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Determinants of Electronic Payment System Adoption in Nigeria: An Integrated Tam and Delone & Mclean Model Approach.

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ABSTRACT

This study develops an integrated theoretical framework combining the Technology Acceptance Model (TAM) and the DeLone and McLean's Information Systems Success Model is utilized to analyze the factors influencing the acceptance of electronic payment systems (EPS) in Nigeria .This model includes elements such as system quality, service quality, perceived usefulness, perceived ease of use, perceived risk, trust, and infrastructure challenges are identified as contextual obstacles impacting adoption results in a developing country, On the other hand, users' views and behavioral intentions about EPS utilization are found to be predicted by company reputation. 3,450 valid responses were gathered from clients of particular commercial banks in Southwestern Nigeria using a quantitative survey design. Data were analyzed using multiple regression and principal component analysis.

Findings reveal that system quality ($\beta = 0.237$, $p < 0.001$), service quality ($\beta = 0.410$, $p = 0.002$), perceived usefulness ($\beta = 0.119$, $p = 0.004$), perceived ease of use ($\beta = 0.306$, $p = 0.001$), perceived risk ($\beta = 0.237$, $p < 0.001$), trust ($\beta = 0.010$, $p < 0.001$), and organizational reputation ($\beta = 0.267$, $p < 0.001$) significantly influence users' attitudes toward EPS adoption. Furthermore, attitude significantly predicts behavioral intention to use EPS.

Infrastructural constraints such as erratic electricity supply, poor internet connectivity, and high operational costs were identified as major barriers to adoption. The study concludes that EPS adoption in Nigeria is shaped by a combined influence of technological, behavioral, trust-based, and infrastructural factors.

The study extends TAM and DeLone–McLean models by introducing infrastructural constraints as contextual determinants in developing economies. The findings offer implications for policymakers, financial institutions, and digital payment service providers in strengthening digital payment ecosystems.

Keywords- Electronic Payment System, Trust, System and service quality, Perceived risk, Organizational Reputation, Attitude, TAM, DeLone & McLean, Adoption, Infrastructure, Nigeria.

INTRODUCTION

The global financial system is undergoing rapid digital transformation driven by technological innovation, increased internet penetration, and the growing adoption of cashless payment solutions. Electronic payment systems (EPS) have become central to modern economic transactions, enabling efficient, secure, and real-time financial exchanges across individuals, businesses, and governments. In both developed and emerging economies, EPS is increasingly viewed as a critical infrastructure for enhancing financial inclusion, reducing transaction costs, improving transparency, and supporting economic growth.

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In Nigeria, policy initiatives such as the Central Bank of Nigeria's (CBN) cashless policy have accelerated the promotion of electronic payment systems as a strategic tool for reducing cash dependency and improving financial system efficiency. Despite these efforts and the expansion of digital banking infrastructure by commercial banks, the adoption and sustained use of EPS among consumers remain below expectations. Many users still rely heavily on cash-based transactions, while electronic payment platforms are often underutilized or inconsistently adopted.

Existing literature has identified several determinants of electronic payment adoption, including perceived usefulness, perceived ease of use, trust, system quality, and perceived risk. The Technology Acceptance Model (TAM) and the DeLone and McLean Information Systems Success Model have been widely applied to explain user acceptance of digital financial technologies. However, most prior studies have examined these constructs in isolation or within limited contextual frameworks, often neglecting the combined influence of technological quality factors, trust-related variables, and infrastructural constraints in developing economies such as Nigeria.

Additionally, the majority of research on the adoption of electronic payments using the TAM and DeLone & McLean models has been done in industrialized nations where infrastructure stability is taken for granted. Limited empirical attention has been given to developing economies such as Nigeria, where system adoption is constrained not only by behavioral perceptions but also by infrastructural deficiencies such as unstable electricity supply, weak internet infrastructure, and high transaction costs. This gap necessitates an integrated model that captures both behavioral determinants and structural constraints influencing adoption. This creates a gap in understanding how behavioral, technological, and structural factors jointly shape users' attitudes and intention toward electronic payment systems in a resource-constrained environment.

Against this backdrop, this study investigates the determinants of electronic payment systems adoption in Nigeria by integrating the Technology Acceptance Model (TAM) and the DeLone and McLean Information Systems Success Model. Specifically, the study examines the influence of system quality, service quality, perceived usefulness, and perceived ease of use, perceived risk, trust, and organizational reputation on users' attitudes and their intention to adopt electronic payment systems.

