.7091
PS3	0.7449
PS4	0.7774

Table 2
Discriminant Validity

	<i>1</i>	<i>2</i>	<i>3</i>	
1	ET	0.772852		
2	FC	0.6251	0.745989	
3	PS	0.5422	0.5322	0.7571

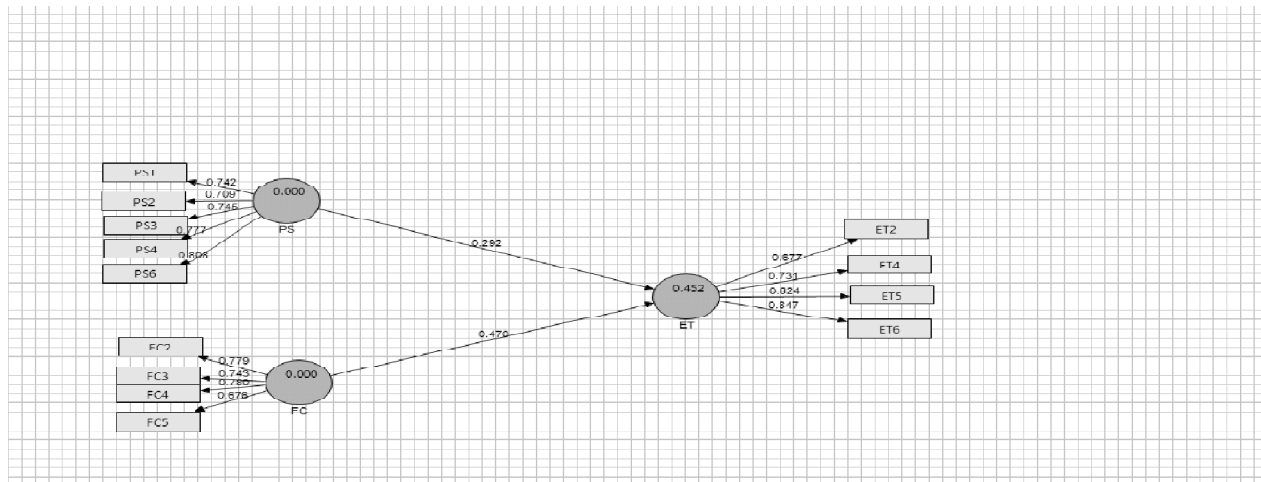


Figure 2: Measurement Model

FINDINGS

Structural model results

Having validated the measurement model, all the hypotheses were subjected to empirical test by ascertaining their level of significance in the model based on PLS path modeling. The results of the analysis are shown in Figure 2 and Table 3.

Facilitating condition H1 ($b=0.4695$; $tv= 9.56$; $pv< 0.000$) and Perceived security H2 ($b=0.292$; $tv= 6.21$; $pv< 0.000$) have positive and significant relationship with trust in e-banking thereby making all the hypotheses to be supported. This result is depicted in figure 3 and Table 2.

