



EFFECT OF PERCEIVED EASE OF USE AND PERCEIVED USEFULNESS ON CONSUMER ONLINE BUYING BEHAVIOR IN NIGERIA: THE MODERATING ROLE OF TRUST

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Abstract

The electronic commerce (e-commerce) has shown an upward trend in Nigeria, providing online transaction platforms for both domestic and global markets which benefits businesses and consumers. A comprehensive understanding of how perceived ease of use and perceived usefulness influence online buying behaviour is essential for e-commerce marketers to gain a competitive advantage. Therefore, this study examines the effect of perceived ease of use and perceived usefulness on online buying behaviour among postgraduate students in ABU Zaria. The study used the partial least square structural equation modelling (PLS-SEM) as a technique to run and analyse the data collected from DLC postgraduate students using a sample of 398 students. The findings of the study for the direct relationship showed that perceived ease of use and perceived usefulness in online buying behaviour were found to be positive and significant. Similarly, the findings for the indirect relationship that used trust as a moderator showed perceived ease of use not to be significant, while perceived usefulness was found to be significant in online buying behaviour. The study concludes that perceived ease of use and perceived usefulness are critical factors that make students engage in online buying behaviour. Thus, the study recommends that online vendors should emphasize the usefulness of the online shopping experience to customers by offering a range of benefits to customers such as convenience, easy payment options, quick and reliable delivery.

Keywords: *Perceived ease of use, perceived usefulness, trust, online buying behaviour*

1. INTRODUCTION

The internet influence on people around the world has make slight changes to their behavior and attitudes. Because of the internet, online shopping has emerged, which affects the lives of ordinary citizens (Miah, Hossain, Shikder, Saha, & Neger, 2022). Electronic Commerce (e-commerce) is one of the most important features of the internet era that has led to a greater shift of consumers to online shopping (Omotayo & Omotope, 2018). As a result, the electronic commerce (e-commerce) industry will continue to grow and evolve, resulting in more online companies and digital customer penetration. In essence, e-commerce involves the purchase of goods and services over the internet (Omotayo & Omotope, 2018). Consumers are buying online because of the wide availability of information on the products, process or services as well as the availability of the internet, interactive experience, convenience, variety, cost savings, time and price comparison (Céline et al. 2020; Kuswanto, Pratama, Ahmad & Mutiah Salamah 2019). However, Africa has witnessed a



tremendous growth in e-commerce, with Nigeria having a growth rate of 25% per annum (Chinedu & Obot, 2019). Nigeria has experienced a significant shift in consumer behaviour over the past decade, largely due to the rise of e-commerce. The convenience of being able to purchase products from the comfort of their homes or offices has made online shopping the preferred option for many Nigerians. This shift has revolutionised the Nigerian retail landscape, opening up new opportunities for consumers and businesses. With almost half of the Nigerian population having internet connectivity, Nigeria is one of Africa's largest consumer markets. The market is projected to increase by 25.5 percent in 2023, contributing to the worldwide growth rate of 17.0 percent in 2023 (Folayan 2023). The Nigerian internet users in 2018 had 92.3 million users (Usman & Kumar, 2019). This figure is projected to grow to 187.8 million internet users in 2023. The internet penetration amounted to 47.1 percent of the population in 2018 and is set to reach 84.5 percent in 2023 (Usman & Kumar, 2019).

Electronic commerce (e-commerce) is the buying and selling of goods and services online through the use of internet (Nazir, Tayyab, Sajid, Rashid, & Javed, 2012). Online shopping is a form of e-commerce which permits consumers to directly purchase goods or services from a seller by using the internet (Singh, 2013). Industries are responding to innovative order in the technological world, the internet world to meet the needs of their dynamic customers (Olise, Moses, Stephen, Happiness, & Oby, 2019). Internet usage in Nigeria is rapidly growing due to increase in internet penetration (Usmna & Kumar, 2019; Olise et al., 2019). Therefore, the trend of internet shopping is becoming a drone that is spreading through every marketing activity.

According to Nordin and Nik Kamariah (2011), online shopping is gaining popularity particularly among countries with well-developed infrastructure for marketing activities over the internet. Thus, researchers need to study and investigate the potential development of electronic commerce in developing countries. Although there are a lot of studies conducted in the context of online shopping, few studies investigated the online shopping behavior of consumers in Nigeria. Most of the researchers investigated their purchase intention rather than their purchasing behavior which is the last stage of the online shopping process. Since selling through internet is different from selling in a traditional store, such behavior and new technological challenges are important to understand (Jim, Osman & Halim 2014).

