

PERCEIVED SECURITY, BEHAVIOURAL INTENTION AND ACCEPTANCE OF INTERNET BANKING IN NIGERIA

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Abstract

This study examined how perceived security affects acceptance of Internet banking, with behavioural intention acting as a mediating factor in Nigerian deposit money institutions. Based on survey field data from 423 deposit money bank clients in Nigeria, this study was performed. With the aid of ADANCO 2.1.1, survey data were examined using the partial least square (PLS) method and structural equation modelling (SEM). The study offers evidence that behavioural intention and perceived security both positively impact whether someone will accept using Internet banking. Further investigation suggests that acceptance of using Internet banking and perceived security is somewhat mediated by behavioural intention. Finally, the results indicate that behavioural intentions are more strongly influenced by perceived security than acceptability of using the internet, but acceptance of using online banking is more strongly influenced by behavioural inattention. By demonstrating the links among the studied components in the setting of a developing country and by demonstrating the mediating role of behaviour intention between perceived security and online banking, the study contributes to perceived security, internet banking, and behaviour intention. Overall, the conclusions will serve as a springboard for further empirical discussions on the topic and serve as a roadmap for decision-makers when it comes to customers' intentions to utilize Internet banking.

Keywords: perceived security, behavioural intention, internet banking

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INTRODUCTION

Numerous innovations have been introduced in the banking sector, and they are becoming increasingly prominent due to their economic significance and increased consumer satisfaction (Eke & Singhry, 2020). While Nigerian culture and security concerns still support face-to-face interaction over Internet services, Internet banking service (IBS) is one such innovation in banking that has managed two crucial parameters: time and distance (Bashir & Madhavaiah, 2015). According to Okundaye et al. (2019), cultural beliefs in a nation, particularly Nigeria, have an impact on how well innovations are received. Mehta et al.'s study from 2019 also showed that cultural influence is crucial for technology acceptability. A void in the adoption of internet baking content results from these particular customers' continued adherence to this culture (Eke & Singhry, 2020). The advantages of Internet banking gives consumers the ability to send or transfer money, pay bills online, access online goods and services, make deposits, and have access to a 24-hour customer care desk (Ofori et al., 2022).

Internet banking increases customer satisfaction, bank profitability, and performance, but the adoption rate has been low due to security concerns, and this trend has continued. According to the

majority of clients (Luo et al., 2010; Zhao et al., 2010; Afshan & Sharif, 2016; Shiffu, 2016; Park et al., 2019; Ibrahim & Umar, 2021; Kumar et al., 2023), Internet banking lacks security, efficiency, convenience of use, confidence, and service quality. The need for this study has grown as security-related issues with Internet banking are discussed more frequently in the literature. However, there hasn't been much effort put into researching this variable in the context of deposit money banks (Aboobucker & Bao, 2018). However, the behavioural intention component dealt with the issue of customers' internal motivation to adopt the Internet.

Some Nigerian bank customers have bad intentions when it comes to using Internet banking. Technology acceptability is influenced by the behavioural intention component (Shiferaw & Mehari, 2019; Ifedayo et al., 2021). This behavioural intention problem is a component of the UTAUT paradigm, which Venkatesh et al. (2003) regard to be a factor in the adoption of technology. Despite the wide availability of technologies in Nigeria, Ayoade (2015) pointed out. Despite this, it is uncommon for these technologies to be used for banking services. Oladejo et al. (2018) suggested additional research on technological use behaviour in Nigeria. Kabir et al. (2017) also pointed out that there aren't many studies that have a clear understanding of the nature of behavioural intention on technology adoption in a Nigerian scenario.

The expansion of technology use for education in Nigeria will be hampered if customer behavioural intention is not examined (Ibrahim, 2018). The usage behaviour component takes into account issues that are connected to consumers' activities towards acceptance of the Internet in this study. In Nigeria, some bank customers utilise Internet banking in a negative way. The expansion of technology use for education in Nigeria will be hampered if customer behavioural intention is not examined (Ibrahim, 2018). The usage behaviour component takes into account issues that are connected to consumers' activities towards acceptance of the Internet in this study. In Nigeria, some bank customers utilise Internet banking in a negative way.

Previous research didn't take into account the mediation role of behavioural intention when discussing difficulties with perceived security and online banking. Without examining the impact of behavioural intention on acceptance of using Internet banking, Eke and Singhry (2020) and Sharma et al. (2020) looked at the effect of perceived security. This study is important to a wide audience because it offers empirical support in light of the lack of logical justifications to adequately explain the mediating influence of consumers' behavioural intentions on the adoption of Internet banking.

