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Customers Perceived Risk and the Adoption of Electronic Banking in South-East Nigeria

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ABSTRACT

This research examined the relationship between perceived risk and the adoption of electronic banking in south-east Nigeria. Specifically, the study addressed the relationship between the seven dimensions of perceived risk (financial risk, performance risk, social risk, physical risk privacy risk, time risk and psychological risk) and the adoption of electronic banking in the south-eastern region of Nigeria. The study adopted a descriptive survey research design in collecting data; questionnaire and personal interviews were used in collecting primary data while documentary sources were used for secondary data. The population of the study was made up of electronic banking users in the five States of the south-east region of Nigeria. Since the populate is an infinite population, the Cochran general accepted formula for determining sample size for an infinite population was employed to determine the sample size of four hundred and ninety (490) electronic banking users. Descriptive statistics were employed to check the behaviour of the data and to ready the data for inferential statistics analysis. Some of the statistics were: mean and standard deviation; minimum, maximum, skewness and kurtosis. The data was analysed and hypotheses tested using the Structural Equation Model (SEM) and with aid of WarpPLS 6.0 software. Findings from the study showed that perceived risks in its seven dimension studied, has a significant relationship with the adoption of E-banking in Nigeria and thus recommended that Managers of financial institutions should to develop workable plans to eliminate the negative effect of perceived risk, by increasing acceptance of risk which could be done by offering training or simulations to customers to facilitate their use of internet banking.

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1. INTRODUCTION

The increasing advancement in the internet technology have largely impacted business operations and in particular brought about a paradigm shift in banking operations (Ayo et al, 2011). Electronic banking has become the order of the day especially with the high penetration of internet technology across the globe (Santouridis & Kyristi, 2014). This technology aids the service providers to offer ranges of financial services like; account balance inquiry, cash withdrawal, bills payment, fund transfers, standing order and so on, without necessarily interacting with the customers (Aldas-Manzano et al, 2009; Juwaheer et al 2012). This innovation has impacted positively on the lives of ordinary people more than any other technology. E-banking usage has presented opportunities with different dimensions to all groups of individuals and businesses (Agwu & Carter, 2014). Electronic banking aids banks to maintain profitable growth through the reduction of fixed costs and operation costs (Hernando & Nieto, 2007; Chung & Paynter, 2002). Electronic banking provides a lot of opportunities in terms of competitive edge. Specifically, it offers banks with the opportunity to develop a stronger and beneficial business relationship with their customers (Chemtai, 2016; Taiwo & Agwu, 2017). It also makes access to finances from banks attractive with funds appearing to be very available (Salehi & Alipour, 2010), and customers are given the opportunity to carryout banking transactions with peace of mind and at their convenience (Offei & Nuamah-Gyambrah, 2016). Prior to the introduction of electronic banking, transactions took a lot of time to execute which was frustrating. Now, services are rendered faster and more efficiently thereby saving time, as well as reducing human errors and staff overhead cost. Some other benefits resulting from e-banking are better customer satisfaction, expanded product offerings and extended geographic reach. These have aided in attracting more customers since the level of satisfaction is high and also helped in reducing the workload of employees thereby giving them the opportunity to put in their best to their roles in the bank. The benefits of e-banking can simply be summarized into increased bank productivity (Chemtai, 2016), increased comfort and timesaving, quick and continuous access to information, better cash management (Salehi & Alipour, 2010; Taiwo & Agwu, 2017) and improved customer experience (Onodugo, 2015).

Despite the benefits derived from e-banking however, evidences have shown that its adoption rate in Nigeria is still low, large groups of customers have shown reluctance to use e-banking services (Ezeoha, 2005; Odumeru, 2012; Salimon