By doing so, the study extends existing theoretical models by incorporating infrastructural and contextual realities of a developing economy while providing a more comprehensive explanation of user behavior toward digital financial technologies. The findings are expected to offer valuable insights for policymakers, financial institutions, and technology providers seeking to enhance EPS adoption and advance Nigeria's transition toward a fully cashless economy.

Background

Value transfer methods have evolved over time, beginning with barter and moving on to banknotes, payment orders, checks, and eventually credit cards. (Asokan and others, 2000) This has ultimately developed into electronic payment systems that facilitate online trade.

According to current trends, electronic payment systems are now a crucial component of all international trade and commerce operations. Electronic payments range in value from less than $1 to transactions worth millions of dollars. African economies, who are still in the early phases of implementing electronic payment systems, have not yet experienced the full economic and operational impact of these systems, despite the advantages they have brought to other economies, such as the established western nations. (Ackorlie, 2009). As a result, businesses have missed opportunities and become less competitive because they have been reluctant to restructure and adjust to the new global economic reality. In underdeveloped nations like Nigeria, where cash-based transactions continue to be the most common form of financial exchange, electronic payment systems are uncommon, in contrast to the industrialized world. Considerably more institutional, infrastructural, and pedagogical investment is needed to implement such a system in a developing country where the majority of

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people are accustomed to cash and check-based transactions. This study's primary goal is to develop and assess a combined TAM–DeLone & McLean framework in order to look into the behavioral, technological, and infrastructural aspects that affect Nigerians' adoption of electronic payment systems. Specifically, the study seeks to examine the effect of system quality and service quality on users' attitude toward EPS adoption. To assess the influence of perceived usefulness and perceived ease of use on EPS adoption.

To determine the effect of trust, perceived risk, and organizational reputation on adoption behavior. To evaluate the role of infrastructural constraints in limiting EPS adoption in Nigeria and analyze the relationship between attitude and behavioral intention to use EPS.

By doing so, the study aims to generate empirical insights that can inform policy, improve system design, and accelerate the transition toward a cashless economy in Nigeria. This study is anchored on the Technology Acceptance Model (TAM) and the DeLone and McLean Information Systems Success Model. TAM explains user adoption through cognitive beliefs such as perceived usefulness and perceived ease of use, which influence attitude and behavioral intention.

However, TAM does not sufficiently capture system-level performance and infrastructural quality. Therefore, the DeLone and McLean model complements TAM by introducing system quality and service quality as determinants of user satisfaction and behavioral response. The integration of both models provides a holistic framework that captures both behavioral (demand-side) and technological (supply-side) determinants of electronic payment adoption in a developing economy context.

While TAM has been widely validated in financial technology research, its limitations in accounting for infrastructural and environmental constraints prevalent in developing economies like Nigeria necessitate its integration with a complementary model.

By accessing information system success across interconnected dimensions such as system quality, service quality, information quality, user satisfaction, and net benefits, the DeLone and McLean (2004) model overcomes these constraints. In the context of electronic payment systems, these dimensions capture the reliability of payment infrastructure, the responsiveness of service providers, and the accuracy of transaction information — all of which are critical determinants of whether Nigerian users derive sufficient value to sustain adoption and continued usage.

Together, the integrated framework offers a dual perspective that bridges demand-side behavioral antecedents from TAM with supply-side system and service performance dimensions from DeLone and McLean. This combination enables a multidimensional examination of electronic payment adoption in Nigeria, capturing individual perceptions, system performance, trust, and perceived risk within a single coherent analytical structure — producing findings that are both theoretically rigorous and directly relevant to industry and policy practice.

Research Model

Eight distinct components made up the study's research framework.The first three components were from Davis's Technology Acceptance Model (TAM) (1989), while the latter two came from the Delone & McLean framework (2004) along with a review of existing literature. The Eight constructs were: attitude, perceived ease of use, Trust, perceived usefulness, system quality, service quality, perceived risk, organizational reputation and intention to use electronic payment systems.

