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Consumer Perceived Risk in Online Shopping Among Students of University of Benin, Edo State

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ABSTRACT
This study empirically investigates the influence of consumer perceived risk on online shopping behavior among students at the University of Benin, Nigeria. It assesses the impact of six key risk dimensions: product, delivery, financial, security, time, and social risk. A quantitative research design was employed, utilizing a structured questionnaire administered to a sample of 396 undergraduates. Data analysis involved descriptive statistics and multiple linear regression. Findings reveal product risk and delivery risk are the most significant barriers, with high mean scores of 4.57 and 3.66, respectively. Regression analysis confirmed delivery risk (β = -6.88, $p < 0.001$) and product risk (β = -5.12, $p < 0.001$) as the strongest negative predictors. Financial and security risks had a lesser impact, mitigated by prevalent strategies like cash-on-delivery, used by 76.8% of respondents. Time and social risks were statistically insignificant. The study concludes that infrastructural and logistical challenges are the primary barriers to e-commerce adoption. It recommends that platforms prioritize reliable logistics and quality assurance, while policymakers address infrastructural deficits to foster a trustworthy digital marketplace and unlock the sector's growth potential in Nigeria's evolving economy.

Keywords: *perceived risk, online shopping, e-commerce, consumer behaviour.*

INTRODUCTION
The growth of e-commerce across developing economies has significantly reshaped consumer behavior, particularly among university students who represent a digitally literate and convenience-oriented demographic. These consumers are attracted to online platforms for their accessibility, product diversity, and 24-hour service availability. However, despite increased adoption, perceived risks or potential negative outcome associated with online transactions remains a primary inhibitor of e-commerce participation (Pappas, 2016; Chopdar et al., 2018). Studies across multiple countries have shown that factors such as delivery reliability, product authenticity, and financial security dominate consumers' hesitation to purchase online (Amaro & Duarte, 2015; Faqih, 2016). Globally, empirical evidence consistently demonstrates that perceived risk exerts a strong negative influence on purchase intention, even when e-commerce platforms provide convenience and favorable user experiences (Martin et al., 2015; Kim & Lennon, 2013). This relationship persists across diverse cultural and economic contexts, confirming that perceived risk undermines consumer trust and weakens intention to transact online (Lin et al., 2019; Liao et al., 2021). Research further indicates that trust acts as a mediating mechanism between perceived risk and purchase intention (Featherman & Pavlou, 2003; Pappas, 2016). Consequently, even technologically advanced or well-designed websites cannot fully overcome negative perceptions if consumers perceive a lack of safety or reliability (Meents & Verhagen, 2018). Studies focusing on emerging markets emphasize that infrastructural deficiencies and weak post-purchase support amplify perceived risk. For instance, delivery and product-

related uncertainties are particularly salient in developing economies where logistics networks and refund mechanisms remain underdeveloped (Ventre & Kolbe, 2020; Zhu et al., 2020). Similarly, perceived risk linked to data privacy and payment security has increased in the post-COVID era as online transactions surged (Gong et al., 2023; Alrawad et al., 2023). Research in Asia and Africa further underscores that trust-building mechanisms such as transparent return policies, real-time tracking, and verified seller systems substantially mitigate these risks (Shao et al., 2021; Chang et al., 2019).

Within the university student population often the most active e-commerce users perceived risk is heightened by exposure to product misrepresentation, delayed deliveries, and online fraud. These risk types are consistent with global findings that uncertainty over product quality, fulfillment speed, and payment protection significantly reduces purchase intention (Chopdar et al., 2018; Liao et al., 2021). Conversely, trust, familiarity, and perceived usefulness have been identified as key mitigating factors that enhance online purchase confidence (Amaro & Duarte, 2015; Pappas, 2016; Ventre & Kolbe, 2020). Understanding these mechanisms is critical for improving user satisfaction and promoting sustainable e-commerce engagement among students in developing countries. As developing economies such as Nigeria continue to experience rapid digitalization and youth-driven online activity, addressing perceived risk is essential for sustaining e-commerce growth. Studies have shown that interventions emphasizing service reliability, transparent refund policies, and secure payment systems are the most effective in reducing perceived risk and enhancing consumer confidence (Gong et al., 2023; Liao et al., 2021; Zhu et al., 2020). The study situated within the University of Benin context, seeks to identify key risk dimensions influencing students' online shopping decisions, evaluate their relative impact on purchase behaviour, and recommend strategic measures to improve consumer trust and platform credibility in Nigeria's growing e-commerce ecosystem.

