

# Inhibitors of Electronic Banking Platforms' Usage Intention in Deposit Money Banks: Perspectives of Elderly Customers in Developing Economy

Marcellus Amaechi Chukwu<sup>1</sup>, Edwin Chukwuemeka Idoko<sup>2\*</sup>

<sup>1</sup>Department of Marketing, University of Nigeria, Enugu Campus, Enugu, Nigeria

<sup>2</sup>Department of Marketing, University of Nigeria, Enugu Campus, Enugu, Nigeria

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\*Corresponding author: Edwin Chukwuemeka Idoko

## Abstract

Paradigm shift in terms of patterns of conducting financial transactions in Nigeria is growing exponentially. Online channels are increasingly witnessing boom and silently eroding offline-based financial transactions. Notwithstanding appreciable progress regarding e-banking, elderly bank customers continues to engage hugely in physical presence in bank branches in order to perform financial transactions. Research focusing on constraining factors of e-banking channel usage intention among elderly (60+) bank customers in developing setting where e-banking is still somewhat nascent are few. This study, therefore, aims to deepen understanding regarding those factors that inhibit elderly banking customers' intention to use e-banking channels. The study used a sample of 384 respondents determined statistically. A combination of judgemental and snowballing sampling techniques were applied in respondents' selection. Questionnaire was used to collect data from the participants who volunteered to take part in the survey. Partial Least Square structural equation modelling (PLS-SEM) technique was utilised in data analysis. The research found that performance expectation, social influence, technology complexity, perceived security, and technophobia have significant-positive relation with attitude; also, attitude correlates positively with intention to use e-banking channels among the surveyed respondents. However, perceived trust and facilitating conditions have insignificant relations with attitude and usage intention. The practical implications of the findings and directions for future study were putforward.

**Keywords:** Inhibitors, Electronic banking platforms, Elderly customers, Deposit Money Bank, Usage Intention, Nigeria.

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## INTRODUCTION

The ascendancy of electronic banking (EB) channels lately in Sub-Saharan Africa (SSA) banking landscape has radically upended overall pattern of conducting banking businesses [1,2]. Clearly, EB is gradually replacing previously manual-based bank traditions [3,4]. Bank operations that initially require the presence of customer in bank premises are increasingly handled remotely. EB tends to confer on deposit money banks (DMBs) extra competitive advantages regarding ease of customer attraction and account management [5]. E-banking is a system where banking operations are carried out on the electronic platforms through the use of laptops, computer desktops, smartphones, Ipads and other electronic gadgets with or without bank customers' physical presence at bank premises or designated locations [6].

Notwithstanding the progression in e-banking, its adoption across demographics is less uniform [7].

Omotayo [6] argues that elderly people have historically been late adopters to the world of technology compared to their younger customers. Also, earlier studies document slow adoption of technology-based innovations among elderly customers especially in developing climes [7, 8, 9, 10]. However, studies that specifically examine restraining factors regarding elder customers' e-banking usage in deposit money banks are limited. In most developing nations including Nigeria, the elderly constitutes huge market segment often neglected by many managers. Understanding constraints discouraging elderly customers from transiting to EB may be significant in developing strategies and tactics aimed at co-opting the cohort (elderly) into emerging e-banking platform family. A contemporary investigation from less developed nation such as Nigeria is therefore urgent in order to provide deeper understanding regarding those constraints that limit involvement of elderly customers in e-banking.

## REVIEW OF RELATED LITERATURE

### Theoretical Underpinnings

This study is underpinned by Theory of Acceptance Model (TAM) [11] and Unified Theory of Acceptance and Use of Technology (UTAUT) [12]. These theories have in their different ways advanced the understanding of the technology acceptance by offering explanations into the human behavior and attitude towards innovations. TAM as posited by Davis has two variables-perceived usefulness (PU) and perceived ease of use (PEOU) to measure usage and/or adoption. The model seems to suffer some degree of weakness in terms of its application concerning inhibiting factors of innovation such as e-banking platforms usage especially elderly consumers. The model did not incorporate factors like security and privacy which appear most important to the users of the technology platforms. In order to address the gaps in the theories, this study extends and integrates TAM and UTAUT to improve understanding of militating factors in e-banking usage among elderly customers.

### Perceived Trust and Attitude

In internet banking, trust can be defined as the psychological condition that directs the customer's intention to make transactions using internet banking with the expectation that the bank will conform to its obligations, regardless of whether or not the customer possesses the capacity to supervise or control the bank's actions [13]. Trust is fundamental as it provides foundation and shapes customers' attitude and long-term relationship [14]. Transparency concern is pronounced in e-banking business since customers hardly control the process from start to completion. For instance, often, automated teller machine (ATM) or point of sale terminal (POS) debit customer's account without dispensing cash and/or immediate reversal of debit entry erode trust reposed in the e-channel and perhaps weakens attitude toward e-banking platforms. Trust potentially stimulates favorable customers' reliability and predictability and facilitates quick and consistent customers' transition to e-banking channels across demographics and climes [15, 16, 17, 18].

Conversely, research demonstrate that mistrust deters interest and intention to embrace online channels for financial transactions [29]. Pavlou and Fygenson [20] submit that the relationship between trust and consumer attitude rests on the notion of perceived consequences. Mistrust of e-platforms changes belief system of bank customers particularly elderly with little computer knowledge, which in turn, influence attitude and usage intention [21,22,23]. Consequently, this study hypothesis thus:

**H1:** Trust significantly inhibits elderly customers' attitude towards e-banking platforms in DMBs in Nigeria.  
Technology complexity and attitude

Cheung [24] defined complexity as the degree to which an innovation is considered relatively difficult to understand and use and found it to negatively influence the adoption of innovations. Complexity constrains innovation adoption rate whereas easy-to-use technologies directly impacts on the adoption of the internet-based platforms [25]. Cooper and Zmud [26] pointed out that a system that requires less technical skills and operational efforts will be more likely to be adopted and in turn generate better performance. As elderly bank customers often perceive e-banking platforms as complex and technical, unfavourable attitude or aversion are usually triggered [27, 28, 9]. This means that if an elderly customer of a deposit money bank perceives an electronic banking platform to be complex and technical, his mindset and belief may be negatively affected. He may not wish to approach anybody for help or guidance. Confusing web pages and complex steps discouraged positive disposition toward online banking by people over the age of 65 [29]. Complexity of the e-platforms will likely bring about dissatisfaction which will affect his attitude negatively.