To address this problem, researchers have conducted some studies on determinants of consumer online buying behavior, the results of the studies showed mixed findings which necessitate the need for the introduction of a moderator. (e.g Ahmed, Su, Rafique, Zaman Khan, & Jamil, 2017; Ansari, 2018; Kuswanto, Bima, Pratama, & Ahmad, 2019; Vinitha & Shanthakumari, 2017; Jawa & Chaichi, 2015; Usman & Kumar, 2019). Nevertheless, there is still lack of studies on how trust enhances the effect of the determinants of online consumer buying behavior, as research on Nigerian online shopping is scarce (Gabriel *et al.*, 2016).

Therefore upon the presence of the practical problem that necessitates the need for research on online buying behaviour, there were no studies found on perceived ease of use and perceived usefulness in online buying behaviour in the Nigerian context (Inegbedion, Obadiaru, & Bello, 2016; George, Olufemi, Jubril, & Lucas, 2015; Nwankwo, Kanyangale, & Abugu, 2019).



In view of the foregoing literature gap, the current study seeks to examine the effect of Perceived Ease of Use (PEOU), Perceived Usefulness (PU) and trust(moderator) of consumer online buying behaviour in Nigeria. The current study is expected to increase our understanding of the Technology Acceptance Model (TAM) model by studying the relationship between Perceived Usefulness (PU) and Perceived ease of Use (PEOU) to predict Consumer Online Buying Behavior (COBB) while moderated by trust. While previous studies have only concentrated on the application of TAM, this study aimed at adding a moderator (trust) which is very rare in the current literature. Although, studies have found that PU, and PEOU have positive and significant effect on COBB but few studies have looked at moderating relationships. This study will be beneficial for both academia and practitioners. It will help online vendors to understand the factors that influence online consumer's behavior, and academically it will open new doors for a further research on the use of other factors that were not mentioned in this study. The main objective of this research is to examine the moderating effect of trust on PU and PEOU, and consumer online buying behaviour.

In line with the research objectives of the study, the following null hypotheses are formulated.

H₀₁: Perceived ease of use and perceived usefulness have no significant effect on consumer online buying behaviour among Postgraduate students in ABU Zaria.

H₀₂: Trust as a moderator of perceived ease of use and perceived usefulness have no significant effect on consumer online buying behavior among Postgraduate students in ABU Zaria.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Concept of Consumer Behaviour

Consumer buying behaviour refers to what persuade customers toward deciding to purchase a product or service (Emamdin *et al.*, 2020). According to Lake (2009), consumer behaviour is when an individual realizes that he has a need, the psychological process starts from the consumer decision process. Through this process, the individual sets out to find ways to fulfill the need he has identified. That process includes the individual's thoughts, feelings, and behavior. When the process is complete, the consumer is faced with the task of analyzing and digesting all the information, which determines the actions he will take to fulfill the need. Kotler and Armstrong, (2018) defined consumer buying behavior as the behavior of consumers-individuals and household that buys goods and services for their final consumption.

Online buying otherwise known as online shopping involves a user accessing internet to search, select, buy, use, and dispose of goods and services, in satisfying his or her needs and wants (Shoki, Sylvester, Ismail & Ali Mat, 2014). Internet or web browser is a mechanism that people use to buy and sell goods and services to the target customers. In this present period, devices, such as desktop computers, laptops, tablet computers and even smartphones are gadgets that are found by most individuals which whenever connected to the internet can make a person to have access to a web site, hence, can shop online at his/her convenience (Sarkar & Lahiri, 2018).

Online Buying/ Shopping Behaviour

As a result of internet, many organizations have found a profitable channel for conducting business and a basic form to gain competitive advantage in a more technological oriented market. Online buying or online shopping is the process of buying goods through the internet. These processes consist of five steps similar to those associated with the traditional mode of buying (Liang & Lai,



2000). The process of online shopping behavior begins with the recognition of a certain need, which determines consumers to search for information on web sites. In the next stage, they will evaluate different buying possibilities by a set of personal criteria and will chose the product which best fit their expectation. After taking the purchasing decision, the consumer becomes the customer of a specific organization, due to a transaction and a series of eventual post-sales services (Onete *et al.*, 2008).