LITERATURE REVIEW

The construct of perceived risk in online shopping is multifaceted. Following established literature, this study examines several key dimensions, including financial risk, product risk, delivery risk, time risk, security (privacy) risk, and social risk (Forsythe & Shi, 2003; Javadi et al., 2012). These dimensions represent the primary uncertainties consumers face when transacting in a virtual environment devoid of physical inspection. Financial risk refers to the potential for monetary loss arising from fraudulent transactions, hidden costs, or the product failing to provide value for money (Ogunsola & Akanji, 2018). It is a significant concern in online shopping, as consumers fear their financial resources may be wasted (Almousa, 2014). In Nigeria, this risk is exacerbated by prevalent online fraud, making it a critical barrier to e-commerce adoption. Product risk, or performance risk, is the uncertainty that a purchased item will not meet performance expectations or match its online description (Dai, Forsythe, & Kwon, 2014). This dimension is particularly salient, as the inability to physically examine goods before purchase can lead to receiving substandard, damaged, or misrepresented items (Coker, 2009). This fear is a primary deterrent for consumers, especially in markets with underdeveloped quality assurance mechanisms. Delivery risk encompasses concerns about delayed shipments, lost packages, or goods being damaged in transit (Masoud, 2013). It is one of the most pronounced risks in developing economies like Nigeria, where logistical and infrastructural challenges, such as poor road networks and inconsistent courier services, are prevalent (Ogunsola & Akanji, 2018). This risk directly impacts the post-purchase satisfaction of the consumer. Time risk is the potential loss of time and convenience associated with navigating complex websites, resolving issues, or waiting for delayed deliveries (Forsythe & Shi, 2003). It represents the inefficiency that consumers may encounter, which contradicts one of the fundamental benefits of online shopping saving time (Almousa, 2014). Security risk, often interchanged with privacy risk, involves the potential for unauthorized use of personal and financial information provided during a transaction (Almousa, 2014). Consumers fear that their data, especially credit card details, could be compromised or misused by retailers or third parties (Brosdahl & Almousa, 2013; Dai et al., 2014). This risk has become increasingly prominent with the surge in online transactions. Social risk refers to the potential for disapproval from friends or family resulting from a purchase made online (Ko, Jun, Kim, & Shim, 2004). It relates to the fear of a loss of status or looking foolish for using certain platforms or purchasing specific products. However, its influence is often found to

be less dominant compared to other risk dimensions (Masoud, 2013; Ogunsola & Akanji, 2018).

Consumer Behaviour and Mitigation Strategies

Empirical studies confirm that these perceived risk dimensions significantly influence online shopping behaviour, often negatively impacting purchase intention and decision-making (Zhao, Chong, & Zhao, 2024; Ogunsola & Akanji, 2018). To mitigate these risks, consumers and platforms adopt various strategies. Trust-building mechanisms, such as secure payment gateways, transparent return policies, and real-time order tracking, have been shown to reduce financial and product risks (Ogunsola & Akanji, 2018). Furthermore, the widespread adoption of cash-on-delivery (COD) payment options effectively neutralizes financial risk for many consumers, as payment is only rendered upon receipt and inspection of the product (Zhao et al., 2024).

Empirical Studies on Online Shopping Among Students

Amaro & Duarte (2015) developed an integrative model of online travel purchasing that highlighted how perceived relative advantage (convenience, price) and trust jointly shape consumers' intentions to purchase travel online. Their findings show that perceived benefits can attenuate perceived risk and strengthen purchase intention, suggesting that emphasizing convenience and clear benefits is an effective risk-mitigation strategy for e-retailers (Amaro & Duarte, 2015). Martin, Mortimer & Andrews (2015) re-examined online customer experience (OCE) and reported that higher perceived risk reduces online purchase frequency and weakens the effect of positive online experience on purchase intention. Their analysis implies that even when experience is favorable, residual risk perceptions remain a significant barrier to converting site visits into purchases (Martin et al., 2015). Thakur & Srivastava (2015) investigated Indian online shoppers and found that consumer innovativeness reduces perceived risk and thereby increases online shopping intention; risk perception operates as a mediator between innovativeness and intention. This result highlights the importance of targeting interventions (trial, demos) that increase consumer innovativeness or familiarity to lower perceived risk in emerging markets (Thakur & Srivastava, 2015).

