

# Trust as a Mediator in Nigerian E-Commerce: Impacts on Consumer Behavior, Product Quality, and Convenience

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## Abstract

Our study investigates the mediating role of trust in online buying behavior among consumers in Nigeria, where e-commerce adoption faces unique challenges due to systematic trust deficits. Using a quantitative research methodology, data was collected from 300 respondents through structured questionnaires and analyzed using Hayes Process Macro in SPSS. The findings indicate that trust significantly impacts online purchasing decisions, serving as a crucial mediator between product quality, convenience, and consumer behavior. These results emphasize the importance of building and maintaining consumer trust to boost online sales in emerging markets, particularly the Nigerian market. For e-commerce businesses, this means prioritizing strategies that foster trust, including improving product quality, ensuring convenient and reliable service, and maintaining transparent communication channels.

## Keywords

Trust, Consumer Behavior, E-Commerce, Product Quality, Convenience, Emerging Markets

## 1. Introduction

World Bank data indicates that global internet penetration rose from 6.5% in 2000 to 64.5% in 2023 (World Bank, 2023). Nigeria records a phenomenal growth in internet penetration from 0.5% in 2000 to 57.3% as of March 2023. With this ubiquitous internet adoption, consumers, organizations, and nations worldwide are

substantially transforming how they interact. From e-government to the way people conduct their exchange relations, particularly shopping. As a result, e-commerce has become an integral part of the global economy, with online shopping featuring prominently in the ensuing economic sociology of modern consumers.

Nigeria, in particular, is witnessing an increasing adoption of online shopping engagements. (Ariana, 2016) projects that the number of online shoppers in Nigeria will rise from 7.9 million in 2020 to 25 million in 2025. Other indicators show a corresponding rise in online transactions in Nigeria. For instance, as of 2024, the (Nigerian Communications Commission, 2021) reports that the total value of electronic payments in Nigeria has continued to grow significantly such that the electronic payment transactions in Nigeria reached N234.4 trillion (\$14.35 billion) from N128.2 trillion (\$330 billion) in 2019 to N142.3 trillion (\$365 billion) in 2020, representing a 10.99% growth rate. Again, the rise in digital channels for remittance payments is experiencing an unprecedented increase, and the number of users is expected to amount to 56.94k users by 2028 using digital channels such as mobile money and bank transfers. (Statista, 2024) predicted that the transactional value in the digital remittances market is projected to reach US\$162.70 m in 2024. It is, therefore, expected to show an annual growth rate (CAGR 2024-2028) of 5.14%, resulting in a projected total amount of US\$198.80 m by 2028. With the leap in online shopping, researchers are increasing their attention to understanding factors that encumber online shopping. For example, studies on the antecedents of trust and how it affects and mediates consumers' online buying behavior provide evidence that trust is critical in shaping consumers' online purchasing decisions (Bai et al., 2020; Gefen et al., 2003; Kaur & Singh, 2021; Kim & Park, 2019; Singh & Saini, 2021; Wang, Wang, & Wu, 2021; Yang & Lee, 2021; Zhang & Liu, 2021). Also, in Nigeria, some of the few studies suggest that trust is a significant barrier to the growth of e-commerce (Ekeh, Aduloju, & Abayomi, 2021).

We use trust in the same sense as used by (Lee & Turban, 2001) as “the expectation that an online seller will deliver the promised product/service to the buyer on time and with an acceptable level of quality.” However, some Nigerian studies suggest the need for further investigations that provide fuller insight into the antecedents and mediating role of trust on consumer online purchasing decisions (Akinyemi & Aladesanmi, 2021; Akpan & Udoh, 2021; Idris, Aliyu, & Azeez, 2021). Accordingly, this paper seeks to address this gap in the literature by examining the mediating role of trust on consumer online buying behavior in Nigeria. Specifically, we aim to investigate the antecedents of trust, its mediating role, factors that influence trust, and the impact of trust on consumers' online buying behavior in Nigeria. The theory of reasoned action, which postulates that individuals are motivated to engage in behaviors that are perceived as having positive outcomes and are consistent with the expectations of their social groups, will be used to provide a framework for this investigation. The study will also examine the implications of the findings for e-commerce businesses operating in Nigeria.