Few empirical studies on the topic were conducted in developing countries like Nigeria, with the majority of studies on perceived security, acceptance of using Internet banking, and customer behaviour intention being carried out in developed countries like the USA, UK, Spain, and Malaysia (Nwachukwu, 2013; Aboobucker & Bao, 2018; Sharma et al., 2020; Venkatesh et al., 2022). The environments of these countries are different from those of Nigeria in terms of people's propensity towards technology, literacy level, infrastructure foundation, culture, and behaviour, even though similar studies have been conducted in countries like the United States, the United Kingdom, China, and Malaysia and can be applied to Nigeria. According to Fock (2014), consumers behave differently depending on where they are from. In light of the difficulties raised above, this study aims to investigate how perceived security affects bank customers' willingness to use Internet banking in Nigeria: the mediating role of behavioural intention. The introduction of this paper is followed by a review of the literature in the second section, a description of the study's methodology in the third section, and then discussions of the sample and statistical technique. The study concludes with a review of the key findings and the results.

Literature Review

Unified Theory of Acceptance and Use of Technology (UTAUT)

When it comes to the possible predictors of technology acceptance, the UTAUT provides superior illumination, according to Rahi et al. (2019); Vega et al. (2019); Ifedayo et al. (2021). The UTAUT model is technology-focused and enables the analysis of any online infrastructure for usage by prospects. Al-Saedi et al. (2019) claim that the UTAUT primarily seeks to solve issues related to reluctance to accept new technologies. UTAUT was used to produce this as a result. The UTAUT has been praised as a helpful tool for managers to evaluate the likelihood of success when implementing new technologies, to understand key determinants of acceptance, and to be proactive in intervening with appropriate action plans targeting users who are believed to be less likely to adopt and use new technology systems (Venkatesh et al., 2003).

Perceived Security

Security, according to Ifedayo et al. (2002), is the protection of data and systems from unauthorised intrusions. This has to do with customers' perceptions of danger associated to the potential for unauthorised access to their online accounts and online transactions. According to Salisbury et al. (2009), it is the degree to which one believes that transferring sensitive information over the Internet is secure. Perceived security is the degree to which a customer believes using a particular Internet-based service will be secure (Shin, 2009). Using technology-based services is complicated by concerns about security and other issues (Bast, 2011). Trust, risk, and security should be significant new components, particularly in regard to payments and privacy-related studies.

Internet Banking

Internet banking is a service that enables consumers to carry out financial transactions via a secure website managed by the organisation, which might be a physical or virtual bank, credit union, or building society (Shumaila & Mirella, 2015). According to Rahi and Abd. Ghani (2019), it can also be characterized as a service provided by banks and other financial organisations that enables users to do banking-related operations online. Users of internet banking services can access their accounts and conduct all of their banking activities online without physically going to a bank (Eke & Singhry, 2020).

Technology acceptance is a multidisciplinary field that draws on information systems research and psychology to analyze consumers' attitudes towards new financial technology (Eke & Singhry, 2020; Sharma et al., 2020). According to the technology acceptance model, there are a number of criteria that consumers must take into account before deciding how and when to use a new technology (Davis et al., 1989; Rahi et al., 2019). Individual differences, such as personality traits, generalized beliefs, and predispositions towards technology, as well as demographics, may affect how quickly people adopt technology-based services (TBSs), such as Internet banking, according to research on technology adoption.

Behavioural Intention

Behavioural intention is defined as consumer readiness and likelihood to use a special piece of technology (Lin & Shiqian, 2018). The behavioural intention has been used as a dependent variable in many studies (Zeithaml et al., 2012), possibly because of its robustness in predicting the behaviour of customers which is the central objective of behavioural intention models (Ibrahim & Najjar, 2008; Venkatesh et al., 2022). Behavioural intention to use is a factor that measures the success of acceptance of the use of technology (Ifedayo et al., 2021).

Empirical Review

The original authors and other researchers have been motivated by the study of perceived security, technology acceptance and usage, using the UTAUT and behavioural intention to synthesise and evaluate the existing literature and state of research (Jahangir & Begum, 2008; Hacini et al., 2012; Taiwo & Downe, 2013; Williams et al., 2015; Venkateshet al., 2016; Rahi & Abd. Ghani, 2019; Rahi et al. Numerous research on the relationship between customer happiness and perceived service quality have been conducted using a variety of methods and theories. This study, on the other hand, focuses on the security issue surrounding the acceptance of Internet banking by Nigerian banking customers in North Eastern Nigeria. Despite the extensive usage of literature on service quality, there are few research in the Nigerian setting. Previous related studies in the context of service quality in money deposit institutions were evaluated.