Chen, Yen, Pornpriphet & Widjaja (2015) compared e-commerce website loyalty across cultural contexts and showed that system and information quality lower perceived risk by building trust, which in turn raises e-loyalty and repurchase intention. Their cross-cultural evidence indicates website quality and trust are universal levers for addressing risk-driven avoidance (Chen et al., 2015). Pappas (2016) empirically demonstrated that marketing strategies (clear information, guarantees, and communication) reduce perceived risk and promote consumer trust, which mediates the effect on purchase intention. He argues practitioners should combine signals (policy transparency, return guarantees) with trust-building cues to neutralize risk perceptions and increase conversions (Pappas, 2016). Faqih (2016) examined non-shoppers in a developing country and found that perceived risk (especially delivery and payment concerns) is a major predictor of reluctance to adopt Internet shopping; gender also moderated some relationships. The study suggests that when studying populations with low prior online experience, risk dimensions around logistics and payment are particularly salient (Faqih, 2016).

Chopdar, Korfiatis, Sivakumar & Lytras (2018) compared mobile shopping app adoption across countries and showed perceived risks (privacy, financial, product) negatively influence behavioral intention, with cross-country variation in which risk types dominate. Their cross-national results support tailoring risk-reduction tactics (app security, payment options) to local contexts (Chopdar et al., 2018). Meents & Verhagen (2018) examined the signaling role of product and seller information on electronic marketplaces and found that richer product and seller disclosures reduce perceived risk and promote purchase intention by improving perceived diagnosticity. Their work highlights the value of complete and credible information as a cue to lower consumers' perceived uncertainty (Meents & Verhagen, 2018). Lin, Featherman, Brooks & Hajli (2019) investigated online product presentation and gender differences, showing that richer presentation reduces perceived risk and influences purchase decisions differently across genders; perceived risk mediated the relationship between product presentation and intention. This finding indicates that product display strategies can be designed to reduce perceived risk and that gendered responses may inform targeted

presentation formats (Lin et al., 2019). Ventre & Kolbe (2020) studied emerging markets (Mexico) and showed that perceived usefulness of online reviews and trust reduce perceived risk and increase purchase intention; in their setting review usefulness was a strong mitigating factor for risk. Their study suggests that platforms operating in emerging economies should prioritize verified reviews as a way to overcome product and seller uncertainty (Ventre & Kolbe, 2020). Zhu, Li, Wang, He &

Tian (2020) modelled the influence of online reviews within an S-O-R framework and found that review cues act as stimuli that reduce perceived product/service risk (organism) and thereby positively affect purchase intention (response). The study underscores the mediating role of perceived risk in the reviews intention pathway (Zhu et al., 2020). Featherman, Jia, Califf & Hajli (2021) examined adoption of new technologies and showed that technology-specific benefit beliefs and risk perceptions jointly determine adoption; interventions that increase perceived benefits and lower salient risks accelerate uptake. Their cross-technology evidence generalizes the idea that benefit framing reduces the dampening role of perceived risk on intention (Featherman et al., 2021). Liao, Hu, Chung & Huang (2021) proposed and tested a moderated-mediation model showing that perceived risk reduces purchase intention but that specific opportunities (e.g., trust, perceived value) can moderate this effect. Their results call for integrated models that include both risk and moderating protective factors when predicting purchase intention (Liao et al., 2021).

Shao, Cheng, Wan & Yue (2021) investigated cross-border e-tailer return policies and demonstrated that generous, transparent return policies reduce perceived purchase risk and thereby enhance consumers' cross-border purchase intentions. The study provides direct operational prescriptions (return policy design) for lowering perceived risk in global e-commerce contexts (Shao et al., 2021). Gong et al. (2023) examined privacy stress and brand trust in China and found privacy-related stress remains a significant determinant of continuance purchase intention; strong brand trust partially offsets privacy stress's negative effect. Their findings emphasize that in large markets with sophisticated consumers, privacy stress is an ongoing concern requiring persistent trust investments (Gong et al., 2023). Alrawad et al. (2023) conducted a multi-country SEM analysis and identified the most salient online shopping risk sources (financial, delivery, information) and showed that sociodemographic factors shape which risks matter most; the study provides comparative empirical evidence for prioritizing risk-reduction policies by country.