Accordingly, this study postulates as follows:

**H2:** Technology Complexity significantly constrains elderly customers' attitude toward electronic banking platform in DMBs in Nigeria.

### Perceived Security and Privacy and Attitude

Wang et al. [30] state that perceived credibility consists of privacy and security. Yousafzai et al. [31] defined security in banking as customers' perceptions of the degree of protection against fear of fraud, account information privacy and provision of sophisticated hardware and software for business operations over the internet. There are increasing reportage of different types of frauds associated with e-platforms which instill fear in user of e-platforms especially the elderly. Omankhanlen [32] opines that the upsurge and nefarious activities of ATM fraudsters are threatening electronic payment system in the Nigeria banking sector. According to Adegboyega and Tomola [33], the number of reported frauds on the alternative banking channels (ABC) such as e-banking has been on the increase over the years. The number of reported frauds on ATM and POS increased from 1539 in 2012 to 11,180 in 2016. This represents 626% growth in just five years. Similarly, the number of reported frauds on online and web platforms increased from 314 in 2012 to 3,374 in 2016 representing 974% growth in number of fraud incidents in just five years. In a statement, NDIC reported a 56.3 per cent jump in reported cases from 16,751 in 2016 to 26,132 in 2017, resulting in the loss of N2.37 billion."

In Nigeria banking context where security and privacy of e-banking remains challenging, elderly customer with limited computer and internet knowledge

may cultivate less favourable disposition toward e-banking. Along this line of thought, extant research findings have shown that privacy and security influence strongly customers' attitude towards e-banking platforms regardless of age [34, 35, 6], security has been widely identified as factors influencing the acceptance and use of IB [13, 36, 37, 38, 39, 40].

The elderly DMB's customers are worried that their money and personal data are safe where millennial including banks staff that are somewhat in a hurry to acquire money will not divulge their account details to fraudsters, robbers and possibly kidnappers. Furthermore, Ramayah and Ling [41] found that Internet banking users are very concerned about security and majority of them are using Internet banking for accounts enquiry only due to the credibility concern. The study result is supported by Sathye [42] who found that Australian consumers are not adopting Internet banking because they are concerned about safety and security of transactions over the Internet. Based on this narration, this research hypothesis that:

**H3:** Perceived security and privacy significantly inhibit elderly customers' attitude towards e-banking platforms in deposit money bank in Nigeria.

#### **Facilitating Conditions and Attitude**

From the perspective of e-banking, facilitating conditions (FC) are those conditions, materials, equipment, resources and opportunities that encourage customers to engage in financial transactions using e-banking platforms. Venkatesh et al. [12], interpret FC as the degree to which an individual believes that the needed resources are available to complement with the expected opportunities, thereby leading to utilisation of the system. In Nigeria, FC such as power supply, access to computer systems, internet connectivity and stability constrain e-banking engagements particularly among the elderly who may be unwilling to be overstretched in quest for internet connectivity or power available locations.

The present difficulty inherent in accessing the FCs potentially affect elderly customers' attitude toward e-banking channels. Attitude is formed by not only what we see, but what we experience in life. Mixed findings trail earlier studies in the extant literature regarding how FC influence customers attitude towards e-banking [43, 8, 6]. Tarhini et al, [44] state that customers' behavioral intention to use and actual usage of e-banking were significantly and positively influenced by FC. Nevertheless, Alalwan et al. [45] and Mbokoh [46] found that FC did not have significant relationship with customers' behavioral intention and use of e-banking. This study, therefore, speculates that:

**H4:** Facilitating conditions significantly influence elder customers' attitude towards e-banking platforms in deposit money bank customers in Nigeria.

#### **Technology Phobia and attitude**

Technophobia refers to the fear, dislike, distrust or reluctance to use advanced technology or complex electronic devices, especially computers [47]. Most elderly customers (60+) look at computer as strange innovation; consequently, caution, anxiety, fear and possibly avoidance and negative attitude tend to characterise their relations with computers-based transactions including e-banking channels [48].

A plethora of 60+ customers still prefer traditional banking method wherein they visit the bank branches for financial transaction over the counter [6]. According to Uche [47], there is a significant but negative relationship between customer age and the extent of technophobia. This means that older customers are less likely to interact with information and communication technology (ICT) and the younger the customer, the higher the level of interaction. On the basis of this narrative, this study hypothesis that:

**H5:** Technology-phobia significantly inhibits the attitude of the elderly DMB customers towards electronic banking platforms in Nigeria.

#### **Performance Expectation and Attitude**

According to Arenas-Gaitan et al. [49], performance expectation (PE) is the degree to which using a technology will provide benefits to individuals in performing certain activities. The elderly bank customers seem to have that impression that the e-banking platforms are complex and too technical for them and as such it will not offer them the expected results instead it will create more challenges and some security challenges for them. This negative mindset potentially may most likely translate into unfavourable disposition regarding e-banking. Niehaves and Plattfaut, [7] opine that expected performance of the internet strongly influence intention to use e-banking technology among elderly customers. Performance expectation of e-banking channels affects consumer attitude either in a positive or a negative way depending on the perception of an individual [50, 51, 52] since they have the perception that the complex technology may not achieve the desired result. The study results indicated that performance expectancy significantly influence the consumers' behavioral intention in the mobile commerce environment [53]. Additionally, extant research demonstrates that PE has a strong positive influence on attitude [54], however, a number of others research reports insignificant relationship with attitude [55]. This study therefore postulates that:

**H6:** Performance Expectancy has positive and significant correlation with the attitude of elderly DMB customers towards e-banking platform in Nigeria.