Similar to this, Sharma et al. (2020) looked into how cultural values professed by users in Fiji affected people's behavioural intentions to use Internet banking (IB). A conceptual framework was developed, customer satisfaction and perceived risk constructs, as well as cultural moderators of individualism and uncertainty avoidance, were introduced to the Unified Theory of Acceptance and Use of Technology (UTAUT) model. This study uses a quantitative methodology to gather information from 530 participants. The suggested model was examined using structural equation modelling. The empirical results show that while perceived risk negatively affects IB usage intention, levels of performance expectancy, effort expectancy, social influence, and enabling variables positively affect IB adoption. It has been found that IB intention positively affects usage behaviour, which in turn influences customer satisfaction.

In a different study, Rahi et al. (2019) examined the factors that affect consumers' decisions to use Internet banking using the unified theory of acceptance and use of technology (UTAUT) and the quality of electronic services (e-services). Data for the study was collected in four weeks from customers of commercial banks using standardised questionnaires. A two-stage process that includes confirmatory factor analysis (CFA) and structural equation modelling (SEM) was used for data analysis. The results demonstrate that the integrated UTAUT model (performance expectancy, effort expectancy, social influence, and facilitating condition) has a substantial impact on user motivation to adopt Internet banking. The study proposed that assurance (trust) has the most influence among all technology and service quality factors. Additionally, performance expectancy and effort expectancy were found to be beneficial and significant mediator factors between website design, customer service, and customers' inclination to embrace Internet banking.

Aboobucker and Bao (2018) looked at the barriers to Internet banking adoption in Sri Lanka. This study incorporates concepts including website usability, perceived danger, perceived trust, and security and privacy. 186 genuine replies from Sri Lankan Internet banking users were gathered for the study. The method of structural equation modelling is used, and the hypotheses are verified. The results indicate that perceived trust and website usability are two potential roadblocks that have a significant negative impact on Internet banking users. Although security, privacy, and perceived risk are not particularly important, users are not overly concerned about them when accepting Internet banking.

In order to examine the influence of perceived risk and trust as mediating factors in the intention to utilise Internet banking in Thailand, Kanokkan and Tipparat (2018) used SEM. For this study, 505 respondents were recruited utilising a multi-stage selection method. The selection of the participants was based on their familiarity with Thai Internet banking. SEM, or structural equation modelling, was

utilised to evaluate the information supplied by the participants. The results show how service quality, perceived risk, and trust affect behaviour intentions to use Internet banking.

Security was found to have a substantial association with behavioural intention to use Internet banking services by Ali et al. (2018) in a survey conducted in Jordan using AMOS to evaluate factors impacting Jordanian customers' intention and adoption of Internet banking. According to Muhammad et al. (2017), security is a major worry and the main reason people avoid utilising technology-based services. Their research shows that the popularity of online banking has attracted criminals who prey on its users. This occurs despite banks providing consumers with thorough instructions as part of their campaign against Internet-based attacks.

In their 2016 study, Damghanian et al. examined the relationship between perceived security and acceptance of online banking among Iranian customers in terms of perceived risk and confidence in Internet banking. The acquired data were evaluated using the structural equations model (SEM). For statistical purposes, 395 randomly selected Bank Saderat Iran clients in Semnan were polled. According to the SEM results, the variables of perceived security and confidence in online banking had a significantly positive impact on the acceptance of online banking. Although perceived risk had no effect on whether or not online banking was acceptable, the results showed that trust in Internet banking was severely harmed.

The adoption of Internet banking in Nigeria may be influenced or hampered by a number of factors, according to Tarhini et al. (2015). To get a deeper understanding of the subject matter, an interpretive approach was used. The results indicate that customers' decisions to use online banking services are mostly influenced by security. Additionally, discovered to be influential elements were culture and religion. Security and dependability were identified as the two main trusts for Internet banking acceptance by Shumaila and Mirella (2015) in a study carried out in the UK using SEM LISREL. They suggested the inclusion of other psychographic variables to test the adoption process of Internet banking services.

Narteh (2015) found that convenience, dependability, ease of use, privacy and security, responsiveness and fulfilment are the key dimensions of ATM service quality. He used 530 customers from 15 banks and the Expectancy-disconfirmation model in his empirical study on the service quality and satisfaction of self-service technology in Ghana, the case of ATMs. These factors, in addition to security and privacy, have a big impact on client happiness.