et al, 2015). Measures such as the cashless policy by the Central Bank of Nigeria (CBN) have been promulgated to ensure compliance and massive adoption of e-banking. The CBN however noted that the cashless policy has become vital in promoting the use of electronic as means of transaction in order to make Nigeria a cashless economy in the nearest future. CBN stated that the policy is in reaction to the increasing dominance of cash in the economy with its attendant implications for cost of cash management to the banking industry, security, money laundering, among other huge cost (Ezuwore et al, 2014). The policy was endorsed by the Bankers Committee, which comprises the CBN, the Nigeria Deposit Insurance Corporation (NDIC), Discount Houses and the 24 commercial banks in the country. Under the policy, effective from June 1, 2012 daily cumulative withdrawals and lodgment in banks by individual would be limited to a maximum of N150,000, while daily cumulative withdrawals and lodgments by corporate customers is pegged at N1million. However, individuals and corporate organizations wishing to withdraw above the fixed amount would have to pay charges. Recently, the bankers committee meeting has become a forum where the Central Bank of Nigeria, (CBN), reveals its monetary policies, especially those affecting the banking industry. It was at one of these forums that the then governor of the Apex bank (CBN) announced new guideline on cash withdraws and deposits from banks.

In line with the Cashless Policy implemented in 2012, the apex bank (CBN) recently approved additional charges on deposits and withdrawals. A circular was issued to all the financial institutions in the country on Tuesday 17th September, 2019, titled; "Re: Implementation of the Cashless Policy". The details of the additional charges are as follows: Individual account; withdrawals above five hundred thousand naira (#500,000) will attract charges of 3%, while deposits will attract a 2% charge. For Corporate account: withdrawals above three million naira (#3,000,000) will attract charges of 5%, while deposits will attract charges of 3%. According to the Apex bank (CBN), the policy on cash-based transactions in banks, is aimed at reducing the amount of physical cash (notes and coins) in circulation in the economy thereby encouraging more electronic based transactions. Also very recently in December 2019, the Central Bank of Nigeria (CBN) gave a directive to all banks over bank charges, banks were mandated to reduce the charges applicable to electronic transfers, bank accounts, and Automated Teller Machines (ATM). They noted that the essence was to reduce the cost of banking services to customers and allow them embrace electronic channels.

These measures (cashless policy etc) being implemented by the government may not be successful until the factors that leads to the low adoption of e-banking is pinpointed and adequate measures are taken to cub their effect. Studies conducted globally reveals that perceived Risks are the major factors responsible for the low adoption of e-banking. (Cunningham et al, 2005; Lee, 2009). Also, studies conducted in Nigeria also identified perceived risks as the major factors that inhibit the adoption of e-banking (Aliyu & Bugaje, 2014; Tarhini et al, 2015; Salimon et al, 2015). Ndubuisi & Amedu (2018) noted that risk comes to play as a result strategic failure, operational failure, financial failure, market failure and disruptions, environmental disaster and regulatory violations. Majority of the studies conducted in Nigeria did not actually classify the particular dimensions or types of risks that actually lead to the low adoption of electronic banking. There seems to be a lot of inconsistencies as regards this area of research this presented a gap which this research study intends to bridge. Therefore, the thrust of the study is to critically examine the dimensions of perceived risks that influence the adoption of e-banking in Nigeria.

2. Literature Review

2.1. Electronic banking:

Banking in Nigeria has come a long way from the time of ledger cards and other manual filling systems (Offei & Nuamah-Gyambrah, 2016; Taiwo & Agwu, 2017). At that time, it was a tiring and stressful profession, with piles of bulky files, and customers waiting long hours on queues and may not achieve their objectives at the end of the day. Computerization in the Nigerian banking sector commenced in the 1970s. It was introduced by Society General Bank (Nigeria) Limited. Till the middle of the 90s, banks that were computerized used the Local Area Network (LAN) within the bank branches. The more technologically advanced banks employed the WAN by linking branches within cities while one or two employed intercity connectivity using leased lines (Salawu & Salawu, 2007; Ekwueme et al, 2012). In order to flow with the modern banking system brought about by changes in technology, the ATM was introduced into the Nigerian banking industry in 1989 as an electronic delivery channel and followed by the introduction of the GSM in 2001. Mobile banking is an innovation that has progressively rendered itself as a universal tool that has been adopted by several financial institutions and other sectors of the economy (Taiwo & Agwu, 2017). The rate of growth of electronic banking services in Nigeria can be traced to the decision of banks to make better use of e-banking facilities for the purpose of providing better services (Agwu & Murray, 2014). Meanwhile, electronic banking started officially in 1996 (Ekwueme et al, 2012). According to Ekwueme et al (2012) "The introduction of e-banking (e-payment) products in Nigeria commenced in 1996 when the CBN granted All States Trust Bank approval to introduce a closed system electronic purse called ESCA. In February 1997, Diamond bank introduced a "Paycard" that assumed an open platform with the authorization from Smartcard Nigeria PLC in February 1998. Smartcard Nigeria PLC is a company floated by a consortium of 19 banks to produce and mange cards called value card and issued by the member banks. Gemcard Nigeria Limited is another consortium of more than 20 banks that obtained CBN approval in November 1999 to introduce the "Smartpay" Scheme (Dogarawa, 2005). However, the number of participating banks in each of the two schemes had been rising since.