The paper's significance lies in its potential to provide valuable insights into how trust influences consumers' online buying behavior in Nigeria and offer recommendations for businesses to improve trust in their online platforms. The study's findings will also contribute to the literature on the mediating role of Trust on consumer online buying behavior in emerging economies. After this brief introduction, the rest of the paper discusses the issues that can be thought to be behind the slow growth of online purchasing in Nigeria and are the inspiration for this study. The researcher will try to ask questions that will provide answers to what the role of Trust is on consumer behavior of online shoppers, the kind of relationship that exists between product quality and Trust, and how Trust mediates the relationship between product quality, convenience, including information, and consumer behavior. These findings will allow the researcher to delve into the minds of the consumers to understand why they react negatively or positively to online shopping in Nigeria. The study thus seeks to discover the causalities of online shopping behavior or the factors that affect online shopping behavior among Nigerians, predominantly when mediated by trust.

## 2. Literature Review

### 2.1. Theory of Reasoned Action

The Theory of Reasoned Action (TRA) provides a robust foundation for understanding consumer behavior in various contexts, including online shopping. This social psychological theory posits that individuals' behavioral intentions are shaped by their attitudes and subjective norms, which are further influenced by beliefs about the outcomes of a behavior. TRA has been widely adopted in e-commerce research to explain consumer decision-making processes, including trust-related decisions (Kaur & Singh, 2021).

In the context of e-commerce, trust plays a critical role in reducing perceived risks associated with online transactions, particularly in emerging markets like Nigeria, where infrastructural gaps and fraud are prevalent. To enrich this theoretical foundation, this study complements TRA with insights from trust-specific theories such as (Mayer et al., 1995) Integrative Model of Organizational Trust and (Harrison McKnight et al., 2002) Initial Trust Model. These frameworks highlight the multifaceted nature of trust, including ability, benevolence, and integrity, which are critical in e-commerce contexts. Trust in online platforms often stems from consumers' perception of sellers' competence (ability), ethical practices (benevolence), and predictability (integrity), making it an indispensable factor in determining online consumer behavior (Gefen et al., 2003).

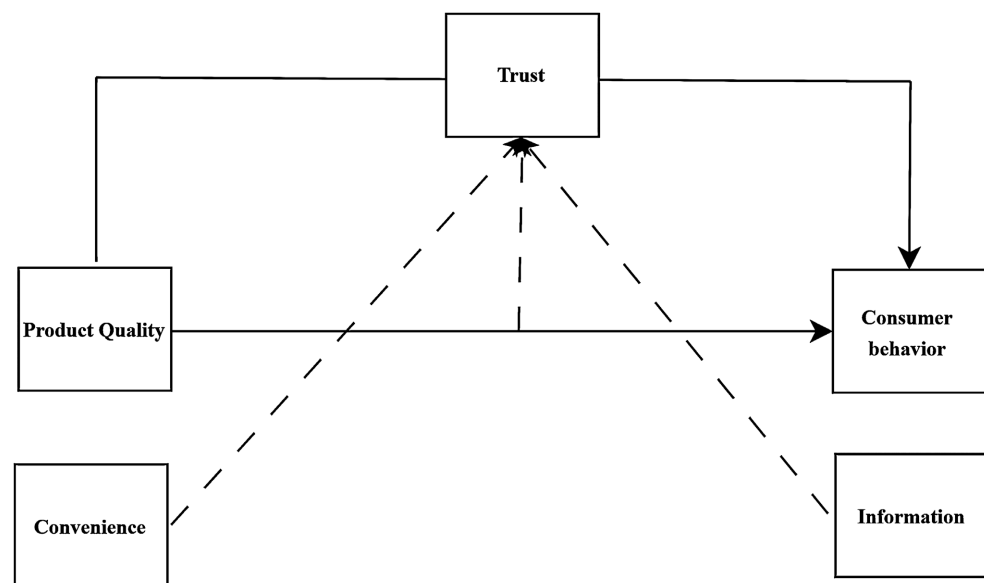
While developed markets have extensively studied trust antecedents, there remains a paucity of research on how they manifest in emerging markets like Nigeria. Unlike established markets, where reliable delivery systems, consumer protection laws, and digital literacy are prevalent, Nigeria faces unique challenges that complicate trust formation. For example, fraudulent practices and inconsistent delivery services reduce trust in e-commerce platforms, necessitating studies like

this to explore trust as a mediator in these contexts. This study bridges this gap by examining trust as a mediator influenced by product quality, convenience, and information—factors often underexplored in Nigerian settings.