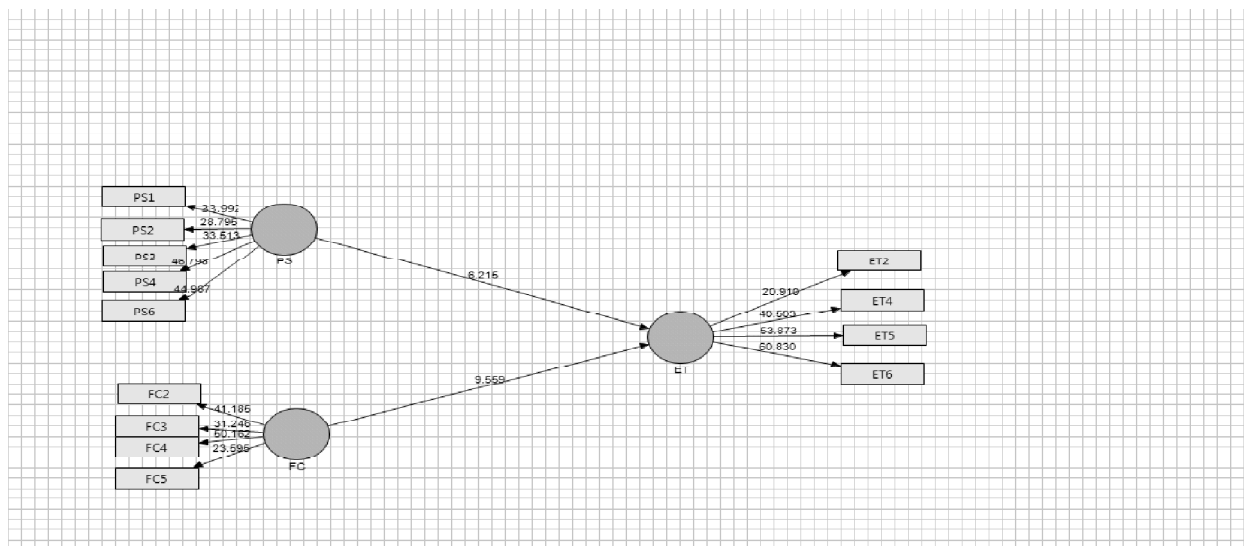


Figure 3: Structural Model

Table 3
Structural Model Result

	Paths	b	SE	TV	PV	Decision
H1	FC -> ET	0.4695	0.049	9.5589	0.000	Supported
H2	PS -> ET	0.2923	0.047	6.2146	0.000	Supported

Effect size (F2) and Predictive relevance (Q2) determination

Apart from R^2 value evaluation, the researchers also estimated the effect sizes of the model. In order to do this, it is required that the changes that occur to the R^2 value when a particular exogenous variable is removed while running algorithm of the model should be recorded as this would assist to evaluate the contribution of the omitted variable on the endogenous latent variable (Chin, 1998). Going by the recommendation of Cohen 1988, and Selya *et al.* (2012) f^2 is calculated using the following formula:

$$Effect\ Size\ f^2 = \frac{R^2\ included - R^2\ excluded}{1 - R^2\ included}$$

Based on the guideline of Cohen (1988) effect sizes of 0.02, 0.15 and 0.35 are respectively regarded as small, medium and large (Adeleke *et al.*, 2017). The effect sizes generated for perceived security and facilitating conditions are 0.283 and 0.111 respectively and which indicate medium and small effect sizes accordingly (Cohen 1988).

Additionally, the predictive relevance of the model was also calculated by following the blind folding technique (Geisser 1974; Stone 1974). In order to calculate this, it is suggested to apply cross-validated redundancy (Hair *et al.* 2013). Any value of Q^2 which is greater than zero for the endogenous variable is an indication that the model is very strong in terms of its predictive relevance. In this research, the Q^2 obtained is 0.244 for the endogenous latent variable and which suggests the predictive relevance of the research model (Adeleke *et al.* 2015; Chin 1998; Henseler *et al.* 2009).

CONCLUSION AND DISCUSSION

The primary objective of this study was to analyze the factors that determine trust in e-banking in Nigeria. The research successfully integrated perceived security with facilitating conditions (a core variable of UTAUT) in order to predict trust in the e-banking. Results indicated that facilitating conditions (FC) (*p-value* 0.000), and perceived security (PS) (*p-value* 0.000) positively influence trust in e-banking.

Facilitating condition was found to be significant positive predictor of trust in e-banking. This finding supports the results of past researches conducted in the field of IT/IS and other mobile technology adoption (Lu *et al.*, 2005). This therefore implies that reliable and responsive customer support services, customer education around product features, availability of liquidity, and undisruptive internet facilities are some of the key factors to facilitate the trust in e-banking services. This is very sacrosanct as a number of customers especially in developing countries are not technologically confident while in their vulnerability, they tend to trust the e-banking service provider to effectively manage their money (Micheni *et al.*, 2013).

