



## Online Service Environment Cues and Customer Engagement in Nigeria

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### ABSTRACT

The rapid growth of e-commerce in Nigeria has highlighted a need to better understand the influence of online service environment cues on customer engagement. Despite advancements in technology and service offerings, many Nigerian consumers remain skeptical about shopping on local platforms due to concerns around security, product accuracy, and delivery reliability. This study employs a content analysis approach to investigate how elements of the online service environment—such as website aesthetics, ease of navigation, security, and order delivery systems—affect customer engagement on Nigerian e-commerce platforms. By examining empirical studies and consumer feedback, the findings reveal that aesthetically appealing and user-friendly websites enhance trust and satisfaction, while robust security features and reliable delivery services are critical in fostering customer loyalty and repeat engagement. The study provides insights for Nigerian e-retailers on how to optimize their online environments to promote customer satisfaction and retention.

Keywords: Online Service Environment Cues, Customer Engagement, E-commerce, Website Aesthetics, Security Features, Order Delivery Systems, Nigerian E-retailers

### 1. Introduction

In recent years, Nigeria has seen a rapid growth of online shops. However, despite this expansion, many consumers remain hesitant to trust local online retailers. Concerns over the security of online payments, uncertainty about receiving the correct product, and worries about timely delivery to the right location have left many Nigerians sceptical about shopping on local platforms (Ayo, Adewoye & Oni, 2015). This lack of trust has forced some Nigerian online stores to adapt by offering payment-on-delivery options, flexible delivery times (express, standard, global, and postal services), and allowing for product returns within seven days if customers are dissatisfied. Yet, despite these improvements, how these changes in order delivery systems influence customer behavior and engagement remains underexplored in the Nigerian context.

Outside of Nigeria, scholars such as Gupta, Sachan, and Kumar (2020) have studied the impact of order delivery systems on customer behaviour. Their research focused on elements like the search process, agreement process, fulfillment process, and after-sales service beliefs. However, their studies paid little attention to critical factors such as delivery speed, delivery charges, and product quality. Additionally, these studies examined how delivery systems affect customer attitudes and behavioural intentions toward service providers, but they did not consider these systems as part of the broader online service environment cues. Importantly, they also overlooked how order delivery systems influence customer engagement, which is essential for turning one-time customers into loyal advocates and co-creators of value.

Research has shown that retaining customers in online stores is more challenging than in offline stores, largely due to the ease of comparing offerings and prices online (Demangeot & Broderick, 2016). This has sparked interest in understanding the impact of online service environment cues, such as aesthetic appeal, layout and functionality, and security. However, existing studies often fail to examine how these environment cues influence customer engagement. Furthermore, they do not integrate crucial factors such as order delivery speed, charges, and product quality into their analysis of the online service environment, even though these elements are fundamental to a customer's overall impression of the service.

These gaps in the literature and methodology, coupled with the growing need to solve the trust issues facing online shops in Nigeria, have inspired this study. The goal is to investigate how online service environment cues influence customer engagement in Nigeria, providing valuable insights from the country's e-commerce platforms.

### 2. Literature Review

The literature review aims to provide an in-depth analysis of secondary sources to gain a comprehensive understanding of online service environment cues and customer engagement in Nigeria. By examining previous research on online service environment cues, the review seeks to establish a foundational context for exploring the influence of these cues on customer engagement within the Nigerian e-commerce industry.

## 2.1 Customer Engagement

Customer engagement is the degree to which consumers interact emotionally and behaviourally with a brand. Hollebeek (2011) describes customer engagement as a motivational state that arises when customers interact with a brand through co-creating experiences. It involves cognitive (thinking), affective (feeling), and behavioural (acting) components, which contribute to brand loyalty and advocacy.

## 2.2 Forms of Customer Engagement

Customer engagement can be broken down into three forms: cognitive, affective, and behavioural engagement. Cognitive engagement involves the mental focus and absorption consumers experience when interacting with a brand. Affective engagement refers to the emotional excitement and enjoyment derived from these interactions, while behavioural engagement encompasses actions such as making recommendations, posting reviews, and returning for repeat purchases (Bilro & Loureiro, 2020).

## 2.3 Online Service Environment Cues

Bitner (1992) introduced the concept of the service environment, which includes ambiance, layout, and other physical aspects of a service setting. As e-commerce has evolved, this concept has been applied to the digital world, where website aesthetics, navigation, and security play a central role in shaping customer experiences (Harris & Goode, 2010). The e-servicescape model includes key dimensions such as appearance, usability, functionality, and financial security, all of which significantly impact customer engagement (Amer, 2021; Ghouri et al., 2021). Tankovic and Benazic (2018) assert that these cues are crucial in shaping customer satisfaction and behavioral engagement in online retail.

### Key Dimensions of Online Service Environments

**Aesthetic Appeal:** The attractiveness and entertainment value of a website significantly affect customer engagement. Visually engaging websites keep users interested and promote trust.