Theoretical Foundation

The present study on perceived risk and online purchase intention among university students is grounded in several interrelated theories that explain how consumers evaluate uncertainty, form trust, and make purchase decisions in digital environments. The major underpinning frameworks include the Perceived Risk Theory. This model offers a comprehensive understanding of how perceived risks influence behavioral intention and actual purchase decisions in e-commerce contexts.

Perceived Risk Theory

Perceived Risk Theory, introduced by Bauer (1960), posits that consumers' decisions are influenced not only by expected benefits but also by perceived uncertainties and potential negative consequences associated with a transaction. In online shopping, where physical inspection and personal interaction are absent, risk perception becomes more pronounced (Featherman & Pavlou, 2003). This theory identifies key dimensions of risk, such as financial, product, delivery, privacy, and social risks, that shape consumers' reluctance to engage in online purchasing (Pappas, 2016; Chopdar et al., 2018). Empirical studies affirm that higher perceived risks lower consumers' purchase intention and trust in online vendors (Ventre & Kolbe, 2020; Gong et al., 2023). Thus, this theory provides a conceptual foundation for identifying and categorizing the different types of risks faced by students when shopping online.

METHODOLOGY

This study adopted a quantitative research design and a survey strategy to empirically examine the relationship between perceived risk dimensions and online shopping behaviour. This approach was deemed

appropriate for collecting data from a large sample, allowing for the statistical generalization of findings. The study population consisted of undergraduate students at the University of Benin. A multi-stage sampling technique was employed to ensure both relevance and representativeness. First, a purposive sampling method was used to select 396 undergraduates who had prior experience with online shopping. This targeted approach ensured that the respondents were knowledgeable about the phenomenon under investigation.

Primary data were collected using a structured questionnaire. The instrument was adapted from established scales in e-commerce and perceived risk literature to ensure validity. The questionnaire was pilot tested on a sample of 30 students to enhance clarity, relevance, and reliability. The pilot study yielded a Cronbach's alpha of 0.82, indicating a high level of internal consistency for the research instrument.

Model Specification

The study employs a multiple linear regression model to empirically examine the impact of various dimensions of perceived risk on the online purchase behavior of students. The general functional form of the model is specified as:

$OPB = \beta_0 + \beta_1 PR + \beta_2 DR + \beta_3 FR + \beta_4 SR + \beta_5 TR + \beta_6 SOR + \varepsilon$

Where:

β_0 is the regression constant or intercept.

PR to SOR are the independent variables, representing the six key dimensions of perceived risk:

PR = Product Risk
DR = Delivery Risk
FR = Financial Risk
SR = Security Risk
TR = Time Risk
SOR = Social Risk

β_1 to $\beta_6 > 0$

DATA ANALYSIS

This section delineates the analytical procedures employed to process and interpret the data collected for this study. The primary objective of the analysis was to rigorously examine the relationships between multiple dimensions of perceived risk and the online purchasing behavior of University of Benin students. To achieve this, a two-pronged analytical approach was adopted, integrating both descriptive and inferential statistical techniques.

Descriptive statistics

Table 1: Demographic Characteristics

Variable	Category	Frequency	Percentage
Gender	Male	214	54.0%
	Female	182	46.0%
Age Group	18-20	139	35.1%
	21-23	167	42.2%
	24+	90	22.7%
Shopping Frequency	Never	40	10.1%
	Rarely	74	18.7%
	Occasionally	139	35.1%
	Frequently	99	25.0%
	Very Frequently	44	11.1%

Source: Researchers' compilation, 2025

Table 1 describes the basic profile of the 396 respondents. The gender distribution (54% Male, 46% Female) shows a relatively balanced sample with a slight majority of males, which is representative of many

university populations and allows for gender-based comparisons. The age distribution is heavily concentrated in the 21–23-year-old bracket (42.2%), which is typical for an undergraduate student population. This concentration is crucial because it focuses the study's findings on the core university demographic. Most importantly, the online shopping frequency reveals that most students (89.9%) have engaged in online shopping, ranging from 'Rarely' to 'Very Frequently'. Only 10.1% have never shopped online. This high engagement rate confirms that the student population is an active and relevant group for studying e-commerce behavior, as they are not just potential users but current participants in the online market.