Perceived Ease of Use

Perceived ease of use is one of the determinants that is important for understanding what causes people to accept or reject information technology (Davis, 1987). He defined perceived ease of use (PEOU) in the original TAM as the degree to which a person believes that using a particular system would be free of effort. Davis has also confirmed that PEOU has a causal effect on PU by several studies among which are (Rauniar, Rawski, Yang, & Johnson, 2014; Venkatesh & Davis, 2000; Davis, 1987).

Perceived Usefulness

Davis (1989) states that perceived usefulness is core construct of the Technology Acceptance Model (TAM). Perceived usefulness provides insights into the causal interaction between behavioral belief (i.e., perceived usefulness), attitudes, intentions and behavior, and then state that human behavior can be explained by those two beliefs (Sohn, 2017). He viewed perceived usefulness as the degree to which consumers believe that using mobile online stores enhances their shopping task performance. More so, perceived usefulness of mobile online stores indicates the degree of a person's belief that a mobile online store would enhance information search/purchasing performance (Sohn, 2017). Davis (1989) states that perceived usefulness is defined as the extent to which a person believes that using an information system will enhance his or her job/task performance.

Trust as a Moderating Variable

Mayer, Davis and Schoorman (1995) define trust as the readiness of a party to be vulnerable to the actions of another party based on the anticipation that the other will execute a particular action important to the trust or, irrespective of the ability to observe or control that other party. Pavlou (2003) states that trust in e-commerce is the belief that permits consumers to willingly become vulnerable to Web retailers after having taken the retailers characteristics into consideration. He further stated that web vendors have a major role to play in encouraging trust in the infrastructure by creating safe and secure online shopping atmosphere. Schurr and Ozanne (1985) define trust as one's assurance on the exchange party's competence and readiness to set up the business' adherence to the relationship norms, and maintaining promises.

2.2 Review of Empirical Literature

Ahmed *et al.* (2017) analysed factors that affect consumer online shopping. Questionnaires were used to collect data from the employees of the University of the Punjab. SPSS was used for data analysis. The findings of the study revealed perceived benefit has an insignificant relationship with consumer online buying behavior, whereas domain specific innovativeness and shopping orientations have a significant relationship with consumer online buying behavior. However, there are many factors that may affect online shopping behavior but this study could not examine all. Ansari, (2018) investigated the factors that influence customers on their online shopping

behaviour. The factors are social factors, cultural factors and social class. Questionnaire was used to collect data on 400 respondents. Factor Analysis, Mean and Standard Deviation were used to analyse the data. The study found that among all these three factors cultural factors and social class has a significant influence on online shopping behaviour of customers. Kuswanto et al., (2019) analysed students' online shopping behaviour using a partial least squares approach. Enjoyment, perceived risk, social influence trust and security, quality of web site and online advertisement were factors used in the study. Questionnaire was distributed to total sample size of 393 students. Structural Equation Modeling-Partial Least Squares (SEM-PLS) as well as PLS Predictive-Oriented Segmentation (PLS-OLS) to group the students based on their online behavior were used for analysis. The analysis shows that the students' online shopping behaviour is significantly influenced by enjoyment, perceived risk, and social influence. Vinitha & Shanthakumari, (2017) studied factors influencing consumer online buying behavior through online portal. The study variables are the external and internal influence of consumer online buying behavior. However, the study was a literature review, there was no analysis conducted. Jawa & Chaichi, (2015) studied factors influencing consumer behavior towards online shopping. Factors were used; website design quality, perceived trust, perceived convenience and advertisements & promotions. 107 participants were issued questionnaire to collect data and were analysed using SPSS software. The study found that from the four variables, only one (quality) showed a significant relationship with online buying behaviour. The remaining three factors showed an insignificant relationship. Syaharani & Yasa, (2022) investigated the role of trust as a mediation between perceived usefulness and perceived ease or use. Data were collected from 120 respondents using google form. Data were analyzed using path analysis and Sobel test. The result show perceived usefulness and ease of use have significantly and positively affects repurchase intention.

2.3 Theoretical Framework

The study has adopted Technological Acceptance Model (TAM) model. Technology Acceptance Model (TAM) is a hypothesis developed to determine how the system's PU and PEOU practically effects a person's behavior over the internet system (Davis, 1986). PU shows how the system increases system users' performance whereas PEOU highlights how the system does not demand too much effort to use, (Omotayo & Mayowa, 2018; Wang, 2017). In the context of e-commerce, when online shopping websites are simple to use and deliver helpful information to their customers, their purchasing intent and behavior improves (Isa & Lajuni, 2020).