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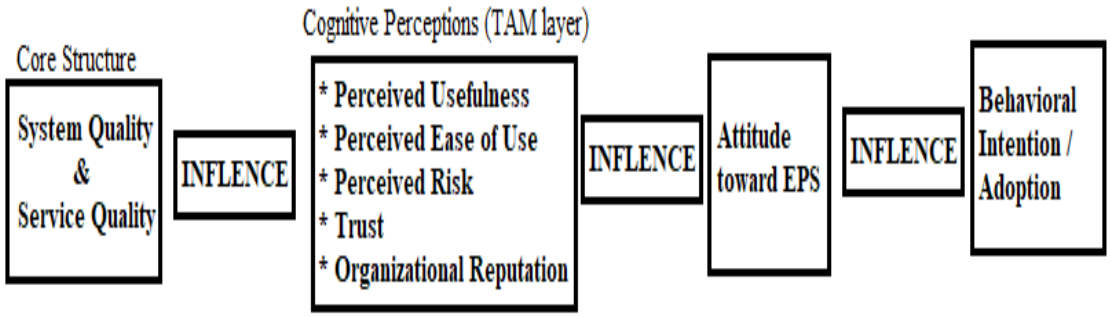


Figure 1: Proposed Research Model

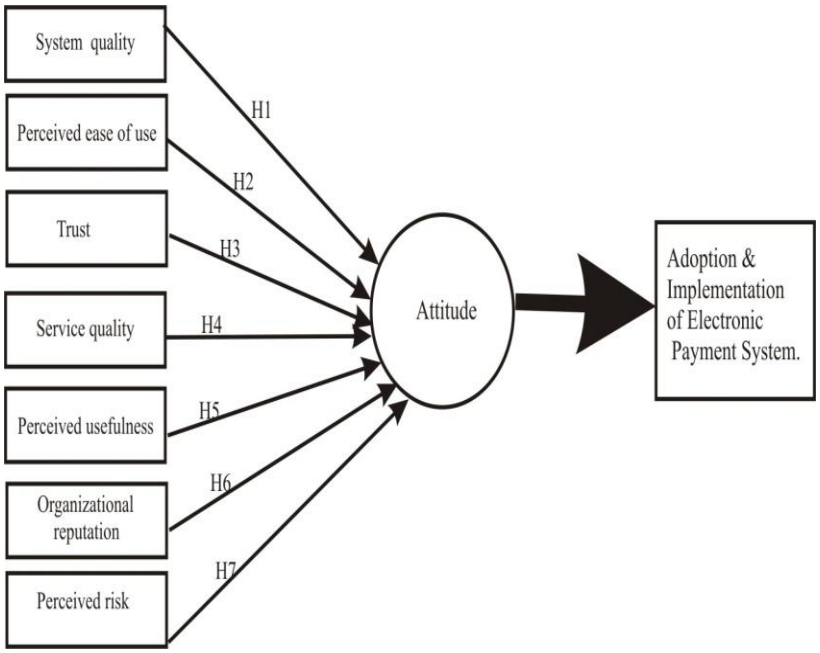


Figure 2: Research Model

Research Hypotheses

Based on a review of theories used in existing studies, a research framework was formulated consisting of the following constructs: system quality, service quality, Trust, perceived risk, organization reputation, perceived ease of use and perceived usefulness, attitude and Adoption and implementation of electronic payment system. The first seven constructs are independent variables while attitude is a dependent variable. Attitude is also an independent variable to Adoption and implementation of electronic payment system. Seven hypotheses are hereby formulated based on the constructs as follows:

System and service quality: According to DeLone and McLean, (2004) one of the most studied dimensions of IS success is system and service quality. It refers to measures of the information processing system itself, basically how well the hardware and the software work together. The concept of system quality has been defined in various manners within the information systems literature, with several key aspects being access convenience, system and service adaptability, the merging of system and service, and the time taken to respond (Bailey and Pearson, 1983); reliability, response time, ease of use, ease of learning (Belardo et al. 1982); and

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perceived usefulness of IS (Franz and Robey 1986). The first hypothesis, which is based on system and service quality construct is formulated as follows:

H_{01}: System qualities have no significant relationship with electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

H_{02}: Service qualities have no significant relationship with electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

Perceived Risk: Utilizing apps that require access to the Internet comes with certain dangers. Perceived risk in the field of electronic payment system can be defined as: "the potential for loss in the pursuit of a desired outcome of using e- banking services" (Pavlou, 2003 and Featherman and Pavlou, 2002). The perception of the relatively high risk associated with performing financial transactions via electronic means may hinder users (Kamel, Hassan, and Hilgert, 2003).The effect of perceived risk on adoption and post adoption of e-banking was supported by Jaruwachirathanakul and Fink, (2005); Kolodinsky et al. (2004); Lin (2008); and Vatanasombut et al. (2008). The second hypothesis, which is based on the perceived risk construct is formulated as follows:

H_{03}: There is no significant relationship between users Perceived risk and users' attitude towards the adoption of electronic payment system.