### Social Influence and Attitude

Social influence refers to individual believes that his relationship with friends and associates motivates/demotivate him to act in a particular fashion. People form their attitudes based on their beliefs that another person whom he sees as important or superior to his life has a better idea or better influence. Social Influence (SI) is defined as the extent to which an individual perceives that people who are important to him/her believe that he/she should use a particular technology [12]. Social influence shows the importance of reference group which among others are the family and friends on electronic banking platforms acceptance and adoption. In the diffusion of innovation theory of Rogers, the stage on the adoption ladder shows the level at which a consumer accepts the product in question. The decision to adopt an innovation often means abandoning a prior one, and non-adopters have their decision to reject an innovation socially confirmed [56]. According to Kotler [57] personal influence is the effect one person has on another's attitude or purchase probability. Social influence seems to be a driving force that changes one's attitude to the direction one believes the influence is coming from. The elderly bank customers who appear not in a hurry to accept technology will likely be influenced in the negative direction by their social class. The younger bank customers will most likely be influenced differently to the use of technology. Kotler [58] opined that personal influence is more important in the evaluation stage of the adoption process than in the other stages. It has more influence on late adopters than early adopters. It also is more important in risky situations. There seems to be a disagreement on the effect of SI on technology adoption, why some studies have it that it has a negative influence [59, 10], others have a different opinion [38, 60], this study therefore need to investigate the impact of social influence on the elderly DMBs customers towards e-banking platform usage in Nigeria. Hence the seventh hypothesis.

**H7:** Social influence (SI) has significant and positive relations with the elderly deposit money bank customers' attitude towards the usage of the electronic banking platforms in Nigeria.

### Attitude and Behavioural Intention:

Attitude is defined as an individual's personal belief or behavior towards a given situation. Customer's attitude is a behavioral occurrence as displayed by an individual in reaction to a particular event or occasion. According to Jahangir et al [61] Consumer's attitude is argued to have a strong, direct and positive effect on consumers' intention to actually use new information system. Customer attitude is an influential disposition since a favorable or unfavorable attitude will most likely determine the customer's reaction. If a customer has a positive attitude towards the usage of e-platforms, it is most likely that the actual usage will occur and vice

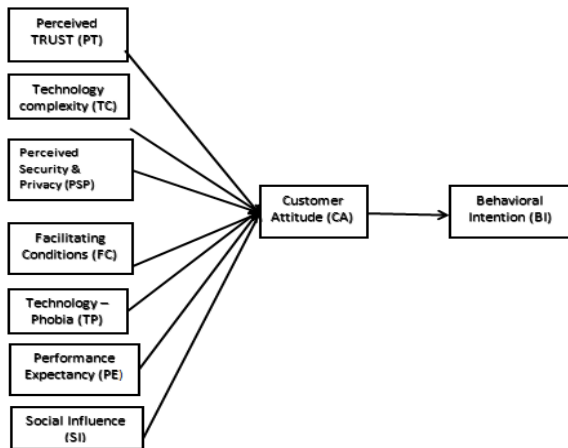
visa. Adesina et al [62] opined that electronic banking users' attitude varied in terms of perceptions regarding product information, form of payment, delivery terms, service offered, risk involved, privacy, security, personalization, visual appeal, navigation, entertainment, and enjoyment. It is one's belief that leads one to form an attitude which propels him to act in a certain way. The elderly seems not so savvy and appear to be among the late adopters/laggards in the adoption process since they are always careful especially when money is involved. Regarding age, Ainin et al. [63] find a negative and significant relationship between age and IB adoption, probably because the elderly is more resistant to change and have a negative attitude toward using IB services [64]. Customers clearly say that the Internet service channel offers potential, but even users feel that it does not deliver much value yet compared to the problems of operating on the Internet [65].

Behavioural intention to use a technology is the measure of ones' ability or willingness to accept the technology (e-banking platforms). It is no gain saying the fact that when an individual indicates his preparedness to use something, such individual has agreed to accept that such an item is good for him. BI reflects how hard a person is willing to try, and how motivated he or she is, to perform the behavior [66]. Attitude is proved to have some level of influence on the individual's intention [67, 68]. This means that if an individual has a negative attitude towards the e-banking platforms, such an individual will most likely develop a negative intention towards the usage of the platform. According to Shih and Fang [69], attitude correlates significantly with intention; however, subjective norms does not. This finding aligns with the postulation of theory of reasoned action (TRA). Intention represents desires, wishes or willingness or self-instructions to behave in a certain way, and captures the motivational factors that influence behavior [66].

Behavioral intention has been confirmed to be influenced by attitude [70, 71, 72, 73, 74], actual usage and/or adoption is also strongly influenced. However, some researchers submit that intention does not translate to ultimate usage, rather, the intention need to be nurtured to the level when it can have a strong force to push for actual usage [6]. Based on the ongoing debate, the following hypothesis is advanced thus:

**H8:** Elderly customers' attitude influence behavioural intention to use e-banking platform in deposit money banks.





**Fig-1: Preliminary Conceptual Model of Inhibitor E-banking**

## METHODOLOGY

### Population and Sample

The population of this study is defined as the elderly individuals aged ((60 years +) who are account holders in the deposit money banks in Enugu metropolis. This study is adopting a survey research design. The need to define the age bracket that constitute the elderly for the purposes of this study is premised on the fact that the Nigerian constitution holds that age sixty years and above as the senior citizens of the society.

### Sample Size

Since sampling frame of mall shoppers generally and by extension Muslim mall shoppers do not exist presently, sample size of 384 respondents was statistically determined using unknown population approach as suggested by Omais [75]. Snowballing and judgemental sampling techniques were weaved in selection of respondents for this study. Snowballing approach was chosen because in Nigeria, obtaining proper records and documentations of elderly is extremely difficult. Judgemental approach helps the researchers to assess the fit of potential participants based on filter criteria.

### Questionnaire Design

Validated measurement items relating to restraining factors of e-banking platforms usage intention were adopted from previous studies [77, 70, 77, 12, 7, 78, 79, 80]. However, some adjustments were made on some of the measurement items to take care of peculiarities of study setting since majority of the studies were done in more developed Western nations. A pilot survey was conducted on thirty-eight elderly bank customers who were removed from the main study survey in order to eliminate response bias. The questionnaire items were rated on a five-point Likert-scale score ranging from one (1) = strongly disagreed to five (5) = strongly agreed. The questionnaire items were tested for both face and contented validity through the

use of two research professional in marketing and two experienced customer care officers in different DMBs in Enugu. The questionnaire was structured in two sections thus: section A assesses demographic variables of the respondents while the section B measures e-banking platform inhibitors.