Incorporating these complementary theoretical perspectives allows us to capture the complexities of trust in online shopping behavior. The conceptual framework developed for this study builds on TRA while integrating the multidimensional nature of trust from (Mayer et al., 1995) and (Harrison McKnight et al., 2002). This synthesis provides a more holistic understanding of the factors influencing consumer behavior in the unique context of Nigerian e-commerce.”

## 2.2. Theoretical Model

The research model presents a suitable model to explore the factors influencing consumer behavior toward online shopping in Nigeria. **Figure 1** is a model framework on the relationship between the predictor variables and Online Shopping. The conceptual framework shows the significant factors affecting consumer behavior and shopping online in Nigeria. These factors include Trust, product quality, convenience, and information.



**Figure 1.** Conceptual framework illustrating the mediating role of trust in consumer behavior.

### 2.2.1. Consumer Behavior

Consumer behavior is an essential concept, encompassing all actions and decisions related to purchasing, consuming, and disposing of goods, services, time, and ideas. (Kabadayi & Price, 2014; Khatri, 2021) emphasize that consumer behavior involves choices made in retail locations, influenced by various stimuli.

How customers feel or think about a business, its goods, and its services justify their behavior. It is based on various sources, including marketing, reviews, social media, public relations, etc. Precedually, the consumer is exposed to a brand through targeted information sharing from whence their perception is influenced.

According to unique interests, requirements, and expectations, each person interprets these inputs and develops a perception of the brand or product. In other words, a customer's perception of a specific brand is shaped by their knowledge of the product, its promotion, and how others have responded (Abdelfattah et al., 2015; Koch & Benlian, 2015).

Businesses frequently research consumer buying behavior to boost sales and profits. The idea of consumer perception helps us understand why people choose to accept or pass on particular products. This hypothesis comprises the self-perception, price perception, and benefit perception categories. The study of self-perception examines how a person's actions, worldview, and emotions affect their purchase decision (Bem, 1972). Price perception researches how a person decides how much to pay for something based on their assessment of its value (Martin, 2022). Benefit perception studies how a person evaluates the benefit they would receive from owning a particular item (Pluta-Olearnik & Szulga, 2022). By examining consumer perception, retailers can learn how their customers view their products and brands. Marketing and advertising strategies may be developed using the information to keep current clients and win over new ones. Self-perception theory looks at how someone might comprehend their behavior more deeply. It examines people's motivations and values that lead them to purchase particular goods and determines whether or not they value buying goods with a beneficial social impact, such as those with a lower environmental impact. Those who consider themselves socially conscious may focus more on the effects of their purchasing decisions than those who do not.

***Hypothesis 1:*** Trust will directly affect consumer online shopping behavior.

### 2.2.2. Product Quality

The desire to own high-quality goods also affects customer behavior when purchasing online in Nigeria. (Usman & Kumar, 2021), state that service quality is a key factor affecting consumer behavior and reflects the degree to which services meet consumer expectations. Similarly, (Park & Kim, 2003) define product quality as "one of the main elements influencing purchasing intentions among customers," highlighting its central role in shaping consumer behavior at online retailers.

Consumer perceptions of websites are strongly influenced by the quality of customer service provided by online retailers. When customers perceive that online services are efficient and reliable, they are more likely to make purchases online (Çelik & Yilmaz, 2011). Furthermore, (Liao & Cheung, 2005) confirm that service quality enhances users' acceptance and usage of online platforms. Other researchers, such as (Hidayat et al., 2016; Tarhini et al., 2018), have found a strong positive correlation between high-quality service delivery and consumers' inclination to shop online.

Everyone desires quality, and no one wishes to receive less value for their money. This idea reinforces that quality perception directly influences whether consumers accept or reject online shopping. The value for money, reflected in product quality, is critical in this regard. Research designed to assess this variable

aims to gather insights into how consumers' perceptions of product quality affect their online buying behavior.

Furthermore, product quality not only influences trust in online platforms but also plays a direct role in shaping consumer behavior. Therefore, product quality serves as both an antecedent to trust and a direct determinant of consumer behavior in online shopping.

***Hypothesis 2:*** Product quality is directly related to trust in online shoppers.

***Hypothesis 3:*** Product quality is directly related to consumer behavior.

### 2.2.3. Trust

Recent research highlights the evolving landscape of e-commerce and consumer trust, particularly in Nigeria and other emerging markets. For instance, studies such as (De Silva, 2022) emphasize how digital payment systems and consumer protection mechanisms foster trust, which in turn impacts online purchasing behavior. Similarly, (Bai et al., 2020) explore how social proof and privacy concerns directly influence trust, affecting consumer decisions.