Organization Reputation: all the adoption model (like TAM, theory of planned behaviour (TPB), and theory of reasoned action (TRA)) were developed for studying technology adoption in developed countries, Nonetheless, the acceptance of technology in advanced nations could vary from that in emerging nations since the issues faced differ across distinct environments (Molla and Licker, 2005). Considering Technology-Organization-Environment (T-O-E) framework by Tornatzky and Fleischer (2009), three factors are important for any technology or innovation adoption diffusion process: technology context, organizational context and environmental context. Technology context includes both internal and external technologies applicable for firm. Organizational context includes resources (capital and human), organizational scope and size. Environmental context encompasses the immediate and secondary influences of rivals, industry groups, and government entities. Following this, Tan and Teo (2000) adopted organization reputation as one of the factors for determining adoption of electronic payment in Singapore. Their investigations revealed the need for organization reputation. Thus, the forth hypothesis, based on organization reputation construct, is formulated as follows:

H_{04}: There is no significant relationship between electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

Perceived ease of use: Perceived simplicity of use pertains to "the extent to which an individual thinks that employing a specific system would involve minimal effort" (Davis et al., 1989; Mathieson, 1991); Mathieson, 1991). The effect of perceived ease of use on adoption of and intention to continue using electronic payment services was supported in a number of studies (Adesina and Ayo, 2010; Al- Sukkar and Hassan, 2005; El-Kasheir and Salter, 2009; Kamel, Hassan, and Hilgert, 2003; Kolodinsky et al., 2004; Muniruddeen 2007; Ravi and Turban, 2007; and Vatanasombut et al., 2008). Thus, the fifth hypothesis, based on perceived ease of use construct is formulated as follows:

H_{05}: There is no significant relationship between electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

Perceived usefulness: perceived usefulness refers to "the degree to which a person believes that using a particular system would enhance his or her job performance"(Davis et al., 1989). A number of studies have

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found perceived usefulness to affect adoption of and intention to continue to use electronic payment services (Adesina and Ayo, 2010; Al-Sukkar and Hassan, 2005; Kamel, Hassan, and Hilgert, 2003; Kolodinsky and Hogarth, 2001; Kolodinsky, et al., 2004; Ravi and Turban, 2007; and Vatanasombut et al., 2008). The fifth hypothesis which is based on perceived usefulness construct is formulated as follows:

H_{06}: There is no significant relationship between electronic payment system adoption behavior and users' perceived usefulness of electronic payment system.

H_{07}: Trust has no significant on electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

METHODOLOGY

This study adopted a survey research design to systematically investigate the antecedents of electronic payment adoption across multiple dimensions in Nigeria. The survey approach was considered most appropriate given the study's objective of measuring users' perceptions, attitudes, and behavioral intentions toward electronic payment systems across a large and geographically dispersed population.

The study was conducted across four states in southwestern Nigeria — Osun State, Oyo State, Ekiti State, and Lagos State — selected to ensure geographic and demographic representativeness within the region, as these states collectively host a significant concentration of electronic payment users and financial service infrastructure in Nigeria. The diversity of these states in terms of urbanization, economic activity, and technology penetration makes them particularly suitable for a multidimensional analysis of electronic payment adoption antecedents.

The target population comprised electronic banking system users drawn from five major commercial banks operating within these states, namely Access Bank, Fidelity Bank, First Bank of Nigeria, Guaranty Trust Bank (GT Bank), and United Bank for Africa (UBA). These five institutions were purposively selected on the basis of their market dominance, extensive branch networks, and well-established electronic payment platforms across the study states, making them the most representative institutions through which to examine electronic payment adoption behavior in Nigeria. The aggregate target population across these five banks within the four study states was estimated at 350,000 electronic payment users, constituting the study's accessible population from which the sample was drawn.

This population was considered appropriate and sufficient for a multidimensional investigation of electronic payment adoption antecedents, as it captures users with varying levels of exposure, experience, and engagement with electronic payment systems — spanning mobile banking, internet banking, point-of-sale transactions, and USSD-based payment channels — across diverse institutional and geographic contexts within Nigeria.