The following hypotheses are developed based on the reviewed literature:

H₁. There is a positive significant effect of perceived security on behavioural intention.

H₂. There is a positive significant effect of perceived security on acceptance to use Internet banking.

H₃. There is a positive significant effect of behavioural intention on acceptance to use Internet banking.

H₄. Behaviour intention significantly mediates between perceived security and acceptance to use Internet banking.

Methodology

The study's research methodology was a survey. Users of deposit money bank branches operating in Nigeria's northeast make up the study's population of Internet users. Because the area contains the largest percentage of economically excluded people in the nation, this geopolitical zone was selected

(Enhancing Financial Innovation and Access [EFInA], 2018). Due to the high rate of financial exclusion in this area, Internet banking adoption will be lower than in other areas.

The sample size for the investigation was chosen using the Krejcie and Morgan (1970) sample size Table. This method yields an estimated minimum sample size of 384. The sample size was raised by 10% (to 384) to allow for non-responsive bias that might develop in the field. 423 people were chosen as the study's sample size as a result. Purposive sampling was employed in this investigation. Structured questionnaires with five Likert ratings, ranging from 1 for "Strongly agree" to 5 for "Strongly disagree," were utilised for the study's objectives. The survey questions used in this study were modified from those in earlier research that assessed the same variables. The tool created by Bast (2011), Mohammad et al. (2017), and Khalilzadeh et al. (2017) was utilised for security. The tool created by Sarker and Valacich (2010), Tsourela and Roumeliotis (2015), was used to accept Internet banking. The instrument for behavioural intention was developed using Zeithaml et al. (1996), Malhotra and McCort (2001), Santonen (2007), and Ladhari (2009) as references.

Both descriptive and inferential statistical approaches of data analysis were used in the study. With the aid of IBM SPSS version 26.0, descriptive statistics were employed to assess the demographic features of the respondents. The Advance Analysis of Composite (ADANCO 2.1.1) was used to measure the data and create structural models using partial least square structural equation modelling (SEM).

Result and Discussion

Respondent's Demographic Profile

The results in Table 1 show that 213 (52.9%) of bank clients, or the majority of respondents, are men. According to the results, 190 (47.1%) of the clients are female. This shows that there are more male respondents to this survey than female responders. 166 (41.2%) bank customers fell between the ages of 31 and 40, according to the results of the examination of the demographic profile with respect to age. In this study's sample of bank customers, those under the age of 30 make up 129 (32.0%), those between the ages of 41 and 50 make up 74 (18.4%), and those above the age of 50 make up 34 (12.2%). The majority of bank customers, based on all indications, are between the ages of 31 and 40. 241 (59.8%) of bank clients have a B.Sc./B.Tech./HND, according to Table 1's study of their educational backgrounds. 73 (18.1%) of the clients have an MSc, 49 (12.2%) have a WAEC/ND, 29 (7.1%) have a PhD, and the remaining 11 (2.7%) have various qualifications. Therefore, the largest group of bank clients used in this study are those with a B.Sc., B.Tech., or HND.

Table 1: Respondent'S Demographic Profile

Demographic Variable		Frequency	Percentage (%)
Gender	Male	213	52.9
	Female	190	47.1
		403	
Age	Below 30 Years	129	32.0
	31-40 Years old	166	41.2
	41-50 Years old	74	18.4
	50 Years and above	34	8.4
		403	
Academic	Waec/ND	49	12.2
Qualification	B.Sc./B.Tech./HND	241	59.8
	Masters	73	18.1
	PhD	29	7.2
	Others	11	2.7
		403	
Total		403	

Table 1: Respondent’s demographic profile

Structural equation modelling (SEM)

All of the constructs employed by the three research frameworks are reflective, and the structural equation modelling in this chapter is based on the methodology chapter's construct classification. The confirmatory factor analysis looks at how indicators and latent variables, which stand in for both observed and unobserved measurements, relate to one another. In the second stage of the SEM, called the structural model, relationships between dependent and independent variables are examined in order to evaluate hypotheses. Path analysis is another name for the structural model (Hair et al., 1998). Path analysis is another name for the structural model (Hair et al., 1998). The structural model and confirmatory factor analysis for this study are carried out using ADANCO version 2.1.1. This chapter will go into great detail on the measurement and structural model analysis as well as the discussion of the frameworks covered in the literature and methods chapter.