Key statistics from the Digital 2024: Nigeria report also emphasizes the growing digital adoption in the region. With 103 million internet users in Nigeria (45.5% penetration) and 36.75 million social media users, the role of trust in facilitating online transactions becomes increasingly significant as more consumers engage with digital platforms. Moreover, the median age of 17.3 years indicates a youthful population that is likely to be more digitally savvy but also potentially cautious in terms of trust when it comes to online purchases.

Hence, (Gilbert, 2018) opined that trust is the consumer belief that parties involved in a business transaction will fulfill their obligations, an expectation of transaction that motivates the consumer to execute the order. The analogy is followed by (Abdulgani & Suhaimi, 2014), who defined Trust as a willingness to depend on or expose oneself to another individual or party when expected outcomes are uncontrollable. Trust, therefore, encapsulates integrity, benevolence, ability, and predictability, which lead to behavioral intention toward online shopping (Lee & Turban, 2001). For a trade between two parties, there must be a great deal of Trust. This is why brands and businesses have identified trust as an essential value that must be present in their value chain. If traditional business routes have been anchored on Trust, what becomes of a transaction done remotely without physical contact?

(Jubayer, 2015) alleges that these skepticisms span from a lack of trust and associated risks. Backing this argument, (Gefen et al., 2003) highlighted that people in low-income countries are more careful about online shopping because they fear taking threatening risks and lack trust in the platform. The implication is that their behavior towards online shopping is more likely to be negative than positive. (Uwemi & Khan, 2018) emphasized that the success of online shopping is dependent on Trust. They must note that building economic relationships is primarily due to a greater perception of doubt and risk. (Gefen et al., 2003), in reviewing related studies, it was discovered that consumer intentions and attitudes toward

web-based shopping are greatly influenced by the extent to which they trust and perceive related benefits. The inability to establish consumer trust will undoubtedly bring about business failure for web-based business vendors (Hidayat et al., 2016). When trust is present, online shopping activities will be better adapted.

Furthermore, due to a lack of Trust among consumers and associated risks, patronage of online shops continues to be low globally. (Usman & Kumar, 2021) support this argument by noting that a lack of Trust negatively impacts online retailing. (Saprikis et al., 2021) take the significance of Trust beyond just online shopping and technology, highlighting that it affects consumption. (Mbayo Kabango & Romeo Asa, 2015) asserted that Trust helps accept online transactions and improves consumer commitment and satisfaction, leading to eventual loyalty. Trust is therefore presented as a good source of a competitive advantage, which is a significant factor that influences the behavior of consumers when shopping online.

People choose what or who to trust based on their perception of other factors. In the case of consumer behavior, we identify that consumers' Trust is inspired by their perception of value for their money. In the absence of this Trust, wherein they perceive potential fraud and disservice, they are less likely to proceed with any deals thereof.

This particular variable is the mediating variable that the researcher hopes, in one way or another, may or may not influence the extent of the relationship that exists between the independent variable and covariates. It seeks to determine the extent to which consumers' perception of the trustworthiness of online platforms and online shops is trusted.

**Hypothesis 4:** Trust mediates the relationship between product quality and consumer behavior in online shopping.

#### 2.2.4. Convenience and Information

A major significant influence on online shopping, which scholars widely highlight, is convenience, which provides a distinct feature of shopping from traditional stores. (Deichmann et al., 2011) agree with the assertion that convenience has motivated more online shoppers than others. This assertion is backed by a study by (Tarhini et al., 2018), which found that persons who purchase online are liable to seek convenience. Again, Omotayo and (Deichmann et al., 2011) asserted that customers who prefer to patronize online shops were more convenience-oriented and less experience-oriented, causing them to perceive convenience as the most predicted determinant for establishing buying decisions in an online environment. Contrary to traditional shopping, (Huseynov & Yildirim, 2016) assert that consumers see shopping online as convenient because they don't have to leave their homes and pass through the hurdles of traffic search for packing space, and they would also save transportation costs.

Since everyone desires convenience, we see a direct relationship between convenience and consumer behavior toward online shopping, as this research pointed out. Typically, people abhor stress; hence, people are more likely to take online shopping over traditional shopping when it promises them more convenience.

This particular variable is the other independent variable identified as a covariant for analysis purposes. It seeks to discover how consumers' perception of convenience affects their decision to purchase online.