Conceptual Framework

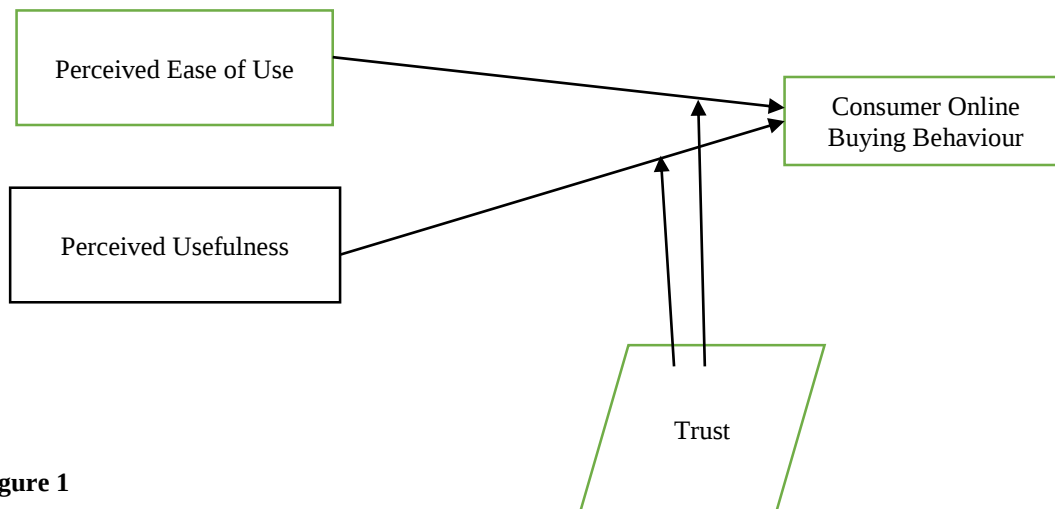


Figure 1



3. METHODOLOGY

3.1 Population and Sample size

The population of this study is the total postgraduate students of Distance Learning Center (DLC), Ahmadu Bello University (ABU) Zaria. The students include those in Postgraduate Diploma, Masters (Academic/Professional) programmes in the University. The total number of students for the courses are 3,765 that registered for the 2021/2022 session. Table 3.1 provides details of the students.

Table 3.1 2021/2022 Population of ABU Distance Learning Center (DLC), PG students

S/No	Courses	No. of PG students	Apportionment
1.	Master in Business Administration (MBA)	1453	38
2.	Master in Public Health (MPH)	1357	36
3.	Master in International Affairs and Diplomacy (MIAD)	358	10
4.	Master in Information Management (MIM)	271	7
5.	Master in Law enforcement and Criminal Justice (MLCJ)	111	3
6.	Master in Public Administration (MPA)	55	2
7.	Postgraduate Diploma in Management (PGDM)	110	3
8.	Postgraduate Diploma in Education (PGDE)	50	1
Total	8	3765	

Source: ABU, DLC.

Table 3.1 shows number of DLC, Postgraduate students that offer various programmes such as MBA, PGDM, MPH and PGDE. The data was used to draw samples size.

3.2 Sample Size and Sampling Technique

The sample size of this study was determined using Yamane (1973) formula with 95% confidence interval at 5% level of precision from 8 courses. Therefore, the calculation of sample size will be given in the following equation. Therefore, the calculation of sample size was given in the following equation.

$$n = N / 1 + N (e)^2$$

Where n = sample size

N = population

e = error of the sampling or level of significant

Thus, $N = 3,765$, $e = 0.05$ and $n = ?$

$$n = 3,765 / 1 + 3,765(0.05)^2$$

$$n = 3,765 / 10.4125$$

$$n = 362$$

Therefore, from the above calculation, the sample size of the study is 362 at 5% level of significance. Furthermore, 10% (36) will be added to the above minimum sample size given by the formula to make it 398. As this will take care of other errors such as incorrect filling and failure of some respondents to return questionnaire (Israel, 2013).