Measurement model

Confirmatory factor analysis is a statistical method used to show that a group of observed items (indicators) and their measured latent variable are related. Confirmatory factor analysis is a tool to evaluate the fitness of the measurement model as it prevents incorrect estimation when anticipating the strength, significance, importance, and purpose of the measured variables (Afthanorhan et al., 2014). Confirmatory factor analysis can be used to verify the measurement model's validity and reliability (Gudergan et al., 2008; Yi & Gong, 2013). However, as stated in the methodology chapter, the validity and reliability of indicators only apply to the reflective measuring paradigm and not the formative one. The absence of clear, unambiguous, and widely acknowledged standards for assessing the reliability of formative indicators, according to Coltman et al. (2008), is one of the major practical issues with the use of formative indicators. The confirmatory factor analysis will be conducted using multi-collinearity and outer weight significances, which are widely recommended by earlier research (Jarvis et al., 2003; Coltman et al., 2008; Hair et al., 2016) because all of these study constructs are

formative. However, all of the constructs used in this study are quantifiably measured in a straightforward manner (See Figure 1)

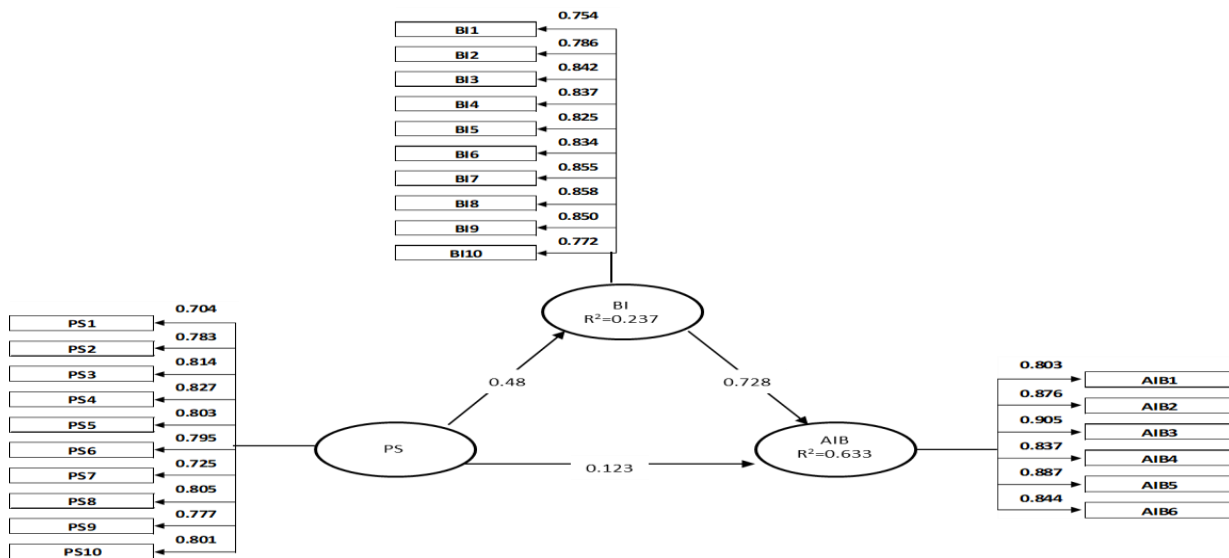


Figure 1: Graphical Representative of Measurement Model

The standard SEM analysis methodology requires that the scale validity and dependability of the model be confirmed. The adequacy of the measurement model and structural model is assessed by looking at the fitness index and coefficient of determination. The fitness statistic used to assess how well the model fits the supplied data is called Standardised Root Mean Residual (SRMR). The lower the SRMR score, which is typically advised to be below 0.08 (Henseler et al., 2016), the better the model fits the data. The value of SRMR obtained is 0.0596 for the saturated model and 0.0596 for the estimated model, which is much less than the acceptable value, according to the results in Table 2.

Table 2: Goodness of model fit

	Saturated Model			Estimated Model		
	Value	H195	H199	Value	H195	H199
SRMR	0.0596	0.0379	0.0398	0.0596	0.0379	0.0398
d _{ULS}	1.1546	0.4666	0.5149	1.1546	0.4666	0.5149
d _G	0.6398	0.2505	0.2699	0.6398	0.2505	0.2699

The composite reliability coefficients over the cutoff value of 0.70 were used to verify the model's dependability (see Table 3). As a result, each construct's item has a high level of internal consistency because all of the remaining items have composite loadings that are more than 0.70. The Average Variance Extracted (AVE), which is a component of a PLS-PM analysis, was used in the confirmatory composite analysis for convergent validity. After eliminating one item from behavioural intention, the results demonstrate that the majority of items have a standardised composite loading that is much higher than the minimum threshold of 0.70. After the two components were taken out of the model, none of the build AVE's fell below the cut-off of 0.50. This supports the convergent validity of the measurement model, as shown by the values in Table 3, which are all within the range of 0.6150 and 0.7383. As a result, their item's variance capture rate is higher than the error variance for these constructs.