**Hypothesis 5:** Trust mediates the relationship between convenience and consumer behavior of online shopping.

### 2.2.5. Information

Another salient factor that influences consumer behavior online is awareness. Without the knowledge of a thing, an idea, or a service, people would not desire or attempt to access it. Therefore, (Liu et al., 2022) defined awareness as human perception and intellectual reaction to what they consume or use. Consequently, we can say that consumers know when a customer has knowledge and information about a system or technology's abilities, associated features, possible usage, gains, and costs (Liu et al., 2022), adds that awareness is usually the first step of the buying process at which people who are not previously in the know of the product or service get to be familiar with it. As the first step, a consumer dwells on things capable of leading to the Customer's interest, followed by other stages in the purchasing process. Hence, before we talk about consumers even considering buying online, they must first be aware that such an option for purchasing what they need exists and how it works with associated costs and benefits.

Hence, (Molla & Heeks, 2007) put forward that there is a positive relationship between awareness and consumer intention to buy. In Nigeria, however, not as many people as in more developed nations are digitally literate, especially in systems requiring a lot of navigation and mastery. Therefore, they are unaware of the possibility of making purchases online or that it exists. When they do, they are unaware of how it functions and gains and may still be mainly opposed to it due to trust issues.

Again, literature and real scenarios point to the fact that without creating awareness, an idea or a product is as good as non-existent in the minds of several who would have ordinarily wanted or had good use for them. Therefore, the need for or relevance of awareness in consumer behavior is non-disputable. It is a straightforward determiner of the extent to which consumers may accept and patronize an online store.

These particular variables are another independent variable identified as a covariant for analysis purposes. It sought to find out the information available to consumers that affect their decision to buy online.

**Hypothesis 6:** Trust mediates the relationship between information and consumer behavior in online shopping.

## 3. Methods

### 3.1. Participants

The research focused on Nigeria consumers who had partaken in purchasing goods and services over the internet, typically through websites or mobile apps

(that is, Konga mobile app, Jumia, Yudala mobile app, Slot) or platforms for seeking the unique and hard-to-find products such as medicines. The research was conducted during November and December 2022. Structured questionnaires, the suitable sampling technique for sourcing primary data, were used in this study. Questionnaire administering is the best method for achieving flexibility, standardization, convenience, and anonymity of respondents through a feasible randomized sampling of units. The speed in reach of an online questionnaire to target the population and ease in collecting a range of data describes significant advantages it has over other techniques (Evans & Mathur, 2005). The respondents' details demographically cover the age bracket with the corresponding gender. Further questions concerned their behavior toward online shopping, how the payment and personal information are treated with confidentiality, the product quality, convenience of the shopping experience, and availability of up-to-date information about the products. Although the number of missing data is relatively low, mode imputation (the missing observations were replaced with the most frequent value) was implemented because it helps reduce the risk of introducing bias into the results and preserve the data distribution (Salgado et al., 2016).

### 3.2. Sample Determination and Collection

The predetermination of sampling unit's representative of a population is the first condition of sampling theory and survey methods (Taherdoost, 2016). For a moderately large population, a sample size of at least 30 or 50 is enough to achieve the desired level of decision. The purposive sampling technique was initially adopted to identify a particular subgroup of online shoppers among people with internet access who are more likely to contribute relevant information about their purchasing habits and opinions toward online shopping.

The sample size of 300 respondents was determined with reference to statistical conventions for confidence intervals and tolerable error margins. Using a 95% confidence interval and a 5% significance level, the sample size exceeds the minimum threshold for robust analysis in multiple regression models. Additionally, the study's purposive and probabilistic sampling approaches were designed to ensure representativeness and reliability of the findings. While a priori power analysis using G\*Power was not conducted, the sample size aligns with established recommendations for detecting medium effect sizes in regression analysis (Cohen, 2013). This ensures the adequacy of the sample for hypothesis testing.

Further, probabilistic sampling, which can accommodate less bias or other errors, was employed to pick a representative sample of online consumers that could offer a more precise and generalizable understanding of the population of interest. For the most frequently used confidence interval of 95%, the corresponding 5% significance level describes the tolerable error that either the point or interval estimator can allow with 1.96 equivalence to Z-table.

### 3.3. Measures

The questionnaire was qualitatively based on the preceding research and took 24 Likert Scale (1 Strongly agree, 2 Strongly disagree, 3 Disagree, 4 Strongly disagree, 5 Neutral) statement with two demographic variables like Age bracket and Gender. The reliability and connection in the statements are validated by studies like (Lim et al., 2016) and (Uzun & Poturak, 2014). The statements were deduced from seven different studies.