In this study, simple random sampling was employed because it's a method in which each element of the population has an equal chance of been selected in the sample. The reason for selecting this method is because simple random sampling can be used in a homogenous population and has the



least bias and has the most generalizability as each and every element can fall within the sample (Sekaran & Bougie, 2013). The source of data for the study is primary source. Primary source was used through the use of survey questionnaire to collect data from respondents. The questionnaire was distributed to the respondents that offer all the PG courses in DLC, ABU Zaria. The apportionment of questionnaires was based on the number of respondents in each course.

Data was collected through self-administered questionnaire. The copies of questionnaires were distributed to the eligible respondents in each course. The questionnaire is divided into two sections and all questions are in close ended form. Section one asks questions on the bio data of the respondent and in section two, questions were asked on perceived ease of use, perceived usefulness, trust and online buying behaviour. The questionnaire was adapted. In this study, the variable was measured using the 7 items adapted from (Moshrefjavadi et al., 2012 and Faqih 2016) using 5-point Likert scale.

3.3 Technique of Data Analysis and Justification

This study employs the use of Statistical Package for the Social Sciences (SPSS) version 21 for data coding, data screening, and other preliminary analyses. However, for the major analysis, the study employs the use of Partial Least Squares Structural Equation Modeling (PLS- SEM) path modeling using the smartPLS3.2.9 statistical software.

4. RESULTS AND DISCUSSIONS

4.1 Analytical procedure

Prior to the main analysis, this study ensured assumptions about outlier check, normality and multicollinearity (Hair, Hult, Ringle & Sarstedt, 2017). After successfully satisfying all assumptions, the adopted the partial least squares (PLS) path modeling method. The method is used because the study is aimed at predicting the dependent variable (Duarte & Raposo, 2010) and PLS is also a non-parametric technique (Ruiz, Mujica, Berjaga, & Rodellar, 2013). In order to validate and evaluate the research model, Hair, Sarstedt, Ringle, and Gudergan (2017) suggested using two stages of evaluation. They are measurement models (also called external models in PLS-SEM) and structural models (also called internal models in PLS-SEM).

4.1.1 Measurement Model

4.1.1.1 Assessment of Measurement Model

In order to evaluate the measurement model of a study, it is crucial to assess the reliability of individual items measuring each latent construct, as well as their internal consistency reliability (i.e., construct reliability), discriminant validity, and convergent validity (Hair *et al.*, 2014; Hair *et al.*, 2019; Henseler *et al.*, 2009; Henseler *et al.*, 2015), as presented in section 4.1.2.1.

4.1.1.2 Individual Item Reliability

To determine the individual item reliability and other measurement model assessments, the study performed the PLS algorithm (Geladi & Kowalski, 1986), as presented in Figure 4.1. The individual item or factor reliability of reflective constructs were determined using the outer loadings of each construct's indicators (Duarte & Raposo, 2010; Hair *et al.*, 2012; Hulland, 1999; Avkiran & Ringle, 2018). According to Hair *et al.* (2017), an indicator with an outer loading of 0.70 or higher is considered reliable and acceptable for an already developed scale. However, an indicator must be between the loading of 0.40 and 0.70, and the decision to delete it must be subject

to increment of AVE and CR of the target construct (Avkiran & Ringle, 2018).

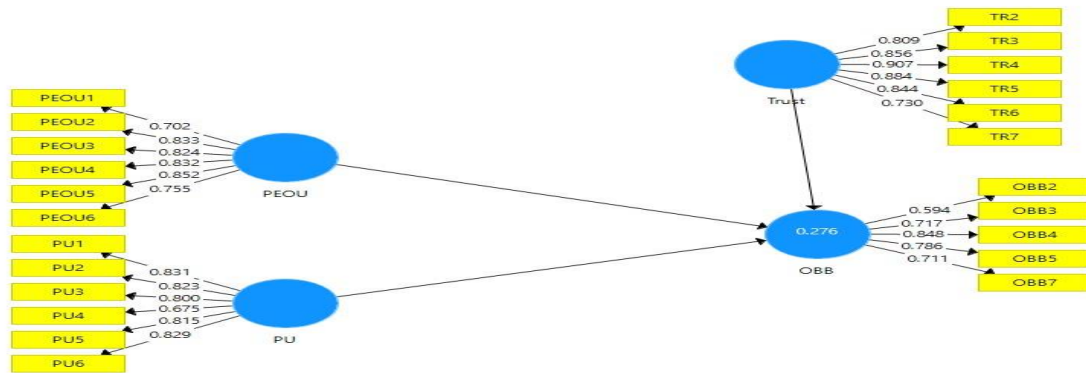


Figure 4.1 Source: Smart PLS3.2.9 Algorithm

Table 4.1 Reliability and Convergent Validity of the Variables

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
OBB	0.788	0.806	0.854	0.542
PEOU	0.888	0.894	0.915	0.642
PU	0.884	0.893	0.912	0.635
Trust	0.916	0.922	0.935	0.706