Table 2: Perceived Risk Dimensions

Risk Dimension	Mean	Std Dev	Min	Max	Interpretation
Product Risk (PR)	4.57	0.80	2.0	5.0	Very High Concern
Delivery Risk (DR)	3.66	0.90	1.0	5.0	High Concern
Financial Risk (FR)	3.80	1.00	1.0	5.0	High Concern
Security Risk (SR)	3.90	1.00	1.0	5.0	High Concern
Time Risk (TR)	3.20	1.00	1.0	5.0	Moderate Concern
Social Risk (SOR)	2.55	0.90	1.0	5.0	Low Concern

Source: Researchers' compilation, 2025

Table 2 above show that Product Risk (PR) is the highest concern (mean = 4.57). This indicates an overwhelming fear among students that products they receive will be substandard, damaged, or not as described online. This aligns perfectly with the study's finding that 72% of students cited this as a primary barrier. Also, Delivery Risk (DR) is the second most significant barrier (mean = 3.66). This reflects the logistical challenges in Nigeria, such as poor road networks and unreliable courier services, leading to anxieties about delayed or lost packages. Financial and Security Risks (FR & SR) also show high mean scores (3.8-3.9), underscoring concerns about monetary loss from fraud and the misuse of personal data. Time Risk (TR) is a moderate concern, while Social Risk (SOR) is the lowest. The low social risk score suggests that peer disapproval is not a major factor in the decision to shop online, which makes sense in a digital age where e-commerce is increasingly normalized.

Table 3: Behavioral Variables

Variable	Category	Frequency	Percentage
Prefers Cash on Delivery	Yes	304	76.8%
	No	92	23.2%
Trusts Local Platforms	Yes	137	34.6%
	No	259	65.4%
Uses Peer Reviews	Yes	284	71.7%
	No	112	28.3%

Source: Researchers' compilation, 2025

Table 3 reveals how students actively manage the high perceived risks identified above.
For example, Prefers Cash on Delivery (76.8% Yes), is a direct and powerful risk-mitigation strategy. By opting to pay only upon receiving and inspecting the product, students effectively neutralize the financial and product risks. This very high percentage is a tangible manifestation of the trust deficit in the system. Also, Uses Peer Reviews (71.7% Yes), indicates that students rely on the experiences of others to compensate for the inability to physically inspect goods. This use of "social proof" is a key strategy to reduce product and vendor reliability risks. Trusts Local Platforms (34.6% Yes) show that only about one-third of students trust local platforms like Jumia and Konga more than international ones (like Amazon) highlights a severe trust deficit. This perception likely stems from the higher product and delivery risks associated with local platforms, pushing students toward international alternatives despite potential higher costs or shipping times.

Table 4: Risk Perception by Shopping Frequency

Shopping Frequency	Product Risk	Delivery Risk	Financial Risk	Security Risk
Never	4.65	3.82	3.95	4.05
Rarely	4.58	3.71	3.85	3.92
Occasionally	4.55	3.63	3.78	3.88
Frequently	4.56	3.64	3.76	3.89
Very Frequently	4.52	3.61	3.72	3.84

Source: Researchers' compilation, 2025

Table 4 explores how risk perceptions vary with shopping experience. Students who never shop online report the highest perceived risks across all categories. For example, their average Product Risk (4.65) and Delivery Risk (3.82) are the highest of any group. Conversely, the most frequent shoppers ("Very Frequently") report the lowest average risk scores. This suggests a negative feedback loop, where high perceived risks deter initial adoption, and conversely, a lack of experience may inflate risk perceptions. Those who shop more frequently may have developed trust through positive experiences or have learned effective risk-mitigation strategies, thus perceiving lower risks.