The questionnaire was pretested with a pilot group of 30 respondents to ensure clarity and relevance of the items. Construct validity was assessed through exploratory factor analysis (EFA), which confirmed the alignment of items with their respective constructions. Internal consistency was validated using Cronbach's alpha, with all variables scoring above 0.7, meeting the recommended threshold (Bhaskar & Manjuladevi, 2016).

To operationalize product quality and its impact on online shopper behavior, respondents were asked to evaluate their concerns about product performance and how negative experiences influenced their purchasing decisions. Key measures included whether they would switch products after a bad experience, concerns about sellers offering products that do not perform as expected, and whether delivered products met their quality expectations. This assessment provided insight into how product quality directly impacts the frequency and nature of online shopping behavior. To operationalize the role of trust as a mediator between product quality (Gefen et al., 2003; Jarvenpaa & Todd, 1996; Verhoef & Langerak, 2001) and online shopper behavior, we assessed respondents' concerns about product reliability, alongside their trust in the seller. Measures included concerns about defective products, product quality falling short of expectations, and the overall trustworthiness of the retailer in delivering promised quality. Trust was operationalized through statements regarding the retailer's commitments and the perceived alignment with customers' best interests. This setup captured the indirect effect of trust on shopping behavior through the lens of product quality. To operationalize convenience and its influence on online shopper behavior, mediated by trust, respondents were asked to evaluate several aspects of the online shopping experience. These included the ability to shop 24/7, ease of comparing products, and on-time delivery. Trust was then measured to see how these conveniences influenced consumers' trust in the retailer. Statements assessing trust included whether the retailer kept promises and acted in the customer's best interests (Akpan & Udoh, 2021; Fernandes et al., 2021). This operationalization captured how convenience, via trust, impacted the frequency and nature of online shopping behavior. To operationalize the effect of information on online shopper behavior, with trust as a mediator, we measured how consumers rely on information sources like social media and product websites when making purchasing decisions. Items included whether the information provided was adequate, whether detailed product information was available, and how much weight respondents placed on others' opinions (Fernandes et al., 2021). Trust was assessed

by evaluating the reliability and promises of the online retailer, capturing how accurate and comprehensive information influences trust and, subsequently, online shopper behavior. To operationalize online shopping behavior (Park & Kim, 2003), respondents were asked to report the frequency of their online purchases, ranging from multiple times a week to less than once every six months. This measure provided a clear understanding of the respondents' online shopping habits, allowing for a quantitative assessment of how various factors like product quality, convenience, trust, and information influence their purchasing behavior.

#### 4. Data Analysis

The collected data were analyzed using descriptive statistics (percentage and frequency) and inferential statistics (Hayes regression). Cronbach's alpha values were estimated to verify the level of correlation in the questionnaire items for assessing the target construct and examining the internal consistency across several items. The findings are significant at a 95% confidence level.

To ensure the robustness of our findings, Hayes' Process Macro was employed, which calculates confidence intervals for mediation effects using resampling techniques, thereby addressing the potential for non-normality in indirect effects. Additionally, missing data were addressed using mode imputation, preserving data distribution and reducing bias. Descriptive statistics were reviewed to confirm the representativeness of the sample, ensuring reliability and stability in the results.

#### Hayes Regression

Hayes Process Macro in SPSS was adopted for its adaptability to accommodate regression of various curves (such as Linear, Logistic, and Poisson) and its bootstrapping approach to estimate the indirect effect without satisfying the normality of the residuals' assumption. As (Abbu, 2017) suggests, the direct and indirect effects under a comprehensive mediation in a hypothesized relationship are feasible in Hayes' Process Macro. For the process-based mediation analysis, a five-point (or more) Likert Scale, although they are ordered categorical measures with the same interval spaced values, are adopted as continuous, alongside the advancement that is not limited to describing magnitude in some circumstances which conventional method for taking indirect effects only measures. As a result, assessments of the paired or crossover relationships between online shopper behavior, Trust, product quality, convenience, and information were the explored constructs to determine model fit.