Source: Smart PLS 3.2.9 (2023)

In addition, the composite reliability and Cronbach's alpha value were evaluated to determine the internal consistency of the reflective structure (between 0 and 1), the higher values represent higher reliabilities. In conclusion, all of these constructs are reliable because their respective composite reliability and Cronbach alpha values are above the threshold of 0.70. Again, the convergent validity was also met as all the AVE values were all above 0.50.

Furthermore, to ascertain the discriminant validity, Duarte and Amaro (2018) proposed the use of Heterotrait-Monotrait method (HTMT) matrix as a more adequate and sensitive approach to detecting discriminant validity.

Table 4.2 Discriminant Validity using HTMT

	OBB	PEOU	PU	Trust
OBB				
PEOU	0.438			
PU	0.564	0.61		
Trust	0.417	0.47	0.514	

Source: Smart PLS 3.2.9 (2023).

As can be seen from the Table 4.2, the HTMT statistics are given based on the correlation between their reflective construction items. Since the HTMT value is lower than the 0.85 threshold proposed by (Hair *et al.*, 2017), the reflective latent variable of this study has discriminant validity.

Table 4.3 Discriminant Validity using Fornell-Lacker criterion

	OBB	PEOU	PU	Trust
OBB	0.736			
PEOU	0.383	0.801		
PU	0.487	0.543	0.797	
Trust	0.371	0.422	0.458	0.84

Source: Smart PLS 3.2.9 (2023).

The second method used in this study is the Fornell-Lacker criterion, which states that a reflective construct has discriminant validity if the square root of its average variance extracted (AVE) is greater than its correlation with any other reflective construct in the same model (Fornell & Larcker, 1981). Table 4.3 presents the results of the DV assessment using the Fornell and Lacker criteria, indicating that all the reflective constructs in this study have achieved discriminant validity.

4.1.1.3 Structural Model

To assess the Structural Model, it is important to ensure that the quality criteria for the measurement model, such as indicator reliability, internal consistency, convergent validity, and discriminant validity, have been met (Hair *et al.*, 2014). Since the measurement models in this study have satisfied these criteria, the next step is to evaluate the structural model (Hair *et al.*, 2017). This includes testing the research hypotheses to determine R^2 and effect size (f^2). Ringle and Sarstedt (2016) recommended that researchers use Importance Performance Map Analysis (IPMA) on their research models to derive more insights from the structural model's outputs and provide appropriate recommendations at both the construct and indicator level. Bootstrap analysis was used to analyze both the main and moderating hypotheses. The standard bootstrapping procedure was employed using 5000 bootstrap samples for 398 cases to assess the significance of the path coefficients of both direct and moderating relationships (Hair *et al.*, 2014; Hair *et al.*, 2011; Hair *et al.*, 2012; Henseler *et al.*, 2009). The results of this analysis are presented in Figure 4.2 and Table 4.10.