Perceived security was equally found to be significantly and positively related to trust in e-banking. This finding supports the results of previous studies (Barkhordari *et al.*, 2016; Rocas *et al.*, 2009; Yousafzai *et al.*, 2009) indicating that uncertainty reduction is very essential and a key component that makes customer to develop trust in e-banking platform. It further shows that if e-banking users are less worried about illegal use or unauthorized access to their financial information by third parties, they will develop high level of trust in the e-banking system.

The theoretical implications of this study lie in its critical consideration of the effect of facilitating conditions and perceived security on the e-banking trust. While many previous studies have predicted online trust generally using different antecedents, very few predicted e-banking trust based on the factors used in this study. Through incorporation of facilitating condition and perceived security into this model, the need to conduct more researches that can be used to boost performance of e-banking has been addressed. This model can serve as a reference guide for academics for future prediction as it will also improve the comprehension of the relationships among the constructs of the study in the context of Nigeria, other developing countries and the globe at large.

Based on the findings of this study, a number of implications can also be drawn for the practitioners. For instance, the positive and significant relationship between facilitating condition and e-banking trust places obligations on bank managers and policy makers to ensure that facilities that would ensure that e-

banking is operated with little or without hitch are put in place. The users of e-banking would develop trust when adequate supporting services like online enquiry, instant responses to queries, initial training and instructions on how to use e-banking platform, troubleshooting information and international regulations guiding overseas users are effectively instituted.

Moreover, perceived security significantly and positively predicts e-banking trust. The significant and positive relationship is further buttressed by the medium effect size (Q^2) of perceived security variable. This therefore suggests that banks in Nigeria need to develop strategies that could significantly reduce the customers' apprehension and concerns about e-banking services through which high level of trust can be developed. Since trust especially in the online transactions is more important than brick and mortar branch activities because of the absence of interpersonal interaction, protection techniques such as Padlock symbol, VeriSign, Virtual Keyboard, The letter 's' in the URL, SMS alert, Sign on password expiry, instant lockout on numerous incorrect password entry and etc can be incorporated into online websites for the purpose of protecting the interest of e-banking users. Additionally, when simple graphic designs and statements indicating that e-banking activities are guaranteed, risk concerns of the users may be calmed. So also, a very precise and well-presented security policy may reduce security concerns and thereby assists in increasing the degree of trust.

The data of this were collected from 266 respondents through mall intercept. Therefore, the selected sample may be subjected to some bias. Furthermore, the respondents selected for the study were from Lagos and belong to diverse demographic group in an uneven pattern, which may influence the results of this research. Aside, only two antecedents of trust were tested while other crucial factors of the e-banking institutions which might influence trust were not taken into consideration. Many other important related factors such as perceived reputation, perceived privacy, perceived usefulness, perceived information quality, design quality, perceived risk and so on, which can engender e-banking trust can be researched by the future researchers. If some of these factors are included in the framework in the future, the R^2 of 45.2% which was explained by the two antecedents can be improved on.

REFERENCES

- Abushanab, E., Pearson, J. M., & Setterstrom, A. J. (2010). Internet Banking and Customers' Acceptance in Jordan/ : The Unified Model's Perspective. *Communications of the Association for Information Systems*, 26(23), 493–524.
- Adeleke¹, A. Q., Bahaudin, A. Y., & Kamaruddeen, A. M. (2015). A Partial Least Square Structural Equation Modeling (PLS SEM) Preliminary Analysis on Organizational Internal and External Factors Influencing Effective Construction Risk Management among Nigerian Construction Industries. *Revista Técnica de la Facultad de Ingeniería Universidad del Zulia*, 38(3), 143-155.
- Adeleke, A. Q., Bahaudin, A. Y., & Kamaruddeen, A. M. (2017). Organizational Internal Factors and Construction Risk Management among Nigerian Construction Companies. *Global Business Review*, 19 (4), 1-18.
- Adesina, A. A., and Ayo, C. K. (2010). An empirical Investigation of the Level of Users' acceptance of E-Banking in Nigeria. *Journal of Internet Banking and Commerce*, 15 (1), 1–13.
- Ajzen, I. (1991). The Theory of Planned Behavior", *Organizational Behavior and Human Decision Processes*, 50 (1), 179–211.
- Akhlaq, A., & Ahmed, E. (2013). The effect of motivation on trust in the acceptance of internet banking in a low income country. *International Journal of Bank Marketing*, 31(2), 115-125.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., Lal, B., & Williams, M. D. (2015). Consumer adoption of Internet banking in Jordan: Examining the role of hedonic motivation, habit, self-efficacy and trust. *Journal of Financial Services Marketing*, 20(2), 145-157.