Data collection instrument and Measures

Questionnaire was the data collection instrument adopted for the study owing to its usefulness and suitability for collecting qualitative data over a large number of respondents. It has equally been used successfully in similar studies (Obasi, 2001; Abid and Noreen, 2008; Ahmad and Buttle, 2008; Olatokun and Igbinedion, 2009; Adeyinka, 2009; Burnham, 2010; Olatokun and Owoeye, 2012) and the extent of its reliability has been found to be high. The structured questionnaire was divided into two sections. Section A measured demographic characteristics of customers. Data collected from the users include: age, gender, level of education and years of experience in using electronic payment system. Section B contained questions aimed at measuring the opinions of respondents on electronic payment system and services quality, perceived risk, perceived usefulness of electronic payment system, perceived ease of use of electronic payment system, organizational

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(bank) reputation, users' intention to use electronic payment services and their attitude towards its usage. A 4-point Likert scale was used in designing the questions (Strongly Disagree=1, Disagree=2, Agree=3 and Strongly Agree=4). Appendix 1 presents a copy of the questionnaire.

Content validity was established by pre-testing the questionnaire among electronic payment system users in Ibadan, Iwo, Lagos and Ilorin a Nigerian municipality using a randomly selected sample of 20. The results of the pre-test were used to modify the framing of some questions. Cronbach alpha reliability test was ran to determine the internal consistency of the multiple items scales. Cronbach's alpha was used in this study because every item was measuring an underlying construct (Leech and James, 2005). Table 2 presents the Cronbach alpha coefficient for the seven constructs.

Table 2: Reliability Test

Construct	Cronbach's Alpha	No. of Items
System quality	0.80	9
Service quality	0.75	6
Perceived Risk	0.78	5
Perceived Usefulness	0.78	4
Perceived Ease of use	0.92	5
Organizational Reputation	0.84	2
Trust	0.99	4
Intention to use	0.89	4
Attitude	0.77	5

Table 2 shows the Cronbach's alpha for the items that made up the constructs. The alpha values indicate that the items that formed them have reasonable internal consistency reliability – being from 0.75 and above. The items which were deleted had alpha values that were either less than 0.3 or higher than 0.9. According to James and Ramaseshan (2009) items with alpha value over 0.9 are probably repetitious and deleting such items would help in getting better results in further analysis.

Data collection and Analysis

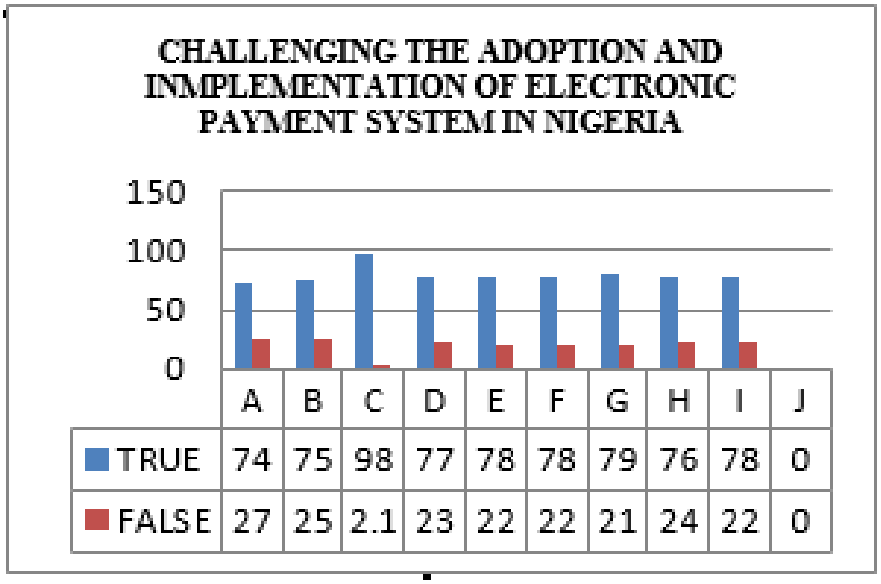
Data were generated directly from the respondents by the researchers and two assistants who were recruited and trained in data collection strategies and ethics. The two assistants were from Business Administration department, Bowen University, located in the heart of Iwo, part of the location of the study. Three thousand five hundred copies of the questionnaire were administered but a total of 3450 useable copies were returned and useful for data analysis giving 98.57% response rate. It was observed that most of the users who agreed to fill out the questionnaire were youths (19 – 30 years of age). This probably might due to the fact that they were more patient than the older respondents.