Table 3: Construct Reliability and Convergent Validity

Construct	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_C)	Cronbach's alpha (α)	AVE
PS	0.9328	0.9410	0.9303	0.6150
BI	0.9439	0.9519	0.9431	0.6879
AIB	0.9304	0.9441	0.9287	0.7383

A popular technique in SEM analysis to assess discriminant validity is to compare the square root of AVE with construct correlation (Fornell & Larcker, 1981). As seen in Table 5, the square root of the AVE on the diagonal (bold values) is always higher than the construct correlation coefficients. Afthanorhan et al. (2019) claim that in order to assess multicollinearity problems, the absolute correlation between the constructs should be less than 0.85. Any measurement model is therefore presumed to be discriminant from other measurement models. Additionally, each item from each latent variable in the study model is different and differs significantly from other latent variable items, according to Hair et al. (2014) and Esfandiar et al. (2019). Fornell and Larcker's technique has nevertheless always been a subject of debate because it lacks discriminant validity when applied to PLS-PM (Farrel, 2010). The heterotrait-monotrait (HTMT) ratio of correlations is suggested for PLS-PM, as it is applied here (Henseler et al., 2015).

Table 4: Discriminant Validity: Fornell-Larcker Criterion

Construct	PS	BI	AIB
PS	0.6150		
BI	0.2374	0.6879	
AIB	0.2289	0.6218	0.7383

According to Henseler et al. (2016), discriminant validity demonstrates if the set of indicators for one construct differs from the set of indicators for another construct. The Heterotrait-Monotrait Ratio of Correlations (HTMT) was used to estimate this. According to Henseler et al. (2016), HTMT levels above 0.08 would be a breach of discriminatory validity; see Table 5. This supposition was confirmed because that wasn't the case. By evaluating the structural model, hypothesis testing can be carried out based on the measurement model's adequate results. Despite the dubious results of the assessment of the construct avoidance coping techniques, this construct will be evaluated carefully.

The HTMT ratio, which was produced by combining the heterotrait-heteromethod and monotrait-heteromethod, was acknowledged as one of the new methodological advancements in the PLS method (Carrion et al., 2016). The model evaluated these two techniques for various objectives. For the correlation between variables within the same construct, the monotrait-heteromethod is employed, and the heterotrait-heteromethod is used for the correlation between constructs in the model. The HTMT values of all constructs do not meet the maximum threshold of 0.85, according to the results obtained for each pair of the two constructs in the models (Zainol et al., 2019; Franke & Sarstedt, 2019); see Table 5. Additionally, the HTMT interface was used to calculate the bootstrap confidence interval using ADANCO 2.1.1's 4,999 resampling techniques. The results obtained for behavioural intention, perceived security, and acceptance of using Internet banking show that the correlation value is less than 1.0. As a result, the findings from these three criteria—Fornell-Larcker, HTMT.85, and HTMT interface—confirm the constructs' discriminant validity.

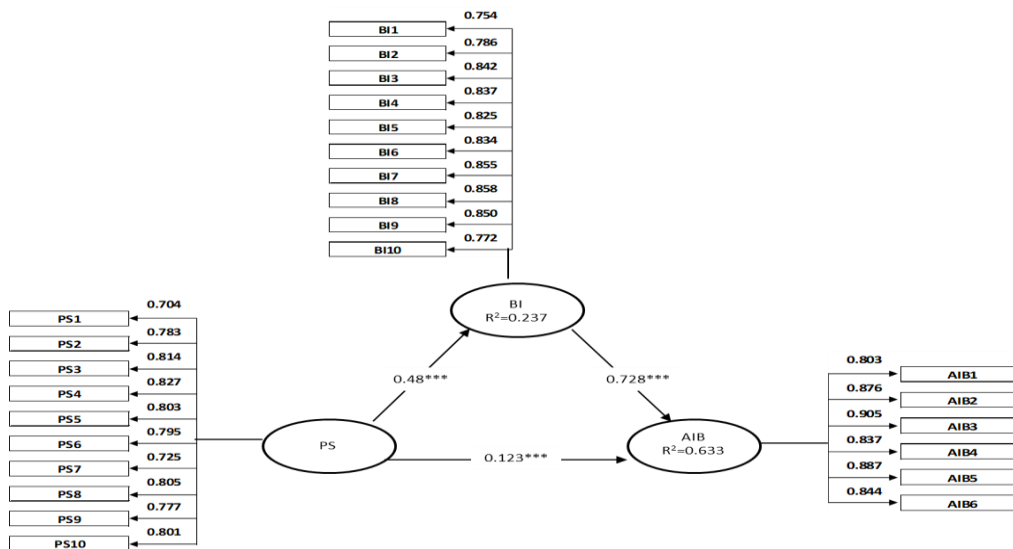
Table 5: Discriminant Validity: Heterotrait-Monotrait Ratio of Correlations (HTMT)