- Al-Majali, M. & Nik Kamariah Nik Mat (2010). Application of decomposed theory of planned behavior on internet banking adoption in Jordan. *Journal of Internet Banking and Commerce*, 15(2), 1-7.
- Al-Nasser M., Yusoff R.Z., Islam R., Abidin I.S.A., & Samsudin S. (2016). Mediating effect of e-service quality perceptions on attitude and trust toward online shopping. *International Business Management*, 10(3), 228-240.
- Al-Sharafī, M., Arshah, R., Abu-Shanab, E., Fakhreldin, M., & Elayah, N. (2016). The Effect of Security and Privacy Perceptions on Customers' Trust to Accept Internet Banking Services: An Extension of TAM. *COMSCET 2016*, 1-9.
- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International Journal of Bank Marketing*, 34(3), 280-306.
- Awa, H. O., Ojiabo, O. U., & Emecheta, B. C. (2015). Integrating TAM, TPB and TOE frameworks and expanding their characteristic constructs for e-commerce adoption by SMEs", *Journal of Science & Technology Policy Management*, 6 (1), 76-94.
- Ayo, C. K., Oni, A. A., Adewoye, O. J., & Eweoya, I. O. (2016). E-banking users' behaviour: E-service quality, attitude, and customer satisfaction. *International Journal of Bank Marketing*, 34(3), 347-367.
- Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. S. (2017). Factors influencing adoption of e-payment systems: an empirical study on Iranian customers. *Information Systems and e-Business Management*, 15(1), 89-116.
- Carlos Roca, J., José García, J., & José de la Vega, J. (2009). The importance of perceived trust, security and privacy in online trading systems. *Information Management & Computer Security*, 17(2), 96-113.
- Chellappa RK, Pavlou PA (2002). Perceived information security, financial liability and consumer trust in electronic commerce transactions. *Logist Inf Manag* 15(5/6): 358–368.
- Chellappa, R. K., & Pavlou, P. A. (2002). Perceived information security, financial liability and consumer trust in electronic commerce transactions. *Logistics Information Management*, 15(5/6), 358-368.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295(2), 295-336.
- Chong, A Yee-Loong, Ooi, K. B., Lin, B., & Tan, B. I. (2010). Online banking adoption: an empirical analysis. *International Journal of Bank Marketing*, 28(4), 267-287.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd edition. Erlbaum, Hillsdale, NJ
- Dwivedi, Y. K., Choudrie, J., & Brinkman, W. P. (2006). Development of a survey instrument to examine consumer adoption of broadband. *Industrial Management & Data Systems*, 106(5), 700-718.
- Ernst & Young (2017). The global banking outlook 2017. Retrieved from <http://www.ey.com>
- Ezeoha A. E. (2005). Regulating Internet Banking In Nigeria: Problems and Challenges – Part 1". *Journal of Internet Banking and Commerce*, 11 (1).
- Faaeq, Munadil K., Noor Azizi Ismail, Wan Rozaini Sheik Osman, Abdullah Kaid Al-Swidi, and Alaa K. Faieq (2013). A meta-analysis of the unified theory of acceptance and use of technology studies among several countries. *Electronic Government, an International Journal* 10 (3/4) 343-360.
- Foon, Y.S. and Fah, B.C.Y. (2011). Internet banking adoption in Kuala Lumpur: an application of UTAUT model, *International Journal of Business and Management*, 6 (4), 161-167.
- Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika*, 61(1), 101-107.
- George, A., & Kumar, G. G. (2013). Antecedents of customer satisfaction in internet banking: Technology acceptance model (TAM) redefined. *Global business review*, 14(4), 627-638.
- Gerrard, P., Cunningham, J.B. and Devlin, J.F. (2006). Why consumers are not using internet banking: a qualitative study, *Journal of Services Marketing*, 20(3), 160-168.

- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance.
- Hanaysha, J., & Hilman, H. (2015). The Impact of Product Innovation on Relationship Quality in Automotive Industry: Strategic Focus on Brand Satisfaction, Brand Trust, and Brand Commitment. *Asian Social Science*, 11(10), 94-104.
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New challenges to international marketing*. Emerald Group Publishing Limited.
- Hillman, S., & Neustaedter, C. (2017). Trust and mobile commerce in North America. *Computers in Human Behavior*, 70, 10-21.
- Bigcommerce (2017). Report on trend of e-commerce retrieved from www.bigcommerce.com/blog/ecommerce-trends/
- Khalifa, M., & Shen, K. N. (2008). Drivers for transactional B2C m-commerce adoption: Extended theory of planned behavior. *Journal of Computer Information Systems*, 48(3), 111-117.
- Kim, Y., & Peterson, R. A. (2017). A Meta-analysis of Online Trust Relationships in E-commerce. *Journal of Interactive Marketing*, 38(1), 44-54.
- KPMG. (2017). Banking Industry Customer Satisfaction Survey, Nigeria, Lagos: KPMG Professional Services, retrieved from <http://www.kpmg.com>
- Liébana-Cabanillas, Francisco, *et al* (2016). “The moderating effect of user experience on satisfaction with electronic banking: empirical evidence from the Spanish case.” *Information Systems and e-Business Management* 14.1 (2016): 141-165.
- Lifen Zhao, A., Koenig-Lewis, N., Hanmer-Lloyd, S., & Ward, P. (2010). Adoption of internet banking services in China: is it all about trust?. *International Journal of Bank Marketing*, 28(1), 7-26.
- Liu, X., He, M., Gao, F., & Xie, P. (2008). An empirical study of online shopping customer satisfaction in China: a holistic perspective. *International Journal of Retail & Distribution Management*, 36(11), 919-940.
- Lu, J., Yu, C. S., & Liu, C. (2005). Facilitating conditions, wireless trust and adoption intention. *Journal of Computer Information Systems*, 46(1), 17-24.
- Mansour, I. H. F., Eljelly, A. M., & Abdullah, A. M. (2016). Consumers' attitude towards e-banking services in Islamic banks: the case of Sudan. *Review of International Business and Strategy*, 26(2), 244-260.
- 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.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *The journal of marketing*, 58(3), 20-38.
- Morrison, D. E., & Firmstone, J. (2000). The social function of trust and implications for e-commerce. *International Journal of Advertising*, 19(5), 599-623.
- Ndubisi, N.O, & Sinti, Q. (2006). Consumer attitudes, system's characteristics and internet banking adoption in Malaysia. *Management Research News*, 29(1/2), 16-27.
- Oliveira, T., Faria, M., Thomas, M. A., & Popović, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(5), 689-703.
- Safeena, R., Date, H., & Kammani, A. (2011). Internet Banking Adoption in an Emerging Economy: Indian Consumer's Perspective. *Int. Arab J. e-Technol.*, 2(1), 56-64.
- Safeena, R., Kammani, A., & Date, H. (2014). Assessment of internet banking adoption: An empirical analysis. *Arabian Journal for Science and Engineering*, 39(2), 837-849.
- Salimon, M. G., Yusoff, R. Z. B., & Mohd Mokhtar, S. S. (2017). The mediating role of hedonic motivation on the relationship between adoption of e-banking and its determinants. *International Journal of Bank Marketing*, 35(4), 558-582.