**Table-1: Respondents' Profile**

Description	Frequency (n =152)	Percent (%)
<b>Gender</b>		
Male	83	55
Female	69	45
<b>Marital Status</b>		
Single	10	7
Married	102	67
Divorced	19	12
Widow	21	14
<b>Age (years)</b>		
60 - 65	21	14
66 – 70	62	41
71– 75	50	33
>75	19	12
<b>Educational Status</b>		
WASC/GCE	18	12
Diploma/NCE	34	22
B.Sc./HND	61	40
Master	29	19
Doctorate/ Fellowship	10	7
<b>Gross monthly income (₦)</b>		
< 150,000.00	51	33
150001 – 200,000.00	53	35
200,001 – 250,000.00	33	22
>250,000.00	15	10

Data analysis and results presentations

Fifty-five (55%) of the respondents are male. Concerning respondents' marital status, 67% are married and 12% are divorced. From the age angle, majority representing 41% falls within 66 -70 age bracket whereas 12% are aged above 75 years. Regarding respondents' education, most participants accounting for 40% have either B.Sc. degree or Higher National Diploma; only 7% has either doctorate or fellowship qualifications. Majority of the respondents' (35%) gross monthly income ranges between 150001 – 200,000 Naira. The respondents that earn monthly gross above 250,000.00 is 10%.

### Questionnaire Items

In this research, the means revolves around 3.31 – 4.47 indicating that the participants in the survey has positive assessment of the eight constructs employed in this investigation. The summarised descriptive statistics is shown in Table 2.

**Table-2: Descriptive Statistics**

Measurement Items Deviation	Mean	Standard
Perceived Social Influence ( $\alpha = 0.745$ )		
People close to me suggest that I should avoid using e-banking platform	3.67	1.195
E-banking platforms deprive me direct interaction with bank staff	4.36	0.741
Family members disapprove e-banking platform usage for me	3.76	1.161
Technology Complexity ( $\alpha = 0.743$ )		
The information on bank website is not so simple to understand	4.13	0.940
E-banking applications are less straightforward to follow in transactions	3.86	1.032
E-banking services/platforms sometimes present some technical problems	4.28	0.665
Perceived Security ( $\alpha = 0.844$ )		
I am worried about my privacy on the e-banking platform usage	4.47	0.763
I am scared about the security of my information with bank	4.34	0.891
I feel unsafe to release my credit card details through e-banking platforms	4.51	0.681
Technophobia ( $\alpha = 0.822$ )		
I feel restless if I must use the e-banking platform for my transactions	3.93	1.057
I am often afraid to use computer for transactions in banks	3.66	0.866
I Feel nervous to use e-banking platforms in bank transactions	3.68	1.105
Performance expectancy ( $\alpha = 0.733$ )		
It is possible that network connection may fail while using e-platforms	4.66	0.586
I see the e-platforms as not capable to perform my banking transactions	3.71	1.071
Use of e-banking will decrease my control over my financial matters	3.85	1.047
Facilitating conditions ( $\alpha = 0.803$ )		
I find it difficult getting help from others when using e-banking platforms	4.06	0.863
E-banking platforms are in compatible with other techniques I use.	3.76	1.016
I rarely have the resources I need for the e e-banking platform usage	3.96	1.003
Perceive trust ( $\alpha = 0.865$ )		
I do not believe that banking staff will not divulge my financial details	4.38	0.962
I feel unsecured putting my personal information in bank website	4.31	0.978
I doubt bank network to be reliable for my bank transactions	4.28	0.999
Customer attitude ( $\alpha = 0.852$ )		
I think that using e-banking platform is not good for me	3.46	1.179
I will not rely on the use of e-banking for my financial transactions	3.80	0.944
I think that using e-banking platforms are unpleasant to me	3.31	1.111
Behavioural intention ( $\alpha = 0.871$ )		
I will prefer using bank branch to e-banking channels for my banking	3.90	0.954
I do not wish to operate my bank accounts through e-banking platforms	3.52	1.139
I do not intend to use e-banking platforms in near future	3.34	1.191
I will unlikely use e-banking platforms because someone will monitor it	3.82	0.999

**Measurement Model Check**

Following the tradition in assessing reflective model, the measurement model was examined by checking composite reliability (CR), indicator loadings, average variance extracted (AVE), convergent and discriminant validity [81, 82]. The convergent validity was determined by assessing construct loadings/indicators and composite reliability to ensure that they exceed 0.6 threshold [83]. The measurement

item loading falls within 0.605 – 0.911 on their respective factors showing the items converged well. According to Peng and Lai [84], convergent validity exists when AVE is  $\geq 0.5$  and CR exceeds  $> 0.7$  concerning the measured constructs. As evident in Table 3, CR values were  $> 0.7$  (ranges from 0.746 – 0.865); AVE ranges from 0.525 – 0.681. Clearly, the presence of convergent validity and CR is established.

**Table-3: Accuracy Statistics**

Construct	Indicator		Cronbach Alpha	Composite Reliability (CR)	AVE
Perceived Social Influence (PSI)	PSI1	0.842	0.745	0.766	0.544
	PSI2	0.605			
	PSI3	0.871			
Technology Complexity (TC)	TC1	0.710	0.743	0.769	0.526
	TC2	0.618			
	TC3	0.740			
Perceived Security (PS)	PS1	0.832	0.844	0.851	0.658
	PS2	0.904			
	PS3	0.682			
Technophobia (TP)	TP1	0.710	0.822	0.829	0.619
	TP2	0.791			
	TP3	0.852			
Customer Attitude (CA)	CA1	0.886	0.852	0.846	0.648
	CA2	0.725			
	CA3	0.795			
Performance Expectancy (PE)	PE1	0.641	0.723	0.746	0.525
	PE2	0.850			
	PE3	0.858			
Facilitating Conditions(FC)	FC1	0.664	0.803	0.816	0.600
	FC2	0.872			
	FC3	0.774			
Perceived Trust (PT)	PT1	0.855	0.865	0.865	0.681
	PT2	0.794			
	PT3	0.825			
Behavioural Intention (BI)	BI1	0.716	0.871	0.874	0.637
	BI2	0.859			
	BI3	0.911			
	BI4	0.685			

AVE means Average Variance Extracted.