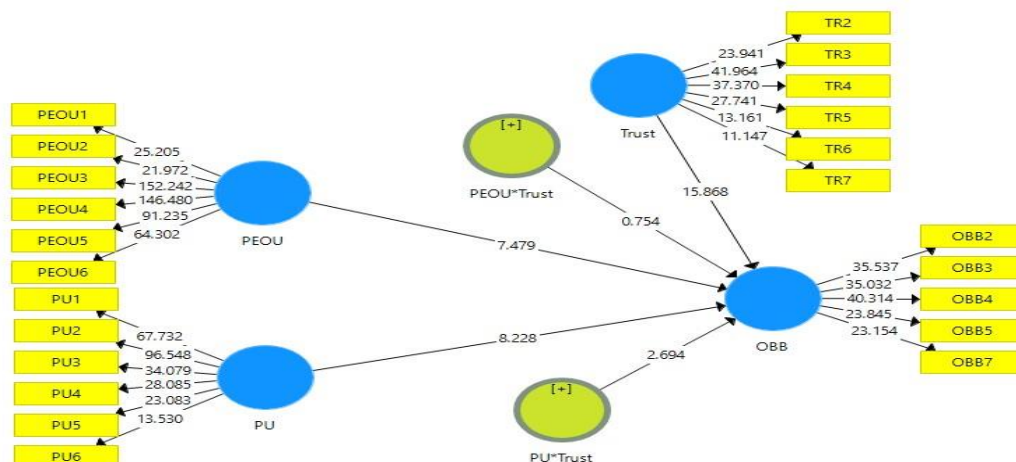


Figure 4.2: Smart PLS3.2.9 Algorithm

**Table 4.4 Size and Significance of the Path Coefficients of Direct Relationships**

	Beta	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Decision
PEOU -> OBB	0.226	0.03	7.479	0.000***	Rejected
PU -> OBB	0.223	0.027	8.228	0.000***	Rejected
PEOU*Trust -> BB	-0.017	0.023	0.754	0.451	Not Rejected
PU*Trust -> OBB	0.066	0.025	2.694	0.007***	Rejected

***P value <0.01, **P value<0.05 *P-value<0.1

Source: Smart PLS 3.2.9 (2023)

Table 4.4 reveals that the results of the statistical analysis indicate a positive and significant relationship between PEOU and OBB ($\beta=0.226$, $p<0.001$). This means that PEOU is significantly related to OBB. Meaning, since using a system to buy product is free of effort, consumers will engage in online buying. Additionally, the analysis shows that perceived usefulness has a significant effect on OBB ($\beta=0.223$, $p<0.01$), meaning that the using a system to buy a product will enhance their performance in using the website to search for more products, the more customers are willing to buy online. The two direct relationships between the latent exogenous and endogenous constructs were found to be statistically significant with online buying behaviour. Furthermore, while examining the significance of the interaction term, which indicates the moderating effect of the moderator on the relationship between the independent and dependent variables. The bootstrapping analysis presented in Table 4.4 revealed that there is no significant moderating effect on OBB when trust interacts PEOU ($t = 0.754$, $p = > 0.05$), which also show the Beta to be negative (-0.017). However, there was a significant moderating effect when PU interact with trust to predict OBB ($t = 2.694$, $p = > 0.005$). This result is also consistent with the theoretical and conceptual meaning of the variables and in line with the prior assumption of the current study. Overall, the relationship between PEOU and PU were rejected for the direct relationship. However, for the indirect relationship, the moderating relationship between trust, PEOU and OBB was not rejected while for the moderating relation between trust, PU and OBB was rejected.

Effect size and Predictive Relevance

The effect size outlines the potential effects of specific exogenous latent variables on endogenous variables. The general criteria for evaluating f^2 include the values of 0.02(small), 0.15(medium), and 0.35(large) (Cohen, 1988).

Table 4.5: f-Square and R-Square

Constructs	OBB	Effect Size
PEOU	0.015	Small
PU	0.105	Medium
Trust	0.026	Small
R-Square		
Construct	R Square	R Square Adjusted
OBB	0.276	0.267

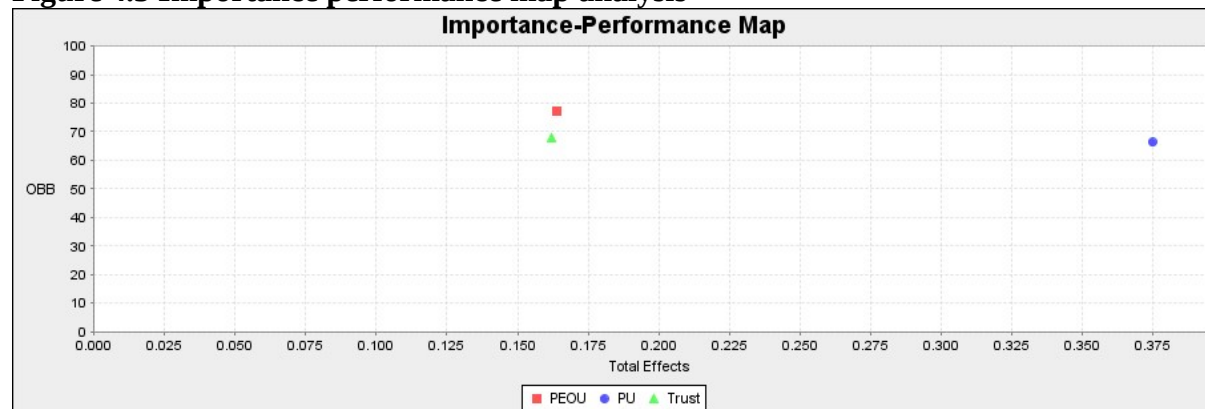
As can be seen from Table 4.5, based on the standards highlighted by Cohen (1988), it can be seen that PEOU has small effect and PU has a medium effect size, while trust has small effect on OBB. It also shows that all the variables accounted for 28% variance in online buying behaviour which is considered moderate according to Chin (1998).