Despite these innovations, it is worthy of note that inadequate security for fraud prevention as well as high illiteracy rate had a negative impact on e-banking in Nigeria. In the same vein, the epileptic power supply and poor network connectivity services, is of great concern to the adoption of e-banking in Nigeria, as customers are at times finding it difficult to transact business at their own convenience, thereby negatively affecting the development of an efficient monetary transfer system. To ensure the efficient employment of electronic banking in Nigeria, basic infrastructure such as power, security and telecommunication should be strengthened (Onodugo, 2015). Apart from all this, the introduction of e-banking services in Nigeria have made transactions easier and more

convenient, a lot of bank transactions can be done without customer visiting bank halls; bills can now be paid and even phones can be recharged through the use of ATMs, POS, internet and mobile banking, and so on.

Banks have used electronic means to do banking operations, servicing both local and global customers. They also use electronic channels to receive instructions and deliver their products and services to their customers (Al-Smadi, 2012). However, the variety of services offered by banks over the electronic channel differ widely in content. (Azouzi, 2009; Al-Smadi, 2012) Electronic banking has been defined as the delivery of information or services by a bank to its customers, as an electronic link between bank and its customers in order to prepare, manage and control financial transactions (Lusaya & Kalumba, 2018). In the same vein, Daniel, (1999), sees electronic banking as the delivery of banking services to customers over internet technology. E-Banking is also defined as a way of delivering both new and traditional banking products and services directly to customers in an automated manner via electronic, interactive communication channels (Lusaya & Kalumba, 2018).

E-banking has been considered as a high-order construct that provides many distribution channels. Notwithstanding several people are confused about the concepts of e-banking and online banking, actually e-banking is a larger concept than online banking (Pham et al, 2013; Nguyen & Nguyen, 2017). In particular, e-banking includes the products or services of PC banking, TV banking, mobile banking, and the integrated channels with bank systems such as ATM, POS, e-wallet, e-payment (Nguyen & Cao, 2014; Nguyen & Nguyen. 2017).

Electronic banking services are beneficial to banks and customers. For banks; electronic banking helps them to achieve competitive edge and increase their market share. Also, using electronic services reduces operational costs, which are needed for traditional banking services (Jayawardhena & Foley, 2000; Al-Smadi, 2012). From the customers' view, Aladwani, (2001) found that electronic banking provides faster, easier and more reliable services to customers. However, customers are still cautious to the use of electronic banking services, because they are concerned with security issues, and they do not have sufficient ability to deal with the applications of electronic banking (Ayrga, 2011; Al-Smadi, 2012).

2.2. Perceived Risks

According to Zhang et al. (2015), the idea of perceived risk was firstly recognized in 1960 by Bauer. He stressed that consumers' purchase behaviour were likely to lead to hard-to-predict and even unpleasant outcomes. Therefore, consumers' purchase decision contains the uncertainty of the outcome, which was the initial concept of perceived risk (Zhang et al., 2015; Eugine & Tinashe, 2017). Lumpkin & Dunn (1990) pointed out that perceived risk research is one of the few research areas in consumer behaviour which can be said to have a research tradition. However, perceived risk is not the only explanatory factor of consumers' buying intentions. Perceived risk has been established as an integral part of the purchase decision (Lumpkin & Dunn, 1990; Eugine & Tinashe, 2017). Parumasur & Roberts-Lambard (2012) described perceived risk as the amount of risk that the consumer perceives in the buying decision and or the potential consequences of a poor decision. Thakur & Srivastava (2015) suggested that perceived risk is a construct that measures beliefs of the hesitation concerning likely negative consequences or dangers.