#### 5. Results

The descriptive statistics (Table 1) revealed that 58% of participants were male, and 70% were between 18 and 29. 71% of the female participants were between 18 and 29. The information showed that participants' decisions to shop online are significantly influenced by their online experiences. Consequently, the results

have identified that this is consistent with the general trend in Nigeria, where more men engage in online shopping than women. Most respondents were in the younger generation, with the largest group being between the ages of 25 and 34, followed by those between 18 and 24. These results indicate the trend in Nigeria, where the younger generation likes to shop and spend money online. In 2018, 63% of Nigerian internet buyers were men, while 37% were women. This disparity between the genders is further highlighted by the fact that men in Nigeria are known to spend more money online than women (Aziz & Wahid, 2018). Overall, the results of this study provide insights into the online shopping behavior in Nigeria, which could be helpful for e-commerce businesses and online retailers looking to understand the target market better.

**Table 1.** Descriptive statistics of the socio-demographic data.

		AGE			
		18 - 29 Count (%)	30 - 39 Count (%)	40 - 50 Count (%)	More than 50 years Count (%)
GENDER	Female	34 (70.8)	14 (29.2)	0 (0.0)	0 (0.0)
	Male	68 (55.7)	46 (37.7)	5 (4.1)	3 (2.5)

### Model Fit

To focus on the essential components of the research, Factor analysis was considered (Table 1). Thus, absolute values of less than 0.3 were suppressed for higher coefficients. The correlation matrix revealed numbers larger than 0.4 in 16 out of 20 statements, and 4 did not score over 0.4, which is the minimum acceptable value [53]. The Berlet's test of sphericity is significant at a 5% significance level. The KMO of Sampling Adequacy was 0.737 (Greater than the minimum requested 0.6 for further analysis), while it is also significant at 1% ( $p < 0.01$ ). In a bid to examine whether several items that propose to measure the same general construct produce similar scores (Internal consistency), the research also made an analysis using Cronbach's Alpha where all variables score over 0.7 (minimum value 0.7 (Bhaskar & Manjuladevi, 2016).

## 6. Hypothesis Testing

The results in Table 2 indicate that all hypotheses were supported. Specifically, Trust does not mediate the relationship between online product information and consumer behavior. On the other hand, Trust positively impacts online consumer decision-making (H1:  $\beta = 0.1279$ ;  $p < 0.01$ ), and product quality does not impact consumer trust. Additionally, the mediating role of Trust in the relationship between product quality and consumer behavior was found to be significant at a 1% significance level ( $p < 0.01$ ). Similarly, the mediating role of Trust on the effect of convenience on consumer behavior was found to be significant at a 1% significance level ( $p < 0.01$ ) (Table 3).

**Table 2.** Cronbach's alpha and loadings on factor analysis.

Statements	Cronbach's alpha	Product quality	Trust	Convenience	Information
PQ1	0.724	Eliminated from factor analysis due to its low commonality			
PQ2		0.742			
PQ3		0.735			
PQ4		0.674			
PQ5		0.702			
TR1	0.704	0.786			
TR2		0.609			
TR3		Eliminated from factor analysis due to its low commonality			
TR4		0.622			
TR5		0.71			
CO1	0.71		0.647		
CO2			0.743		
CO3			0.623		
CO4			Eliminated from factor analysis due to its low commonality		
CO5			0.6		
IN1	0.717		Eliminated from factor analysis due to its low commonality		
IN2			0.674		
IN3			0.71		
IN4			0.607		
IN5			0.752		
Total rotation sum of squared loadings		2.56	2.546 2.199	2.49	2.199
Percent of total variance explained		12.8	25.532	37.982	48.979

Note: PQ = Product Quality, TR = Trust, CO = Convenience, and IN = Information.

**Table 3.** Mediating and direct role of trust.

Hypotheses	Path	<i>p</i> value	$\beta$	Decision
H1	Trust $\rightarrow$ Consumer behavior	0.0370*	0.1279	supported
H2	Product quality $\rightarrow$ Trust	0.0784**	0.1202	supported
H3	Product quality $\rightarrow$ Consumer behavior	0.0002*	0.4282	supported
H4	Product quality (Trust) $\rightarrow$ Consumer behavior	0.0006*	0.3959	supported

**Continued**

H5	Convenience (Trust) → Consumer behaviour	0.0054*	-0.2264	supported
H6	Information (Trust) → Consumer behaviour	0.8283	0.0165	Not supported

(\*) indicates significance at 5%, and (\*\*) implies 10% significance.