Structural Model

Construct	PS	BI	AIB
PS			
BI	0.5108		
AIB	0.5075	0.8428	

In the context of structural model practise, the PLS-PM is used to analyse the coefficient of determination, R2, and path coefficients. The PLS-PM approach requires a bootstrap procedure to calculate the standard error of path coefficients because the employed estimator, ordinary least squares, has limitations (McDonald & Ho, 2002; Ronkko & Evermann, 2013; Aimran et al., 2017). In order to improve the accuracy and consistency of results, resampling 4,999 times is suggested in light of the outcomes of studies by Henseler et al. (2016) and Sarstedt et al. (2019). Look at Figure 2.

Figure 2: Graphical Representation of Structural Model



Coefficient of determination

The overall variance of the model is explained using the coefficient of determination, R2. According to the R2 values, perceived security has been found to explain 0.2374 variance in behavioural intention and 0.6316 variance in acceptance of Internet banking, as shown in Table 6. Given that it is greater than 0.10, as stated by Falk and Miller (1992) and Hair et al. (2014), this value is at satisfactory levels. However, the moderate percentage of 76.26% and 36.84% unexplained variations suggests that more relevant factors outside the purview of this study can be investigated, boosting the explanatory power of the construct's behavioural intention and acceptability of using online banking. In addition to the evaluation of R2 value as the coefficient of determination, f2 effect size is a measure of the relative impact of predictive relevance on an endogenous construct and is measured as changes in R2 for each predictor construct. The highest f2 effect sizes are found for perceived security and behavioural intention. see Table 7

Table 6: Coefficient of determination

Construct	Coefficient of determination (R ²)	Adjusted R ²
BI	0.2374	0.2355
AIB	0.6335	0.6316

Table 7: Effect Overview

Effect	Beta	Indirect effect	Total effect	Cohen's f ²
PS -> BI	0.4873		0.4873	0.3113
PS -> AIB	0.1235	0.3549	0.4784	0.0317
BI -> AIB	0.7284		0.7284	0.1038

Path coefficients

The bootstrapping method was used to evaluate the significant impacts. The technique may generate a sizable number of bootstrapped re-samples from the original population and calculate the model parameters for each one (Henseler et al., 2016). Making statistical judgements and figuring out the confidence intervals of the path coefficients are both doable with the bootstrapping method (Henseler et al., 2016). A 95 percent confidence interval and t-values above 1.96 indicated significance. According to hypotheses H1 through H3, each construct would have a favourable, significant direct impact on willingness to use Internet banking. Regarding H4, a strong indirect influence of perceived value on acceptance of internet use was discovered.

Regarding H1, there is a direct significant relationship between perceived security and behavioural intention ($\beta = 0.4873$ $t = 13.0592$, $p = 0.000$). Based on this finding, Table 8's behavioural intention increases by 0.4873 for every unit with higher felt security. According to Table 8, H₂ there is a direct significant relationship between perceived security and acceptance of using Internet banking ($\beta = 0.7284$, $t = 23.4892$, $p = 0.000$). This relationship indicates that increasing perceived security by 1 unit will result in an increase in acceptance of using Internet banking by 0.1235. Furthermore, H3 demonstrates a significant direct relationship between behavioural intention and acceptance of using Internet banking ($\beta = 0.7284$, $t = 23.4892$, $p = 0.000$); see Table 8. This finding demonstrates that an increase in behavioural intention of one unit will result in a 0.7284 rise in acceptance of using Internet banking.