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Results of demographic profile of the respondents revealed that there were more male than female at 86.3% to 13.7%. Majority of the respondents were between the ages of 19 – 30 (60.5%), followed by those who were between the ages of 31 – 40 (20.16%). Apparently, a very small percentage (1.14%) of the respondents was 18 years of age or less, followed by (18.20%) who were above 50 years of age. Most of the respondents were students (69.30%), civil servants (20.5%) and those who claimed to be professionals (10.2%). It was found that most of the users had less than 5 years experience (82.03%), followed by users that had 6 – 10 years' experience of using electronic payment system (8.01%). Users having experience from 11 – 15 years were a (6.06%) followed by 16 – 19 years (3.9%). This result is in line with previous studies on electronic payment, internet banking, electronic commerce, technology acceptance and mobile banking where users tend to be young and have at least secondary school education (Adesina and Ayo, 2010; Abid and Noreen, 2008; Al-Sukkar and Hassan, 2005; Casalo, Flavian, and Guinaliu, 2007; Kamel, Hassan, and Hilgert, 2003).

Analysis of data was based on 3450 returned questionnaires. Responses from the questionnaire were coded, and Statistical Package for Social Sciences (SPSS) software was used for the analysis. Multi-level analysis was carried out on the data. At the first level, descriptive statistics (such as simple frequency table, mean, and standard deviation) was used to describe the demographic data about the respondents. Next, regression analysis was run to test the hypotheses with the level of significance fixed at 0.05.

RESULTS



KEY: A= High cost of maintaining, B= High cost of internet, C= Erratic electricity supply, D = Fear of interception of data, E= Constant breakdown of internet, F = Unreliable Internet access, G= Lack of technical know-how, H= System crash frequently, I= Out of date technology and J= Others.

On the issue of factors constraining the adoption and implementation of electronic payment system in Nigeria the respondents (97.9%) were mostly agree that erratic power supply is the major factor constraining the adoption and implementation of electronic payment system in the country followed by lack of technical know-how (78.9%), constant break down of internet facilities (78.4%), unreliable internet access (78.4%), out of date technology (77.9%), system crash (76.2%), high cost of internet (74.7%) and high cost of maintenance (73.5%).

This result is in line with previous studies on electronic payment system and e-commerce where the major constrain to the adoption and use is erratic electricity supply in Nigeria (Adesina and Ayo, 2010; Abid and

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Noreen, 2008; Al-Sukkar and Hassan, 2005; Casalo, Flavian, and Guinaliu, 2007; Kamel, Hassan, and Hilgert, 2003).

Test of Hypotheses

Results of the test of hypotheses are presented in Table 3 indicating the relationship between dependent and the predictor variables.

Table 3: Regression Analysis of the variables

Predictor Variable	β	**T**	**Sig. Level**
System Quality	.237	3.030	.000
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Service Quality	.410	4.862	.002
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Perceived Risk	.237	5.290	.000
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Organizational reputation	.267	2.485	.000
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**

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Perceived ease of use	.306	4.529	.001
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Perceived Usefulness	.119	2.447	.002
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Trust	.010	3.860	.000
Dependent variable : Attitude			
Predictor Variables	β	**T**	**Sig. Level**
Attitude	.296	4.281	.000
Dependent variable : Adoption and implementation of electronic payment system			

H_{01}: System qualities have no significant relationship with electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.

The results in Table 3 show that at $p<0.05$, there is a positive and significant relationship between System quality and users' attitude to use electronic payment system. ($p < .001$, $\beta = .237$, $t = 3.030$). Therefore, the null hypothesis was not accepted.

H_{02}: Service qualities have no significant relationship with

Electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system. The result in Table 3 shows that at $p<0.05$, there is a positive and significant relationship between service quality and attitude to use electronic payment system ($p = .002$, $\beta = ..410$ $t = 4.862$). Therefore, the null hypothesis was not accepted.

H_{03}: Users perceived risk have no significant relationship with electronic payment system adoption behavior and their attitude towards the adoption of electronic payment system.