## 7. Discussion

In this study, we analyzed the participants' responses to understand better the online shopping habits of Nigerians. Our findings revealed a higher representation of males than females among the respondents, consistent with the general trend in Nigeria, where more men engage in online shopping than women. Most respondents were in the younger generation, with the largest group being between the ages of 25 and 34, followed by those between 18 and 24. These results indicate the trend in Nigeria, where the younger generation likes to shop and spend money online. In 2018, 63% of Nigerian internet buyers were men, while 37% were women. This disparity between the genders is further highlighted by the fact that men in Nigeria are known to spend more money online than women (Usman & Kumar, 2021). Overall, the results of this study provide insights into the online shopping behavior of Nigerians, which could be helpful for e-commerce businesses and online retailers looking to understand the target market better.

The study results show that individuals in Nigeria with a monthly living cost of about #30,000 engage in online shopping about three times a month despite the average cost per purchase being #10,000. According to the Mastercard Bureau, the top items Nigerians spend money on online are data top-ups (94%), apparel (64%), and beauty products (56%). Recent studies have reported that, on average, Nigerians spend 397 minutes (six hours and 37 minutes) per day online in the second quarter of 2022, a decrease of 12 minutes from the previous quarter, the most significant quarterly decline ever recorded. However, this study's results show that the participants' average online time is less than 30 minutes.

Trust plays a significant role in shaping consumer behavior towards online shopping ( $p < 0.0370$ ). Reducing or eliminating business risks enhances Trust (Gefen et al., 2003). An important relationship between consumer trust and product quality was also observed ( $p < 0.0784$ ). Consumer trust is a crucial aspect of electronic commerce as consumers often harbor skepticism and mistrust towards the workings, outcomes, and product quality of e-commerce transactions. The relationship between product quality and consumer behavior is significant ( $p < 0.0002$ ), and trust partially mediates the relationship. Without the ability to physically inspect and test products, customers must rely on the product descriptions and trust them before purchasing. Trust is a major source of customer dissatisfaction with online shopping (for example, defective products, unmet expectations, etc.). Brand trust, or a customer's level of Trust in a company, can

impact a customer's attitude toward the company and drive loyalty (Douglass, 1977). This view is supported by several other studies (Wang, Wang, & Wu, 2021; Zhang & Liu, 2021) which found that brand trust plays a crucial role in determining customer loyalty.

Similarly, Trust also significantly mediates ( $p < 0.0054$ ) the influence of convenience on consumer behavior, as opposed to information. Our analysis of the statements showed that people do not heavily rely on information found on websites for online transactions, possibly due to difficulty finding it or a lack of Trust in the information.

## 8. Conclusion

This study highlights the central role of trust as a mediator in shaping online consumer behavior in Nigeria. Trust amplifies the impact of product quality and convenience while addressing consumer concerns about fraud, data security, and the reliability of e-commerce platforms. These findings emphasize the need for e-commerce businesses to prioritize building trust through reliable service delivery, robust data protection measures, and transparent communication channels.

Our research also confirms that convenience plays a significant role in Nigerian consumers' decision to shop online, aligning with global trends in e-commerce. However, the perceived convenience of online shopping is often diminished by challenges such as navigating poorly designed websites, delayed deliveries, and inadequate product information. Despite these challenges, convenience remains a significant driver of online shopping behavior, hence, the need for businesses to improve website usability, streamline delivery processes, and ensure accurate product descriptions.

Furthermore, the findings reveal a strong correlation between customer interest in online shopping and the quality of products sold. Dissatisfaction with product quality frequently leads to distrust and avoidance of future online purchases. Therefore, online retailers must prioritize delivering high-quality products and fulfilling promises to enhance consumer trust and foster loyalty.

While variables such as perceived risk and social influences are undoubtedly relevant to trust formation, they were not included in this study due to the pre-defined scope of the research. Nonetheless, these variables remain critical areas for future research. Future studies could explore the moderating effects of perceived risk and social influences on trust and online consumer behavior. Experimental or longitudinal designs could also provide insights into the evolving nature of trust, particularly in cross-cultural contexts, to enrich our understanding of trust dynamics in emerging markets like Nigeria.

This study provides actionable insights for e-commerce businesses in emerging markets. By addressing trust-related concerns and enhancing the convenience and quality of their services, online retailers can better meet consumer expectations, encourage repeat purchases, and contribute to the sustainable growth of e-commerce

in developing economies.

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## Declaration

This paper was presented at the *AIB Southeast 2024 conference*, yet it remains unpublished. We further disclose that generative AI tools were employed solely to enhance the grammar and readability of this manuscript.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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