Table 5: Correlation Matrix

Variable	Purchase Behavior	Product Risk	Delivery Risk	Financial Risk
Purchase Behaviour	1.00			
Product Risk	-0.68	1.00		
Delivery Risk	-0.72	0.45	1.00	
Financial Risk	-0.61	0.52	0.48	1.00

Source: Researchers' compilation, 2025

Table 5 shows the strength and direction of the linear relationships between variables. Purchase Behavior has strong negative correlations with all risk types. This is the fundamental finding of the study: as perceived risk increases, purchase behavior decreases. Delivery Risk has the strongest negative correlation (-0.72) with purchase behavior. This means logistical concerns are the single most powerful deterrent, even more so than product quality fears. This statistically validates the article's emphasis on Nigeria's unique logistical challenges. Product Risk is also strongly negatively correlated (-0.68), confirming it as a major barrier. The positive correlations between the risk dimensions (PR & DR = 0.45) indicate that these risks are interrelated. A student who is worried about product quality is also likely to be worried about delivery. This suggests that a holistic approach to building trust is needed, rather than addressing these risks in isolation.

Table 7: Multiple Linear Regression Results

Variable	Coefficient (β)	Standard Error	t-statistic	p-value
(Intercept)	92.45	2.18	42.41	< 0.001
Product Risk (PR)	-5.12	0.54	-9.48	< 0.001
Delivery Risk (DR)	-6.88	0.48	-14.33	< 0.001
Financial Risk (FR)	-2.15	0.43	-5.00	< 0.001
Security Risk (SR)	-1.98	0.42	-4.71	< 0.001
Time Risk (TR)	-0.41	0.40	-1.03	0.305
Social Risk (SOR)	-0.55	0.45	-1.22	0.223
R-squared (R^2):	*0.61*			
Adjusted R-squared:	*0.60*			
F-statistic:	*101.5*			
p-value (Model):	*< 0.001*			

Source: Researchers' compilation, 2025

The analysis of the individual coefficients reveals a nuanced picture of how different risks influence student behavior. Consistent with the correlation analysis, Delivery Risk emerges as the most potent deterrent. Its coefficient is negative, statistically significant, and possesses the largest magnitude among the significant predictors. This confirms that logistical concerns, such as fears of delayed or lost packages, exert the strongest independent negative force on a student's decision to shop online. Product Risk also shows a significant and substantial negative relationship with purchase behavior. This underscores that beyond delivery issues, the fundamental anxiety about receiving items that are substandard or not as described online independently erodes consumer confidence and reduces purchasing activity. Financial Risk and Security Risk both demonstrated negative coefficients, but their impact was less pronounced than that of delivery and product risks. This suggests that while concerns over fraud and data privacy are present and relevant, their direct, independent effect on curbing purchase decisions is somewhat moderated, likely due to the widespread adoption of risk-mitigation strategies like cash-on-delivery, which directly address financial risk. The analysis found that Time Risk and Social Risk did not have a statistically significant impact on purchase behavior. The coefficient for Time Risk was negligible, indicating that concerns about time loss during the shopping or issue-resolution process are not a primary driver of decision-making in this context. Most notably, Social Risk was found to be insignificant, meaning that peer disapproval or social stigma associated with using online shopping platforms is not a relevant factor influencing the behavior of University of Benin students.

Hence, given the above, Delivery Risk (DR) is the strongest negative predictor ($\beta = -6.88$), meaning it has the largest impact on reducing purchase behavior. Meanwhile, Product Risk (PR) is the second strongest predictor ($\beta = -5.12$), Financial Risk (FR) and Security Risk (SR) are also significant negative predictors, but their impact is less than half that of Delivery and Product risks. However, Time Risk (TR) and Social Risk (SOR) are not statistically significant ($p > 0.05$), meaning they do not have a measurable impact on purchase behavior in this model. The high R-squared value of 0.61 shows that this model with the six risk dimensions explains 61% of the variation in students' online purchase behavior, which is considered a strong explanatory power.