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The result in Table 3 shows that at p<0.05, there is a positive and significant relationship between perceived risk and attitude to use electronic payment system (p = .000, β =.237 t = 5.290). Therefore, the null hypothesis was not accepted.

H_{04}: There is no significant relationship between users' perceived organizational reputation and attitude towards electronic payment system.

From Table 3, the results show that at p<0.05, there is a positive and significant relationship between users' perceived organizational reputation (p < .001, β =.267, t = 2.485) and their attitude to using electronic payment. Therefore, the null hypothesis was not accepted.

H_{05}: There is no significant relationship between users' perceived ease of use of electronic payment system and attitude towards using it.

From Table 3, the results show that at p<0.05, there is a positive and significant relationship between users' perceived ease of use of electronic payment services and their attitude to use it. (p=.001, β =..306, t=4.529). Therefore, the null hypothesis was not accepted.

H_{06}: There is no significant relationship between users' perceived usefulness of electronic payment and attitude towards using it.

The results in table 3 show that at p<0.05, there is a positive and significant relationship between users' perceived usefulness of electronic payment services and their attitude to use it (p =.002, β =.119, t=2.447).Therefore, the null hypothesis was not accepted.

H_{07}: Trust has no significant relationship on users' adoption of electronic payment system.

The results in table 3 show that at p<0.05, there is a positive and significant relationship between users' perceived Trust of electronic payment system and their attitude to use it (p < .001, β =.010, t=3.860).Therefore, the null hypothesis was not accepted.

Table 4: Summary of Values

Variable	B eta	p-value
Perceived Risk	0.237	p<0.05
Perceived Usefulness	0.119	p<0.05
Perceived ease of use	0.306	p<0.05
Organization reputation	0.267	p<0.05
System quality	0.237	p<0.05
Service quality	0. 410	p<0.05

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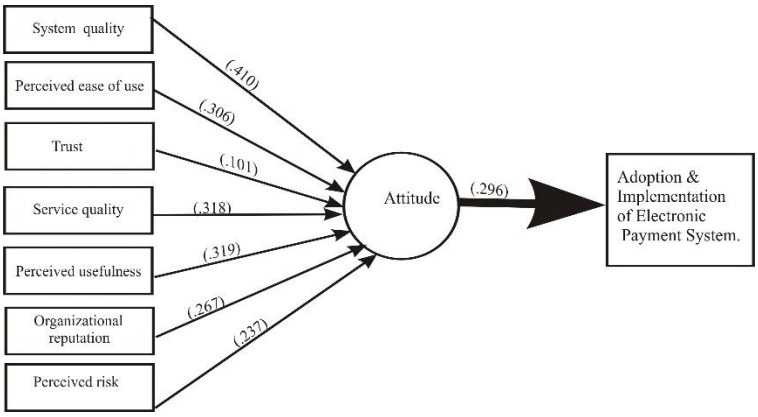
Table 5: Hypotheses results

Null Hypotheses	Decision
System qualities have no significant relationship with electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.	Rejected
Service qualities have no significant relationship with electronic payment system adoption behavior and users' attitude towards the adoption of electronic payment system.	Rejected
Users perceived risk have no significant relationship with electronic payment system adoption behavior and their attitude towards the adoption of electronic payment system.	Rejected
There is no significant relationship between users' perceived organizational reputation and attitude towards electronic payment system.	Rejected
There is no significant relationship between users' perceived ease of use of electronic payment system and attitude towards using it.	Rejected
There is no significant relationship between users' perceived usefulness of electronic payment and attitude towards using it.	Rejected
Trusts have no significant relationship on users' adoption of electronic payment system.	Rejected

Table 5 shows the results of the hypothesis tested against the p values that were obtained from the results above. These values are shown summarily below.

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Fig 2: Resultant Model



DISCUSSION

System quality, Organizational reputation, Trust and service quality was found to have a significant positive effect on the attitude towards using electronic payment system in Nigeria. The constructs had impact on attitude towards intention to use electronic payment system. This could be attributed to the many benefits derived from electronic payment system that have led users to prefer it to traditional way of payment. The significant contribution of system and service quality to the DeLone and McLean information success theory is consistent with previous research involving information system acceptance. DeLone and McLean (2004) found that system and service quality both affect use and user satisfaction, both being antecedents of individual impact, and this individual impact should ultimately affect organizational impact. Also, Olatokun and Owoeye (2012) found system and service quality to be significant with user satisfaction and individual impact. Wang and Young (2003) found the significant influence of system and service quality on the intention to use electronic payment system very high and endorsed the construct as a major determinant of users' intention to use new information system. Celik (2008) found that system and service quality had the principal influence on user's attitude to adopt electronic payment system.