**Discriminant Validity check**

Peng and Lai [84] posit that discriminant validity can be assessed by matching square-root of AVE against the correlations between the constructs. Inter-construct correlations should not be greater than

the square-root of the AVE [83]. From Table 4, values along the diagonal of the correlation matrix which represents the square-root of the AVEs exceed the inter-construct correlations thereby affirming discriminant validity.

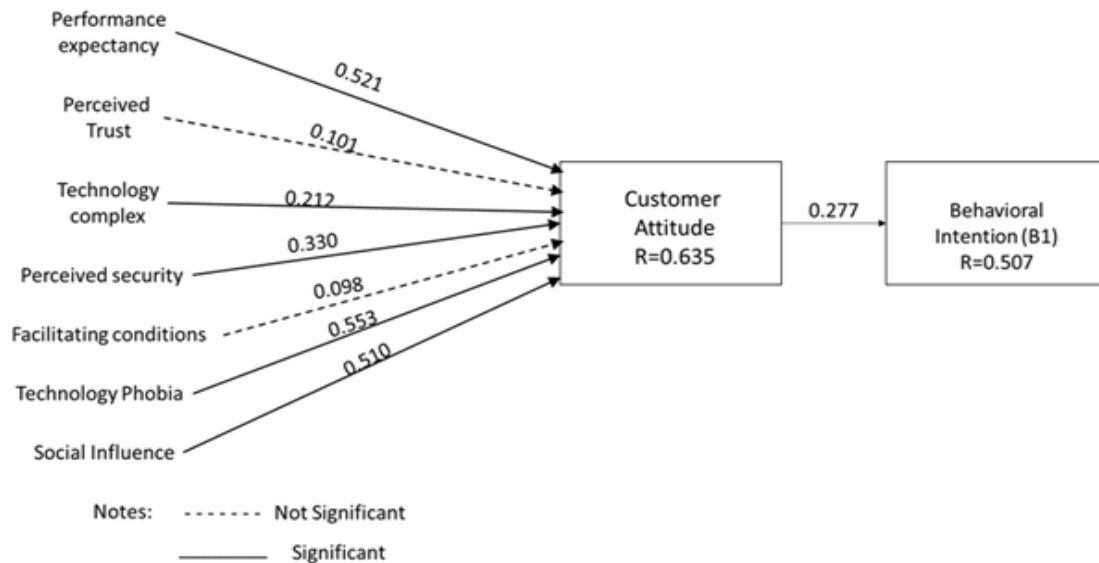
**Table-4: Inter Construct Correlation Matrix**

	SI	TC	PS	TP	PE	FC	PT	CA	BI
<b>PSI</b>	<b>0.738</b>	.							
<b>TC</b>	.534	<b>0.725</b>							
<b>PS</b>	.613	.563	<b>0.811</b>						
<b>TP</b>	.660	.629	.622	<b>0.787</b>					
<b>PE</b>	.586	.693	.545	.687	<b>0.725</b>				
<b>FC</b>	.516	.629	.451	.523	.634	<b>0.775</b>			
<b>PT</b>	.638	.656	.595	.633	.680	.671	<b>0.825</b>		
<b>CA</b>	.696	.548	.569	.628	.692	.543	.577	<b>0.805</b>	
<b>BI</b>	.719	.497	.537	.674	.665	.515	.636	.712	<b>0.798</b>

**Table-5: Hypotheses Testing**

Relationship	Path Coefficient (Standardized)	Critical ratio	p	S/NS
PE-CA	0.521	7.249	0.000	S
PSI-CA	0.510	6.336	0.000	S
CA-BI	0.712	9.835	0.000	S
TC-CA	0.212	2.911	0.014	S
PS-CA	0.330	3.522	0.000	S
TP-CA	0.553	8.691	0.000	S
PT-CA	0.101	1.157	0.098	NS
FC-CA	0.098	0.458	0.144	NS

**Key:** S means significant and NS indicates not significant

**Fig. 2: Structural E-banking Inhibitor Model Results**

## DISCUSSION OF FINDINGS

Performance expectancy (PE) shows positive relationship (CR = 7.249;  $P < 0.05$ ) with elderly customers attitude towards e-banking platforms. This finding supports some extant research [53, 54]; however, it is inconsistent with [55] who found no significant relationship with attitude. Marketers particularly bank managers may consider using service-demonstration-technique in presenting e-channels to elderly audience in order to further alter the mindset in favour of e-banking platforms. This study found insignificant correlation (critical ration = 1.157;  $p > 0.05$ ) between perceived trust and attitude. This finding is somewhat surprising because a number of earlier studies show positive-significant relations [14, 15]. However, the non-significant finding may be linked to limited options customers are subjected to as policy frameworks are increasingly compelling customers to migrate to online channels. Technology complexity has positive-significant relation with attitude (critical ration = 2.911;  $p < 0.05$ ). Simple-and-yet-inclusive innovation tasks customers less and engenders positive attitude towards the innovation [28, 9]. Elderly customers are more likely to be favourably disposed towards online platforms that are easy to understand and operate. In Nigeria, anecdotal evidence tends to suggest that most