In the domain of consumer behaviour, perceived risk has formally been defined as a combination of uncertainty plus seriousness of outcome involved and the expectation of losses associated with purchase and acts as an inhibitor to purchase behaviour (Thakur & Srivastava, 2015; Eugine & Tinashe, 2017). Perceived risk refers to the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision (Khan & Chavan, 2015). The most common definition of perceived risk is the consumers' subjective loss likelihood, which means that any act of a consumer has a resultant consequences, which he cannot forestall with anything approximating certainty, and some of which are likely to be unpleasant (Eugine & Tinashe, 2017). Shin (2010) explains that perceived risk is considered a fundamental concept of consumer behaviour and is used often to explain customers' risk perceptions and reduction approaches. Peter & Ryan (1976) defined perceived risk as a type of subjective expected loss, Featherman & Pavlou (2003) also defined perceived risk as the possibility of loss when chasing a desired outcome. Lee (2009) viewed perceived risk in online banking as subjectively determined expectation of loss by an online bank user in deciding a given online transaction. Pavlou (2002) argued that perceived risks arises from the uncertainty that customers face when they cannot foresee the consequences of their purchase decisions. Cunningham (1967) stated that perceived risk consisted of the size of the potential loss (ie that which is at stake) if the results of the act were not favourable and the individual's subjective feelings of certainty that the results will not be favourable. The seven dimensions of perceived risk adopted for this study were defined below:

1. **Financial risk**: It is defined as the subjective expectation for monetary loss due to transaction error. According to Kuisma et al. (2007), many customers are scared of losing money while performing transactions or transferring money through the Internet. At present online banking transactions is devoid of the assurance provided in traditional setting through formal proceedings and receipts. Thus, consumers usually have difficulties in asking for compensation when transaction errors occur (Kuisma et al., 2007; Lee, 2009).
2. **Performance risk:** This refers to losses incurred through malfunctions of internet banking websites. Customers are often fearful that a collapse of system servers or disconnection from the Internet will happen while carrying on an online transactions because these situations may result in unexpected losses (Kuisma et al., 2007; Lee, 2009).
3. **Social risk:** refers to the possibility of negative responses from the consumers' social networks. As Littler & Melanthiou (2006) pointed out, the social status of the consumer who uses e-banking services may be affected because of the positive or negative perceptions of internet banking services by family, acquaintances or peers(Aldas-Manzano et al, 2008).
4. **Physical risk:** Refers to the risk to the buyer's or other's safety in using products (Jacoby & Kaplan, 1972). It is the subjective expectation for loss of safety due to

transaction failure. Safety loss could occur in diverse ways, for instance, loss of money incurred through failed e-banking transaction could lead to physical illness like headache or even more severe ones like High blood pressure.

5. **Psychological Risks**: The possibility that the service may lower the user's self-image (Jacoby & Kaplan, 1972). Customers often become anxious or stressed out in the verge of making transactions. For example, when a purchasing experience does not go down as expected, people tend to get nervous. This nervousness can be called psychological risk. (Demirdogen et al, 2010).
6. **Privacy risk:** This refers to the possibility that consumers' personal information (address, name, e-mail, phone numbers, etc.) will be disclosed (particularly) to direct marketers, either inside or outside of the company (Aldas-Manzano et al, 2008). Gerrard & Cunningham (2003) discovered that consumers worry that the bank may share their profiles with other companies or individuals in the banking group and thus use the information to try to sell additional products. Perceived fears of the divulgence of personal information and feelings of insecurity have a negative influence on internet banking services use (Howcroft et al, 2002; Aldas-Manzano et al, 2008).
7. **Time-loss risk:** Time loss risk is the perception that the adoption and the use of e-banking service will waste time. Moreover, in the instance of e-banking, the time risk may be associated to the time involved in handling erroneous transactions and downloading information (Jayawardhena & Foley, 2000; Aldas-Manzano et al, 2008).The time loss may be caused by poor network in areas that are backward technologically.