The contribution of perceived risk was found to be positively significant in this study. Its significant contribution to information system acceptance has been reported in other studies. Tan and Teo (2000) found perceived risk as one of the factors influencing intentions to adopt electronic payment services while analyzing the adoption level of electronic payment services in Taiwan. Westland (2002) found perceived risk to be significant in his study and concluded that, "transaction risk occurs when online markets fail to assure that service will be delivered with adequate quality; slow response time after the Internet interaction leads to a delay of service delivery and causes customers to be unsure that the transaction was completed".

Perceived ease of use and Perceived usefulness also had impact on attitude towards using electronic payment system. This finding suggests that people adopt and use electronic payment system when the degree of its usefulness and Perceived ease of use would enhance their job performance. The significant contribution of the constructs to information success theory and TAM model is also emphasized in other studies. According to Hogarth (2001), both construct (perceived usefulness and perceived ease of use) is an important construct that influence customer use of electronic payment. He mentioned that by giving different options to the customer like mobile banking, SMS banking, bill payments, exchange rates, news and events can attract and influence customer to use electronic payment facilities. Moon and Kim (2001) used the construct to predict attitude in a survey of 152 graduate students of management in Korea. Their findings showed that perceived usefulness, Trust, Perceived ease of use and system and service quality were the key determinant of user acceptance of information technology. The results of Moon and Kim (2001) revealed that both construct had a more significant effect on attitude than perceived risk in the WWW context. It is imperative that key industry

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stakeholders or policymakers and practitioners of electronic payment system should therefore to examine the attributes of the model in the light of their local situation to see how they could improve on their deployment of electronic payment system.

CONCLUSIONS AND RECOMMENDATIONS

This study presented an experiential analysis of electronic payment system adoption and use in Nigeria, using DeLone and McLean Model of IS Success and technology acceptance model (TAM). Model construct for all the hypotheses were found to be significant related to the intention to continue, to use electronic payment system ($p < 0.05$). This provides support for all the hypotheses except socio-demographic variable (Age, Gender, Education and Occupation) which indicate that users need not to belong to any socio-demographic cluster before he/she can adopt and effectively use electronic payment system.

From the results of this study, it can definitively be said that using electronic payment system enables them to accomplish their tasks more quickly, its fits well with the way they like to manage their finance and finally, it is easy for them to become skillful in the use of the electronic payment system. With respect to the significant effect of perceived risk in this finding, it is important for the stakeholders should pay more attention to trust-building actions in the industry. The results of many surveys suggest incorporating trust-building measures into online customer relationships. Greater improvement on trust such as secured processing and transmission of highly confidential information can be helpful steps in increasing electronic customer retention. Customers' trust in the medium majorly stands for the bank's capability to securely transfer and store confidential personal information. In addition to this; Organization reputation again constitutes one of the major factors in operating account with a bank. Customers' perception of the organizations reputation is based on the organization solvency, reliability and ability of the banks in following due process which deplorers must effectively focused on. Doing this would enable their customers to continue to use electronic payment system services. Most research works on internet banking; electronic commerce and technological acceptance have validated the significance of perceived ease of use and perceived usefulness on customers' acceptance of electronic payment system. The finding in this work reveals that perceived ease of use and perceived usefulness are not only antecedent to electronic payment services acceptance, they are also factors to retain customers to the use of electronic payment system such as; Trust, system and service quality, organizational reputation and perceived risk. Based on the findings, government should provide necessary infrastructures that would be used in developing an effective and efficient electronic payment system in Nigeria. And to the adopters they should exercise patience and engage constructively with service providers when reporting system deficiencies to the channels of the service-providing institutions e.g. Banks, Insurance house, Super market etc. lastly, to the Regulatory authorities like CBN (Central Bank of Nigeria). They must stipulate standards for the banks and others deployers to follow to avoid making Nigerian a recipient of technologically obsolete digital payment infrastructure and to counter the legal threat and security posed to net banking and e-commerce, the necessary legal codes backing the industry must be established; this will enhance the growth of the industry

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