elderly (60+) are not internet savvy, this implies that for banks to co-opted such market segment into online banking family, simplification of the configuration is key. Social influence correlates significantly with attitude (critical ratio = 6.336;  $p < 0.05$ ). Facilitating condition shows insignificant relation (critical ratio = 0.458;  $p < 0.05$ ) with attitude. This finding differs from Niehaves and Plattfaut [7] and Omotayo [6] but corroborates Alalwan et al [45] and Mbrokoh [46] which demonstrates insignificant relationship with facilitating conditions. Perhaps the sustained infrastructure upgrade may likely explain the less emphasis on facilitating conditions by elderly bank customers at the moment. Also, perceived security and privacy of financial information correlates significantly with attitude. Obviously, the elderly whose sources of income may be shrinking are concerned about the safety of the funds when online channels are employed in transactions. As cybercrime wave take various forms, fears of penetrating individual accounts online heighten. Bank managers, therefore, need to keep updating security mechanisms in order to be ahead of cybercrime operators. Technophobia overwhelmingly predict studied elderly customers' bank attitude regarding online banking. The limited literacy level prevalent among the elderly population across geo-political Zones



in Nigeria provokes anxiety, obsessive fear and uneasiness regarding conducting financial business using online channels. Overall, this research shows that attitude of surveyed customers significantly influences the intention of elderly customers to adopt online banking platforms. This finding provides further credence to ongoing debates in the extant literature regarding the correlation between attitude and intention [73, 70].

## CONCLUSION

Elderly bank customers constitute a market segment that is hugely under-served and rarely investigated even though the segment has serious opportunities. The concerns of elderly bank customers which tend to frustrate their co-option into online banking family are largely technophobia, security fears, perceived complexity, performance expectation, social influence among the surveyed customers regarding intention to use e-banking platforms.

## REFERENCES

- Oliveira, T., Faria, M., Thomas, M.A., & Popovic, A. (2014). Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM. *International Journal of Information Management*, 34(5), 689-703.
- Sharma, R., Singh, G. & Sharma, S. (2020). Modeling internet banking adoption in Fiji: A developing country perspective. *International Journal of Information Management*, 53.
- Izogo, E. & Nnaemeka, O. (2012). Impact of demographic variables on consumers' adoption of e-banking in Nigeria: An Empirical Investigation. *European Journal of Business and Management*, 4 (17)25-27
- Kamakodi, N. & Khan, B. A. (2008). Looking beyond technology: A study of e-banking channel acceptance by Indian customers. *International Journal of Electronic Banking*, 1(1), 73-94.
- Borraz-Mora, J., Bordonaba-Juste, V., & Polo-Redondo, Y. (2017). Functional barriers to the adoption of electronic banking: The moderating effect of gender. *Rev. Econ. Apl.* 25 (75), 87-107.
- Omotayo, F.O. (2020). Use and non-use of internet banking among elderly people in Nigeria. *International Journal of Social Science Management*, 7(2), 42-54.
- Niehaves, B. & Plattfaut, R. (2014). Internet adoption by the elderly: employing IS technology acceptance theories for understanding the age-related digital divide. *European Journal of Information Systems*, 23(6), 708-726
- Berkowsky, R.W., Sharit, J. & Czaja, S.J. (2018). Factors predicting decisions about technology adoption among older adults: *Innovation in Aging* 2(1), 1-12. doi:10.1093/geroni/igy002
- Ronning, W.M. & Solvberg, A.M. (2017). Older adults' coping with the digital everyday life. *International Journal of Media, Technology and Lifelong Learning*, 13 (2), 55-71.
- Omotayo, F. O. & Adebayo, A. K. (2015). Factors influencing intention to adopt internet banking by postgraduate students of the university of Ibadan, Nigeria. *Journal of Internet Banking and Commerce*, 20(3)
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *Management Information System Quarterly*, 13(3), 318-39.
- Venkatesh, V. & Zhang, X., (2010). Unified theory of acceptance and Use of technology: U.S. Vs. China. *Journal of Global Information Technology Management*, 13(1), 5-27.
- Yousafzai, S., Pallister, J., & Foxall, G. (2003). A proposed model of e-trust for electronic banking. *Technovation*, 23(11), 847-860
- Tjiptono, F., (2014). *Pemasaran Jasa - Prinsip, Penerapan dan Penelitian*, Andi Yogyakarta.
- Grabner-Krauter, S. & Faullant, R. (2008). Consumer acceptance of internet banking: The influence of trust. *International Journal of Bank Marketing*, 26 (7), 483-504.
- Hoffman, D.L. Novak, T., P. & Peralta, M. (1999). Building customer trust online. *Communications of ACM*, 42(4), 80-85.
- Gummerus, J., Liljander, V., Pura, M., & Van - Riel, A. (2004). Customer loyalty to content-based web sites: The case of an online health-care service. *Journal of Services Marketing*, 18, (3), 175-86.
- Richheld, F.F. & Scheffer, P. (2000). E-loyalty: Your secret weapon on the Web. *Harvard Business Review*, 78 (4), 105-111.
- Lichtenstein, S. & Williamson, K. (2006). Understanding consumer adoption of internet banking: An interpretive study in the Australian Banking context. *Journal of Electronic Commerce Research*, 7 (2), 50-66
- Pavlou, P. A. & Fyngenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the Theory of Planned Behavior. *MIS Quarterly*, 30(1), 115-143. <https://www.jstor.org/stable/25148720>.
- Muniruddeen, L. (2007). An examination of individual's perceived security and privacy of the internet in Malaysia and the influence of this on their intention to use e-commerce: Using an extension of the technology acceptance model. *Journal of Internet Banking and Commerce*, 12(3).
- Abadi, H.R. & Nematizadeh, F. (2012). An empirical investigation of the level of user's acceptance of e-banking among some customers of bank in Iran. *International Journal of Academic Research in Business and Social Sciences*, 2 (6), 418-430.
- Renny, Guritno, S., & Siringoringo, H. (2012). Perceived usefulness, ease of use, and attitude