2.3. Perceived Risk and Adoption of Electronic Banking:

Tan & Teo (2000) integrated the diffusion of Innovation Theory (ID) and Theory of Planned Behaviour (TPB) to describe intention to use Internet banking. Their research study indicated that relative advantage, compatibility, trialability, perceived risk, perceived self-efficacy, and government support of Internet commerce are significant predictors. Brown et al (2003) discovered perceived relative advantage, trialability, the number of banking services needed, and perceived risk to be significant factors influencing mobile banking adoption. The risk construct in their research study is limited to information risk and security risks. Anchored on Theory of Planned Behaviour (TPB) and Technology acceptance model (TAM) literature, Luarn et al (2005) suggested an e-banking acceptance model and introduced the construct "perceived credibility" into the e-commerce context. Perceived credibility is considerably related to, but differs from, perceived risk and trust constructs. It refers to the level to which an individual perceives that adopting e-banking has no security or privacy threats. They discovered that perceived credibility has a stronger impact on behavior intention than other factors tested, though perceived usefulness and perceived ease-of-use are strong determinants; perceived self-efficacy and perceived financial cost, including fees paid for e-banking services and money spent on mobile devices and communication time, have some effect on behavioral intention. Kim et al (2009) and Kim et al (2008) approached the issue from a more focused perspective, which is the formation of consumers' initial trust in e-banking. Their studies revealed that initial trust is a significant predictor of mobile banking (an aspect of e-banking) usage intention. Factors that aid in the formation of initial trust comprises; the relative advantage of mobile banking over other banking channels, personal propensity to trust new technology and new business partners, and perceived structural assurance provided by mobile banking firms. Lee et al (2007) also examined the effect of trust on e-banking adoption and added a perceived risk construct under the canopy of Technology acceptance model (TAM). They suggested that adoption behavior was affected by trust, perceived risk, and perceived usefulness. Different trust dimensions (trust in bank, telecom provider, and wireless infrastructure) and different risk dimensions were studied. Their findings revealed that both trust and perceived usefulness have a significant, direct influence on adoption behavior while the impact of perceived risk is only mediated by trust. Based on recent research in e-banking which has confirmed perceived risk and trust as vital factors predicting adoption behaviour, this research therefore builds a conceptual construct to examine the following risk variables (financial risk, performance risk, social risk, privacy risk, physical risk, psychological risk and Time risk) and how they influence the intention to use or adopt e-banking.

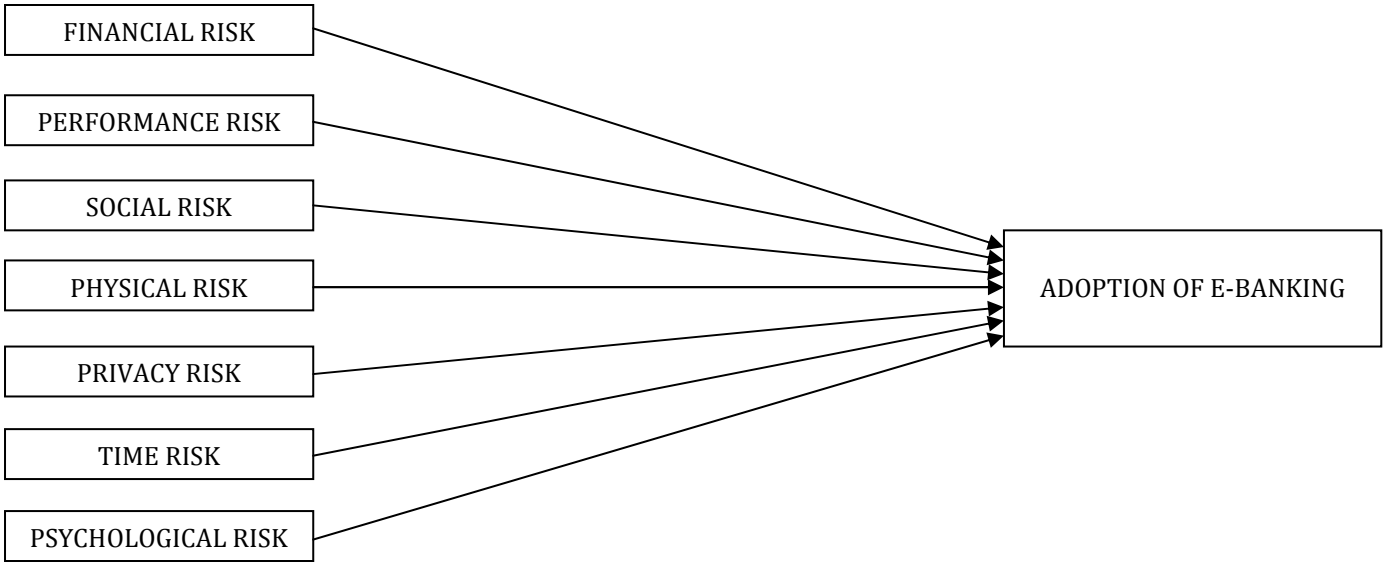
3. Research Model and Hypotheses Development