- Salimon, M. G., Yusoff, R. Z., & Mokhtar, S. S. M. (2016). The influence of e-satisfaction, e-trust and hedonic motivation on the adoption of e-banking and its determinants in Nigeria: A pilot study. *Mediterranean Journal of Social Sciences*, 7(1), 54-63.
- Selya, A. S., Rose, J. S., Dierker, L. C., Hedeker, D., & Mermelstein, R. J. (2012). A practical guide to calculating Cohen's f^2 , a measure of local effect size, from PROC MIXED. *Frontiers in psychology*, 3.
- Sharma, S. K., Govindaluri, S. M., Al-Muharrami, S., & Tarhini, A. (2017). A multi-analytical model for mobile banking adoption: A developing country perspective. *Review of International Business and Strategy*, 27(1), 133-148.
- Sparks, B. A., So, K. K. F., & Bradley, G. L. (2016). Responding to negative online reviews: The effects of hotel responses on customer inferences of trust and concern. *Tourism Management*, 53, 74-85.
- Stone, M. (1974). Cross-validators choice and assessment of statistical predictions. *Journal of the royal statistical society. Series B (Methodological)*, 111-147.
- Suh, B., & Han, I. (2002). Effect of trust on customer acceptance of Internet banking. *Electronic Commerce research and applications*, 1(3-4), 247-263.
- Tade, O., Tade, O., Adeniyi, O., & Adeniyi, O. (2016). On the limits of trust: Characterising automated teller machine fraudsters in southwest Nigeria. *Journal of Financial Crime*, 23(4), 1112-1125.
- Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach. *Information Technology & People*, 29(4), 830-849.
- Venkatesh, V., Brown, S. A., Maruping, L. M., & Bala, H. (2008). Predicting different conceptualizations of system use: the competing roles of behavioral intention, facilitating conditions, and behavioral expectation. *MIS quarterly*, 483-502.
- Venkatesh, V., Morris, M., Davis, G., and Davis, F. (2003). User acceptance of information technology: Toward a unified view?. *MIS Quarterly*, 27 (3), 425-478.
- Venkatesh, V., Thong, J. Y., Chan, F. K., Hu, P. J. H., & Brown, S. A. (2011). Extending the two stage information systems continuance model: Incorporating UTAUT predictors and the role of context. *Information Systems Journal*, 21(6), 527-555.
- Wang, W. T., Wang, Y. S., & Liu, E. R. (2016). The stickiness intention of group-buying websites: The integration of the commitment-trust theory and e-commerce success model. *Information & Management*, 53(5), 625-642.
- Wu, C. C., Huang, Y., & Hsu, C. L. (2014). Benevolence trust: a key determinant of user continuance use of online social networks. *Information Systems and e-Business Management*, 12(2), 189-211.
- Yap, K. B., Wong, D. H., Loh, C., & Bak, R. (2010). Offline and online banking—where to draw the line when building trust in e-banking?. *International Journal of Bank Marketing*, 28(1), 27-46.
- Yousafzai, S., Pallister, J., & Foxall, G. (2009). Multi-dimensional role of trust in Internet banking adoption. *The Service Industries Journal*, 29(5), 591-605.
- Yu, P. L., Balaji, M. S., & Khong, K. W. (2015). Building trust in internet banking: a trustworthiness perspective. *Industrial Management & Data Systems*, 115(2), 235-252.
- Yuen, Y. Y., Yeow, P. H., & Lim, N. (2015). Internet banking acceptance in the United States and Malaysia: a cross-cultural examination. *Marketing Intelligence & Planning*, 33(3), 292-308.
- Zhao, L. A., Koenig-Lewis, N., Hanmer-Lloyd, S., & Ward, P. (2010). Adoption of internet banking services in China: is it all about trust?. *International Journal of Bank Marketing*, 28(1), 7-26.