- towards online shopping usefulness towards online airline ticket purchase. *Procedia Social and Behavioural Science*, 81, 212-216.
- 24 Cheung, W., Chang, M.K., & Lai, V.S. (2000). Prediction of internet and world wide web usage at work: A test of an extended Triandis Model. *Decision Support Systems*, 30 (1), 83-100.
- 25 Lederer, A.L., Maupin, D.J., Sena, M.P., & Zhuang, Y. (2000). The technology acceptance model and the World Wide Web. *Decision Support Systems*, 29 (3), 269-282.
- 26 Cooper, R.B. & Zmud, R.W. (1990). Information technology implementation research: A technology diffusion approach. *Management Science*, 36 (2), 123-139.
- 27 Sinkovics, R. R., Stottinger, B., Schlegelmilch, B., & Sundresan, R., (2002). Reluctance to use technology related products: Development of technophobia scale. *Thunderbird International Business Review*, 44 (4), 477-494. <https://doi.10.1002/tie.10033>
- 28 Peek, ST., Luijckx, K.G., Rijnaard, M.D., Nieboer, M.E., van- der Voort, C.S., Aarts, S., van Hoof, J., Vrijhoef, H.J., & Wouters, E.J. (2016). Older adults' reasons for using technology while aging in place. *Gerontology* 62(2). 226-237. Doi: 10.1159/000430949.
- 29 Mattila, M., Karjaluo, H. & Pentto, T. (2003). Internet banking adoption among mature customers: Early majority or laggards? *Journal of Services Marketing* 17(5), 514-528
- 30 Wang, Y.S., Wang, Y.M., Lin, H.H., & Tang, T.I. (2003). Determinants of user acceptance of internet banking: An empirical study. *International Journal of Service Industry Management*, 14 (5), 501-519.
- 31 Yousafzai, S.Y., Foxall, G.R. & Pallister, J.G., (2010). Explaining internet banking behavior: Theory of Reasoned Action, Theory of Planned Behaviour, or Technology Acceptance Model. *Journal of Applied Social Psychology*, 40 (5), 1172-1202.
- 32 Omankhanlen, O. (2009). ATM fraud rises: Nigerians groan in Nigeria. *Daily News*, Sunday, June 21, 8-10.
- 33 Adegboyega, J. E. & Tomola, M.O. (2018). Card frauds and customers' confidence in alternative banking channels in Nigeria. *European scientific journal*, 14 (16), 41. URL:<http://dx.doi.org/10.19044/esj.2018.v14n16p40>
- 34 Adeloje, L.A., (2008). E-banking as new frontiers for banks. *Sunday punch*, September 14, P. 25.
- 35 Ahmad, A.E.M.K. & AlZu'bi'. H.A. (2011). E-banking functionality and outcome of customer satisfaction: An empirical investigation. *International Journal of Marketing Studies*, 3 (1), 50.
- 36 Al-Fahim, N. H (2013). An exploratory study of factors affecting the internet banking adoption: A qualitative study among postgraduate students. *Global Journal of Management and Business Research Finance*, 13 (8), 22-3
- 37 Alwan, H.A. & AlZubi, A.I. (2016). Determinants of internet banking adoption among customers of commercial banks: An empirical study in Jordanian banking sector. *International Journal of Business Management*, 11(3), 95-104.
- 38 Ezzi, S.W. (2014). A theoretical model for internet banking: Beyond perceived usefulness and ease of use. *Archives of Business Research*, 2(2), 31-46.
- 39 Tarhini, A., Mgbemena, C., Trab, M.S.A., & Masa'deh, R. (2015). User adoption of online banking in Nigeria: A qualitative study. *Journal of Internet Banking and Commerce*, 20 (3), 1-24.
- 40 Zanoon, N., & Gharaibeh, N. (2013). The impact of customer knowledge on the security of e-banking. *International Journal of Computer Science and Security*, 7 (2), 81-92.
- 41 Ramayah, T. & Ling, K.P. (2002). An exploratory study of internet banking in Malaysia. *Proceedings of the 3<sup>rd</sup> International Conference on Management of Innovation and Technology*, 25-27 October 2002, China.
- 42 Sathye, M. (1999). Adoption of Internet banking by Australian consumers: An empirical investigation, *Int. J. Bank Mark*, 17(7), 324-334.
- 43 Asmi, F. & Ishaya, T. (2012). Understanding the behavior of the elderly towards internet banking in the UK: SOTICS 2012: The Second International Conference on Social Eco-
- a. Informatics, 100-106
- 44 Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the consumers' acceptance and use of internet banking in Lebanon: A structural equation modeling approach. *Information Technology and People*, 29 (4), 830-849. Doi.10.1108/ITP-02-2014-0034
- 45 Alalwan, A. A., Dwivedi, Y. K., & Williams, M. D. (2014). Examining factors affecting customers' intention and adoption of internet banking in Jordan. *UK Academy for Information Systems Conference Proceedings*, Paper 3, Oxford, 7-9 April. Retrieved from <http://aisel.aisnet.org/ukais2014/3>
- 46 Mbrokoh, A.S. (2015). Factors that influence internet banking adoption in Ghana. MPhil dissertation, University of Ghana, Legon.
- 47 Uche, R.D. (2011). Dimensions of technophobia-technophilia among senior staff members of the university of Calabar, Nigeria. *Global Journal of Educational Research*, 10 (1), 35-42.
- 48 Kate, T.C. (2012). Elementary teachers' computer phobia and computer self-efficacy in Taiwan; TOJET: The Turkish Online Journal of Educational Technology – April 2012, volume 11 (2)
- 49 Arenas-Gaitán, J., Peral-Peral, B., & Ramón-Jerónimo, M.A. (2015). Elderly and internet