3.1. Research Model

The research work is anchored on the Perceived Risk Theory (PRT) which was first introduced by Bauer (1960) in his consumer behavior study. The theory has it that, consumers' perceived risk is caused by the fact that they face uncertainty and potentially undesirable consequences as a result of purchase or usage of products/services. In other words, the more risk consumers perceive, the less likely they will purchase/use a product or service (Bhatnagar, Misra & Rao, 2000, Mwencha et al, 2014). The perceived risk construct in this study is derived from the perceived risk theory and adapted to electronic banking context.

The core constructs of the theory have been decomposed by researchers into several perceived risk dimensions (Mwencha et al, 2014). For instance, Cunningham (1967) conceptualized six dimensions of perceived risk: performance, financial, opportunity/time, safety, social, and psychological risk, Jacoby & Kaplan (1972) identify five types of risk: financial risk, performance risk, psychological risk, physical risk, and social risk. Time risk is proposed as another form of perceived risk (Roselius, 1971; Brooker 1984), while Bhatnagar *et al.* (2000) argued that two types of risk exist when purchasing over the internet; product risk and financial risk. These risks are assumed to be present in all transactions but in varying degrees, depending on the particular nature of the decision (Taylor, 1974). Moreover, different individuals have different levels of risk tolerance or aversion (Bhatnagar *et al*., 2000; Mwencha et al, 2014). The study however modified the theory to adopt seven risk demission for the study of adoption of e-banking. The model is diagrammatically represented below.

Figure 3.1 Research Model in Diagram



3.2. Hypotheses Development

Based on the proposed research model, the following research hypotheses in the context of adopting electronic banking services are formulated:

- **H1:** There is a significant relationship between financial risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Performance risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Social risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Physical risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Privacy risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Time risk and the adoption of e-banking in Nigeria.
- **H1:** There is a significant relationship between Psychological risk and the adoption of e-banking in Nigeria.

4. Methodology, Results and Discussion

4.1. Methodology

The study adopted the descriptive survey research design with the aid of a five-scale likert questionnaire to elicit data from the respondents. The unit of analysis for the study was the individual electronic banking customer and hence the population of the study was made up of users of e-banking in the five States that make up the south east region of Nigeria. Since the number of users of e-banking in the five States that make up the south east region of Nigeria cannot be counted, the population for the study was therefore an undefined or infinite population. The Cochran general accepted formula for determining sample size for an infinite population was employed to determine the sample size for the proposed study. The formular was stated as:

$$Ss = \frac{Z^2P(1-P)}{C^2}$$

Z = Confidence Interval = 95% = 1.96

P = Percentage of Population = 50 = 0.5

C = Confidence Level = 0.05 = 0.1

Substituting the figures in the formular

$$Ss = \frac{1.96 \times 0.5(1-0.5)}{0.1}$$

Ss = 4.90 x 100 = 490

The researcher therefore adopted the stratified random sampling technique to distribute the questionnaire to the determined sample size. Descriptive statistics were employed to check the behaviour of the data and to ready the data for inferential statistics analysis. Some of the statistics were: mean and standard deviation; minimum, maximum, skewness and kurtosis. The data was analysed and hypotheses tested using the Structural Equation Model (SEM) and with aid of WarpPLS 6.0 software.