Significant direct effects were found for perceived security on acceptance to use internet banking ($\beta = 0.1235$, $t = 4.0002$) with a p-value of 0.0000. Similarly, significant indirect effects were found for perceived security on acceptance to use internet banking ($\beta = 0.3549$, $t = 23.4892$) with a p-value of 0.0000; this therefore indicates that there is partial competitive mediation effects of behavioural intention on the relationship between perceived security and acceptance to use internet banking see Table 8.

Significant direct effects were found for perceived security on acceptance to use Internet banking ($\beta = 0.1235$, $t = 4.0002$, $p = 0.000$). As shown in Table 8, there are partial competitive mediation effects of behavioural intention on the relationship between perceived security and acceptance to use Internet banking ($\beta = 0.3549$, $t = 23.4892$, $p = 0.000$). Similar significant indirect effects were found for perceived security on acceptance to use internet banking ($\beta = 0.3549$, $t = 23.4892$, $p = 0.000$).

Table 8: Effects Inference

Effect	Original coefficient	Standard bootstrap results				Percentile bootstrap quantities				
		Mean Value	Standard error	t-value	p-value (2-sided)	p-value (1-sided)	0.5%	2.5%	97.5%	99.5%
PS -> BI	0.4873	0.4896	0.0373	13.0592	0.0000	0.0000	0.3919	0.4161	0.5625	0.5843
PS -> AIB	0.4784	0.4804	0.0350	13.6774	0.0000	0.0000	0.3916	0.4095	0.5485	0.5702
BI -> AIB	0.7284	0.7279	0.0310	23.4892	0.0000	0.0000	0.6410	0.6633	0.7864	0.8038
PS -> BI -> AIB	0.3549	0.3566	0.0332	10.6780	0.0000	0.0000	0.2748	0.2934	0.4227	0.4491

Discussion, conclusion and recommendation

The acceptance of using Internet banking is considerably and favourably impacted by perceived security, according to a study on the effect of consumer behaviour intention as a mediator between the two. The findings of this study are in line with those of studies by Damghanian et al. (2016) and Hacini et al. (2012), which found that felt security had a significant and positive influence on behavioural intention. The study's findings indicate that perceived security has a large and positive impact on Nigerian bank customers' desire to use Internet banking. According to past studies by Jahangir and Begum (2008), Ali et al. (2018), and Zhang et al. (2019), perceived security has a positive and significant influence on people's decision to use Internet banking. This study supports those findings.

Similarly, findings indicate a considerable and advantageous influence of behavioural intention on adoption of internet banking. The results of this study are consistent with those of Tarhini et al. (2015), Aboobucker and Bao (2018), Tipparat (2018), Rahi et al. (2019), Eke and Singhry (2020), Kanokkan and Sharma et al. (2020) and other studies that found a significant and favourable effect of behavioural intention on acceptance of using internet banking. The results also showed that the relationship between perceived security and acceptance of using internet banking is significantly mediated by behavioural intention. This finding is consistent with Ifedayo et al. (2021) who affirmed that behavioural intention as significant mediator.

The study's findings indicate that perceived security has a large and positive impact on Nigerian bank customers' desire to use internet banking. According to past studies by Jahangir and Begum (2008), Ali et al. (2018), and Zhang et al. (2019), perceived security has a positive and significant influence on people's decision to use internet banking. This study supports those findings. This study also contributes to the body of literature previously available in UTAUT by taking into account the behavioural intention in regard to internet banking in Nigerian deposit money institutions. This is due to the paucity of studies and data to support them that look at how perceived security affects behaviour and internet banking in Nigerian deposit money banks. This research therefore contributed to the body of information already available in UTAUT by raising consumer awareness of the significance of expected behaviour towards internet banking activities among Nigerian deposit money banks.

This study proposes that consumers should modify their readiness and beliefs towards online banking in order to improve its acceptance in Nigerian deposit money institutions. The behavioural intention component relates to the main objective of the customer. The customer's major objective is to have a specific attitude towards internet banking. The results of the study suggest that behavioural intention somewhat mediates the association between acceptance of using internet banking and perceived security. The study's findings indicate that deposit money bank customers' adoption of internet banking is influenced by their readiness towards using the service.

The acceptance of online banking in Nigerian deposit money banks is significantly influenced by behavioural intention, according to this study's investigation of the mediating role of behavioural intention. The behavioural intention is essential in predicting online banking due to its mediation quality. Customers in Nigeria must transition to internet banking from traditional banking procedures. Implementing "sustainability marketing," which prioritizes technology for crucial financial transactions, can help with some of the modifications.

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