Table 4.6 Predictive accuracy (Qpredict) of the model

	RMSE	MAE	MAPE	Q ² _predict
OBB2	1.234	0.984	43.418	0.024
OBB4	1.154	0.909	39.393	0.118
OBB7	1.136	0.931	40.375	0.175
OBB3	1.228	1.004	47.233	0.093
OBB5	1.223	0.974	45.471	0.174

Table 4.6 shows the PLS model demonstrates predictive relevance, it accurately predicts the data points of the indicators. A Q² value greater than zero for a particular latent dependent variable indicates that the PLS path model is predictively relevant for that target variable. Researchers should assess the prediction statistics by comparing the PLS model against a linear model benchmark (Shmueli *et al.*, 2019). From the criteria as stated by Hair *et al.* (2019), If none of the indicators in the PLS model produce higher prediction errors compared to the naïve LM benchmark, the model has high predictive power. Therefore, from the Table 4.6, it can be said that the model has a high predictive accuracy.

Figure 4.3 Importance performance map analysis



The diagram shown in Figure 4.3 represents the rescaling process of latent variable scores, converting them into a scale of 0 to 100 (Höck *et al.*, 2010; Kristensen *et al.*, 2000). The mean score of each construct on this scale indicates its performance, where 0 denotes the lowest and 100 indicates the highest performance. As per Figure 4.3, the construct PEOU, PU and trust have the performance score of 70%, 60%, and 60% respectively. Therefore, in terms of performance, all the construct can be said to perform of 60% and above. However, as regard to importance, it can be seen that on the scale of 0-1, among all the variables only PU has a value of 0.375, followed PEOU and trust. The analysis is in line with theoretical assumptions of the moderation model suggesting that the aforementioned independent variables if left alone could not adequately predict OBB. In other words, more importance should be given to these constructs to ensure that their interaction with trust lead to a significant increase in online buying behaviour by the target consumers.



4.2 Discussion of findings

The major objective of this study is to examine the moderating effect PEOU and PU in online buying behaviour among postgraduate students in ABU Zaria. Results from the collected data signified that PEOU has positive and significant relationship with OBB. These findings agree with the study of (Kim *et al.*, 2020; Syaharani & Yasa, 2022; Al-Gahtani *et al.*, 2007) found that PEOU significantly influenced consumers' online buying behavior in the context of e-commerce platforms. They argued that online shopping platforms should be designed in a way that enhances users' perception of ease of use to encourage online buying behaviour, and contradicts the findings of Chen and Barnes (2007). Similarly, PU was found to have a positive and significant relationship on OBB. This finding is in line with the study of (Syaharani & Yasa, 2022; Kim *et al.*, 2020; Chen and Barnes, 2007; Venkatesh *et al.*, 2003). According to Kim *et al.* (2020), perceived usefulness is a significant factor influencing consumers' online buying behaviour in the context of e-commerce platforms. This implies that the more the ease of using the system to shop, the more people will engage in online buying.

5. CONCLUSION AND RECOMMENDATIONS

The study concludes that perceived ease of use and perceived usefulness are critical factors in enhancing students to engage in online buying behaviour of postgraduate students of ABU Zaria. The more the perceived ease of use and perceived usefulness, the more students will engage in online buying behaviour. Therefore, the study recommends that online vendors should emphasize the usefulness of the online shopping experience to customers. This can be achieved by offering a range of benefits to customers such as convenience, easy payment options, quick and reliable delivery. This is because consumers are more likely to make online purchases if they feel that using a system to buy a product enhances their performance in visiting other websites. Lastly, this study contributes to online buying behavior literature by documenting the effect of perceived ease of use and perceived usefulness in online buying behaviour of postgraduate students.

5.1 Limitation and Recommendations for further Research

The result of the study may be limited to PG students only, because of their knowledge of the Information Communication Technology. Therefore, another separate research may have to be conducted for others such as businessmen, civil servants among others, as they may have different online buying attributes.

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