4.2. Results

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
EBA1	424	1	5	3.47	1.284	-.179	.119	-1.543	.237
EBA2	424	2	5	3.89	.770	-1.054	.119	1.250	.237
EBA3	424	1	5	4.28	.960	-1.880	.119	3.666	.237
FinR1	424	1	5	3.66	1.214	-.474	.119	-1.175	.237
FinR2	424	1	5	3.21	1.156	-.190	.119	-1.139	.237
FinR3	424	1	5	3.60	1.106	-.854	.119	-.119	.237
FinR4	424	1	5	3.45	1.208	-.471	.119	-.984	.237
PerR1	424	2	5	3.58	.921	-.689	.119	-.597	.237
PerR2	424	1	5	3.60	.919	-1.042	.119	.259	.237
PerR3	424	1	5	3.51	1.193	-.862	.119	-.358	.237
SoR1	424	1	5	3.02	1.312	.167	.119	-1.354	.237
SoR2	424	1	4	1.79	.960	1.070	.119	.134	.237
SoR3	424	1	5	2.58	1.381	.601	.119	-1.005	.237
PhR1	424	1	5	3.70	1.284	-1.038	.119	-.140	.237
PhR2	424	1	5	2.32	1.179	.608	.119	-.744	.237
PhR3	424	1	4	1.87	1.118	.997	.119	-.481	.237
PhR4	424	1	5	3.09	1.234	-.302	.119	-1.103	.237
PriR1	424	1	5	3.51	1.076	-.665	.119	-.549	.237
PriR2	424	1	5	3.74	.956	-1.409	.119	1.923	.237
PriR3	424	1	5	3.40	1.172	-.810	.119	-.340	.237
TiR1	424	1	5	2.42	1.174	.487	.119	-.878	.237
TiR2	424	1	5	2.91	1.308	-.130	.119	-1.396	.237
TiR3	424	1	5	3.58	1.237	-1.100	.119	.054	.237
TiR4	424	1	5	2.79	1.366	.335	.119	-1.279	.237
PsyR1	424	1	5	3.83	1.006	-1.448	.119	1.800	.237
PsyR2	424	1	5	2.75	1.197	.681	.119	-.746	.237
PsyR3	424	1	5	3.53	1.144	-.374	.119	-1.114	.237
Valid N (listwise)	424								

Table 4.1 present the information requested for each of the items used to measure the variables of the study. Two columns show the minimum and maximum and this simply indicates that the five point likert scale were used to measure the items.

The skewness value provides an indication of the symmetry of the distribution. Kurtosis on the other hand provides information about the "peakedness" of the distribution. Positive skewness values indicate positive skew (scores clustered to the left at the low values). Negative skewness indicate a clustering of scores at the high end (right-hand side of a graph). Positive kurtosis values indicate that the distribution is rather peaked. Kurtosis values below 0 indicate a distribution that is relatively flat (too many cases in the extremes). With reasonably large samples, skewness will make a substantive difference in the analysis (Pallant, 2016). The skewness of the items are mixed with very high values and very low values. Also the kurtosis show very high and very low or values below zero. This implies that there is a mix of peak and flat values in the items. This problem of distribution was overcome by the fact partial least squares (PLS) structural equations modelling was used in the analysis and the software used is the WarpPLS 6.0, which standardizes the raw data before analysis. Again the sample size for the study is 424 which quite large and in line with structural equation modelling of the partial least squares (SEM-PLS) methodology.

Table 4.2: Test of Hypotheses

Paths	Coefficient	S.E.	t-value	P-value	Decision
FinRisk→EBA	0.105	0.047	2.234	0.014	Accept
PerRisk→EBA	0.174	0.048	3.625	<0.001	Accept
SoRisk→EBA	0.138	0.048	2.875	0.002	Accept
PhyRisk→EBA	-0.266	0.047	-5.660	<0.001	Accept
PriRisk→EBA	0.277	0.048	5.771	<0.001	Accept
TimRisk→EBA	0.203	0.047	4.319	<0.001	Accept
PsyRisk→EBA	-0.191	0.046	-4.152	<0.001	Accept

Hypothesis One:
There is a significant relationship between financial risk and the adoption of e-banking in Nigeria. The path FinRisk→EBA has a coefficient (β) of 0.105, t – value of 2.234 and p – value of 0.014 which is much lower than the 0.05 margin of error hence we confirm H_1 and conclude that: there is a significant relationship between financial risk and the adoption of e-banking in Nigeria.