- banking: An application of UTAUT2. *Journal of Internet Banking and Commerce*. 20(1), 1-23. <https://www.researchgate.net/publication/277924056>.
- 50 Min, Q., Ji, S., & Qu, G. (2008). Mobile commerce user acceptance study in China: A revised UTAUT model. *Tsinghua Science & Technology*, 13(3), 257-264.
- 51 Jambulingam, M. (2013). Behavioral intention to adopt mobile technology among tertiary students. *World Applied Sciences Journal*, 22(9), 1262-1271.
- 52 Jaradat, M.I. & Rababaa, M. (2015). Assessing key factors that influence on the acceptance of mobile commerce based on modified UTAUT. *International Journal of Business and Management*, 8 (23), 7-11.
- 53 Sair, S.A. & Danish, R.Q. (2018). Effect of performance expectation and effort expectancy on the mobile commerce adoption intention through personal innovativeness among Pakistani customers. *Pakistan Journal of Commerce and Social Sciences*, 12 (2), 501-520.
- 54 Chou, Y. H. D., Li, T. Y. D., & Ho, C. T. B. (2018). Factors influencing the adoption of mobile commerce in Taiwan. *International Journal of Mobile Communications*, 16(2), 117-134.
- 55 Verkijika, S. F. (2018). Factors influencing the adoption of mobile commerce applications in Cameroon. *Telematics and Information*, 35 (6), 1665-1674
- 56 Dearing, J. & Cox, J. (2018). Diffusion of innovations theory, principles, and practice: Project HOPE—The People-to-People Health Foundation, Inc. *HEALTH AFFAIRS*, 37(2), 183–190. doi: People-to-10.1377/hlthaff.2017.1104.
- 57 Kotler, P. (2002). *Marketing Management: Eleventh Edition*, Prentice-Hall of India, Private Limited. New Delhi 110001.
- 58 Kotler, P. (2000). *Marketing Management: Millennium Edition, Tenth Edition*, by Prentice-Hall, Inc. PEARSON CUSTOM PUBLISHING 75 Arlington Street, Suite 300, Boston, MA 02116
- 59 Odumeru, J. A. (2012). The acceptance of e-banking by customers in Nigeria. *World Review of Business Research*, 2(2), 62-74.
- 60 Nasri, W. & Zarai, M. (2014). Empirical analysis of internet banking adoption in Tunisia. *Asian Economic and Financial Review*, 4(12), 1812-1825.
- 61 Jahangir, N. & Begum, N. (2008). The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaptation in the context of electronic banking. *African Journal of Business Management*, 2(1), 32-40.
- 62 Adesina, A. A., & Ayo, C. K. (2010). An empirical investigation of the level of user's acceptance of e-banking in Nigeria. *Journal of Internet Banking and Commerce*, 15 (1), 1-7.
- 63 Ainin, S., Lim, C.H., & Wee, A. (2005). Prospects and challenges of e-banking in Malaysia. *The Electronic Journal of Information Systems in Developing Countries*, 22 (1), 1-11.
- 64 Laukkanen, T., Sinkkonen, S., Kivijarvi, M., & Laukkanen, P., (2007). Innovation resistance among mature consumers. *Journal of Consumer Marketing*, 24(7), 419-427. <http://dx.doi.org/10.1108/07363760710834834>
- 65 Rotchanakitumnuai, S. & Speece, M. (2003). Barriers to internet banking adoption: A qualitative study among corporate customers in Thailand. *International Journal of Bank Marketing*, 21 (6/7), 324-334.
- 66 Ajzen, I. (1991). The Theory of Planned Behaviour. *Organ. Behav. Hum. Decis. Process*. 50 (2), 179-211.
- 67 Sanayei, A. & Bahmani, E. (2012). Integrating TAM and TPB with perceived risk to measure customers' acceptance of internet banking. *International Journal of Information Science and Management*, 25-37.
- 68 Al-Smadi, O. (2012). Factors affecting adoption of electronic banking: An analysis of the perspectives of bank customers. *International Journal of Business and Social Science*, 3 (17), 294-309.
- 69 Shih, Y. & Fang, K. (2006). Effects of network quality attributes on customer adoption intentions of internet banking. *Total Quality Management*, 46 (1), 16-22.
- 70 Braganza, P.I. (2017). Intention to use internet banking: Differences between Users and Non-Users and the Moderating Role of Felt Want., Ph.D. thesis, Goa University, Taligao Gao, India
- 71 Camilleri, S.J. & Grech, G. (2017). The relevance of age categories in explaining internet banking adoption rates and customers' attitudes towards the service. *Journal of Applied Finance and Banking*, 7(2), 29-47.
- 72 Hill, R., Betts, L.R., & Gardner, S.E. (2015). Older adults' experiences and perceptions of digital technology: (Dis)empowerment, wellbeing, and inclusion. *Computers in Human Behavior*, 48(2), 415-423. doi: 10.1016/j.chb.2015.01.062.
- 73 Gitlow, L. (2014) Technology use by older adults and barriers to using technology. *Physical and Occupational Therapy in Geriatrics*, 32(3), 271-280, doi: 10.3109/02703181.2014.946640
- 74 Piiparinen, M. (2014). Attitudes of seniors' using cash services towards online banking. Bachelor's Project, Turku University of Applied Sciences, Finland <https://www.theseus/handle/10024/97354/Th>
- 75 Omair, A. (2014). Sample size determination and sampling techniques for selecting a representative sample. *J. Health Sc.*, 2 (4).
- 76 Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D., (2003). User acceptance of

- information technology: Towards a unified view. *MIS Quarterly*, 27(3), 425-478.
- 77 Muniruddeen, L. (2007). An examination of individual's perceived security and privacy of the internet in Malaysia and the influence of this on their intention to use e-commerce: Using an extension of the technology acceptance model. *Journal of Internet Banking and Commerce*, 12(3).
- 78 Khasawneh, M.H.A. (2015). A mobile banking adoption model in the Jordan market: An integration of TAM with perceived risks and perceived benefits. *Journal of Internet Bank Customers*, 20 (3), 1-13.
- 79 Reid, M. & Levy, Y. (2008). Integrating trust and computer self-efficiency with TAM: An empirical assessment of customers' acceptance of information system in Jamaica. *Journal of Internet Banking and Commerce*, 12 (3).
- 80 Zhao, S., Grasmuck, S., & Martin, J. (2008). Identity construction on Facebook: Digital empowerment in anchored relationships. *Computers in Human Behaviour*, 24, 1816-1836
- 81 Wong, K.K. (2013). Partial Least Square Structural Equation Modelling techniques using SmartPLS. *Marketing Bulletin*, 24, Technical Notes 1.
- 82 Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis*, 7<sup>th</sup> ed. Person Education Inc., Upper Saddle River, New Jersey.
- 83 Chin, W.W. (1998). Issues and opinions on structural equation modelling. *MIS Quarterly*, 22(1), 7-16.
- 84 Peng, D. X. & Lai, F. (2012). Using Partial Least Squares in operations management: A practical guide and summary of past research. *J. Oper. Manag.*, 30, 467-480.