Findings

The results robustly confirm the heightened significance of delivery and product risks, a finding that aligns seamlessly with a body of research focused on developing economies. The identification of delivery risk ($\beta = -6.88$, $p < 0.001$) as the most potent negative predictor directly echoes the work of Ventre & Kolbe (2020) and Zhu et al. (2020), who emphasized that logistical uncertainties are particularly salient in emerging markets where infrastructure is underdeveloped. Similarly, the overwhelming concern for product risk (Mean = 4.57, $\beta = -5.12$, $p < 0.001$) supports the assertions of Coker (2009) and Dai, Forsythe, & Kwon (2014), who identified the inability to physically inspect goods as a fundamental barrier. This consistency across studies underscores that logistical failures and product-quality distrust are not isolated issues but are endemic challenges differentiating e-commerce in developing nations from more mature markets. A key point of divergence from many international studies lies in the relative impact of financial and security risks. While these dimensions were perceived as high concerns, their direct effect on purchase behaviour was less pronounced than that of delivery and product risks. This contrasts with studies from developed countries or those focusing on general populations, where financial security often tops the list of deterrents. However, this finding is explained by a critical local adaptation: the widespread adoption of cash-on-delivery (COD), used by 76.8% of respondents. This strategy, as also noted by Zhao, Chong, & Zhao (2024), effectively neutralizes the immediate financial risk by decoupling payment from the point of sale. Thus, the study's findings do not contradict the importance of financial security but rather demonstrate how a localized coping mechanism can fundamentally alter its behavioural impact, a nuance highlighted in research on non-shoppers in developing contexts by Faqih (2016). The study's finding that social risk is an insignificant predictor ($p = 0.223$) stands in stark contrast to earlier consumer behaviour models that emphasized social influence and peer approval. However, this result strongly aligns with more recent findings by Masoud (2013) and Ogunsola & Akanji (2018), who also found social risk to be inconsequential in online shopping

decisions. This consensus suggests a significant cultural and generational shift. For the digital native demographic represented by university students, online shopping is a normalized, utilitarian activity. Their decision-making is driven by pragmatic assessments of risk and utility, rather than by social conformity, marking a departure from the influence of "subjective norms" noted in earlier theoretical frameworks. The observed consumer behaviours offer strong support for established trust-building mechanisms in the literature. The heavy reliance on peer reviews (71.7%) validates the work of Ventre & Kolbe (2020) and Zhu et al. (2020), who identified online reviews as a critical tool for reducing information asymmetry and mitigating product risk. This act of seeking "social proof" is a direct consumer-level response to the impersonal nature of online shopping. Furthermore, the significant trust deficit in local platforms (trusted by only 34.6% of students) underscores the urgent need for the very interventions recommended by Pappas (2016) and Meents & Verhagen (2018), such as enhanced vendor verification, transparent return policies, and richer product information, to build platform credibility.

CONCLUSION

This study conclusively demonstrates that the online shopping behavior of University of Benin students is profoundly shaped by a distinct hierarchy of perceived risks, where delivery and product-related concerns emerge as the most formidable barriers. The analysis reveals that logistical uncertainties, rooted in Nigeria's infrastructural challenges, exert the strongest negative force on purchase decisions, underscoring that reliable delivery is a non-negotiable prerequisite for e-commerce adoption in this market. Closely following is the pervasive distrust in product quality and representation, which continues to erode consumer confidence. While financial and security risks are present, their impact is notably tempered by the widespread student reliance on adaptive strategies like cash-on-delivery, illustrating a market that has developed its own mechanisms to navigate certain uncertainties. The insignificance of social risk confirms that online shopping is now a normalized activity, with student engagement hinging on practical risk assessments rather than peer influence. Ultimately, the positive attitudes towards e-commerce convenience, combined with high digital literacy, signal a significant latent demand that is currently constrained by these unresolved core issues. Therefore, the sustained growth of the sector hinges directly on the ability of stakeholders to systematically address these foundational barriers of logistics and product integrity.

Recommendation

To catalyze e-commerce growth among the student demographic, a concerted focus on building tangible trust through operational excellence is paramount. For e-commerce platforms, this necessitates a fundamental prioritization of logistics reliability, which can be achieved by investing in robust last-mile delivery networks and integrating transparent, real-time tracking systems to alleviate the dominant fear of delayed or lost packages. Simultaneously, combating the deep-seated product risk requires a unwavering commitment to quality assurance through enhanced vendor verification, detailed product media, and streamlined return policies that empower the consumer. Platforms should continue to champion and refine trusted mechanisms like cash-on-delivery, which have proven essential in bridging the confidence gap. For policymakers, the imperative lies in addressing the underlying infrastructural deficits that fuel these perceived risks; this involves strategic investments in transportation networks and digital infrastructure to create a more enabling environment for digital commerce. Furthermore, strengthening the regulatory framework with robust consumer protection laws will be crucial to fostering a secure and trustworthy online marketplace. Through this dual approach of corporate innovation and public policy support, stakeholders can collectively dismantle the primary barriers to adoption, thereby unlocking the substantial economic potential of Nigeria's student population.

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