Hypothesis Two:
There is a significant relationship between performance risk and the adoption of e-banking in Nigeria. The path PerRisk→EBA has a coefficient (β) of 0.174, t – value of 3.625 and p – value of <0.001 which is much lower than the 0.01 margin of error hence we confirm H_1 and conclude that: there is a significant relationship between performance risk and the adoption of e-banking.

Hypothesis Three:
There is a significant relationship between social risk and the adoption of e-banking in Nigeria. The path SoRisk→EBA coefficient (β) = 0.138, t – value of 2.875 and p – value of 0.002 which is lower than the 0.01 margin of error. Based on this we confirm H_1 and conclude that: there is a significant relationship between social risk and the adoption of e-banking.

Hypothesis Four:
There is a significant relationship between physical risk and the adoption of e-banking in Nigeria. The path PhyRisk→EBA coefficient (β) = -0.266, t – value of -5.660 and p – value of <0.001 which is lower than the 0.01 margin of error. Based on this H_1 is accepted and we conclude that: there is a significant relationship between physical risk and the adoption of e-banking.

Hypothesis Five:
There is a significant relationship between privacy risk and the adoption of e-banking in Nigeria. The path PriRisk→EBA coefficient (β) = 0.277, t – value of 5.771 and p – value of <0.001 which is lower than the 0.01 margin of error. Based on this H_1 is accepted and we conclude that: there is a significant relationship between privacy risk and the adoption of e-banking.

Hypothesis Six:
There is a significant relationship between time risk and the adoption of e-banking in Nigeria. The path TimRisk→EBA coefficient (β) = 0.203, t – value of 4.319 and p – value of <0.001 which is lower than the 0.01 margin of error. Based on this we accept H_1 and conclude that: there is a significant relationship between time risk and the adoption of e-banking.

Hypothesis Seven:
There is a significant relationship between psychological risk and the adoption of e-banking in Nigeria. The path PsyRisk→EBA coefficient (β) = -0.191, t – value of -4.152 and p – value of <0.001 which is lower than the 0.01 margin of error. Based on this we accept H_1 and conclude that: there is a significant relationship between psychological risk and the adoption of e-banking.

4.3 Discussion of Findings

Findings from the analysis performed showed risk in its seven dimension used in this study, namely; financial risk, performance risk, social risk, physical risk, privacy risk, time risk and psychological risk, all had a significant relationship with adoption of E-banking in Nigeria. This however would explain the various reasons adoption of E-banking in Nigeria is still not overly embraced. People fear that they could lose money in the process especially when there is a malfunctioning of the E-banking equipment or a failed transaction. The time taken to recover such money from the bank is another discouraging factor as people often here that a failed transaction, if not automatically reversed immediately may take up to seven (7) working days to get reversed manually and in some rare and extreme case, thirty (30) working days. These however is a long period of time for someone who has urgent need of the money, and can lead the person to develop some sought of physical illness such as headache. People also get skeptical about E-banking as they feel that their private information may be made known to the public and hackers may then infiltrate their account with such information.

5. Conclusion and Recommendation

Perceived risk has been described as the amount of risk that the consumer perceives in the buying decision and or the potential consequences of a poor decision. It is a construct that measures beliefs of the uncertainty regarding possible negative consequences or dangers. Its effect on the adoption of E-banking is very important owing to the wide range of activities or services that can be offered to the public via E-banking. However, most customers may still be skeptical about E-banking because of these perceived risks. Identifying about seven demission of perceived risk to include, financial, performance, social, physical, privacy, time and psychological, the concept was broadly disintegrated and their various effect on E-banking examined.

Risk perception has been studied in customer behaviour for years, and the first reports in the marketing research began with Bauer in the 1960s. In the present study it was noted that the sense of loss, or the perception that something negative might happen, influences the decision to use E-banking. The results also indicated that the more customers perceive risks in the operation, the lower their intention to use internet banking will be. However, when the customer has higher levels of acceptance of risk, or when he or she interprets that such risks are not too high and accepts such risks, the perception of the risks does not have an effect on intention to use internet banking. The study therefore concluded that perceived risks in its seven dimension studied, has a significant relationship with the adoption of E-banking in Nigeria and thus recommended that Managers of financial institutions should to develop workable plans to eliminate the negative effect of perceived risk, by increasing acceptance of risk which could be done by offering training or simulations to customers to facilitate their use of internet banking.

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