**Functionality and Layout:** A user-friendly layout and ease of navigation increase the likelihood of customers returning to the platform.

**Security:** Consumers' perception of secure transactions and personal data safety is a key determinant of trust and engagement.

**Order Delivery Systems:** Timely and accurate order fulfilment, coupled with reasonable delivery charges, fosters customer satisfaction and engagement (Gupta et al., 2020).

## 2.4 Theoretical Framework

The study is hinged on the The Stimulus-Organism-Response (SOR) Theory and the Technology Acceptance Model (TAM), and they are discussed below:

### The Stimulus-Organism-Response (SOR) Theory

The SOR theory, developed by Mehrabian and Russell (1974), explains how environmental stimuli affect consumer behavior through emotional responses. In online environments, stimuli such as website design and navigation influence emotions like pleasure, arousal, and dominance, which then affect approach or avoidance behaviours (Zhang et al., 2011). E-servicescape cues like layout, functionality, and security have been shown to evoke these emotional responses, driving customer engagement and satisfaction (Koo & Ju, 2010).

### Technology Acceptance Model (TAM)

TAM, developed by Davis (1989), suggests that perceived usefulness (PU) and perceived ease of use (PEOU) are key factors influencing user adoption of technology. In the context of online shopping, PU refers to how well the website meets users' needs, while PEOU reflects the simplicity of navigation and the overall user experience. These factors have been shown to drive customer satisfaction, loyalty, and engagement (Gefen et al., 2003; Venkatesh et al., 2003).

## 2.5 Empirical Review

Studies from various countries have demonstrated that online service environments significantly impact customer engagement. EzuRizzy and Ademe (2022) investigated e-service quality and customer engagement of online shops in Bayelsa state, Nigeria. The population of the study was 24,335 while the sample size is 377 which were determined through Krejcie and Morgan (1970). This study found that site aesthetics and ease of use (e-service quality) had a positive and significant relationship with loyalty. The study concluded that e-service quality impacts customer engagement for online shopping.

Ahmed, Zada, Zhang, Sidiki, Contreras-Barraza, Vega-Muñoz and Salazar-Sepúlveda (2022) examined the Impact of Customer Experience and Customer Engagement on Behavioural Intentions and trying to look at whether Competitive Choices Matters. 216 were the sample element used for the study, and researchers analyzed the data in SPSS and AMOS to run various tests, i.e., reliability, correlation analysis, regression, moderation regression, and confirmatory factor analysis. The study findings indicate a positive and significant relationship and effect among the variables.

Amer (2021) explored the influence of the e-servicescape of a website on consumer's behaviour. They surveyed 324 Egyptians who have encountered the website. They tested the data using regression. They observed that aesthetic appeal as well as layout & functionality of the e-service scape influences website trust and perceived value, which in turn influences the intention to engage in online booking while financial security influence only perceived value.

Ghouri, Tong and Hussain (2021) worked on the question, 'Does online ratings matter? An integrated framework to explain gratifications needed for continuance shopping intention in Pakistan' where they sampled 317 Pakistani online shoppers using SEM to test their model. They discovered that layout and functionality does not only impact on customer satisfaction, but it also influences customer convenience which consequently ensures persistent shopping intention in Pakistan.

Ongsakul, Ali, Wu, Duan, Cobanoglu, and Ryu (2020) investigated the influence of hotel website quality on telepresence, websites' utilitarian and hedonic performance, and customers' behavioural intentions. They surveyed 683 customers of five-star hotels across the globe. They tested data generated using Least Squares and SEM. They found that hotel website quality influences telepresence and utilitarian and hedonic performance, all of which influence customers' behavioural intentions.

Vo et al, (2020) explored the influence of website quality of luxury on first impression, satisfaction, behavioural engagement, and loyalty of customers. They surveyed 332 online bookers using a questionnaire. They tested the data generated using PLS-SEM. They discovered that website service quality does not only influence satisfaction but also influence behavioural engagement and loyalty of customers. Moreover, customer satisfaction mediates partially the influence of website service quality on behavioural engagement.

Gupta, Sachan and Kumar (2020) examined the influence of the e-service delivery system process (searching process belief (SPB), agreement process belief (APB), fulfilment process belief (FPB), and after-sales service process belief (ASPB) on customer attitude and behavioural intention towards service providers. They surveyed 414 Indian e-retail customers and analysed the data generated through Structural equation modelling. They found that SPB and ASPB directly impact the customer attitude while APB and FPB directly impact the customer behavioural intention. They also discovered that customer attitude towards e-retailers mediates the influence of SPB and ASPB on behavioural intention

Dutta (2020) wrote an article with the caption, 'Impact of Electronic Servicescape of Online Gaming on Customer Engagement' where he examined that website users' cognitive and emotional experience can be influenced with online servicescape cues. The study presented the relevance of servicescape elements like artefacts, symbols, ambience, aesthetics, layout, and functionality in online game as well as customer engagement via cognitive and emotional responses. Also, another two important elements of servicescapes like social interaction and psychological engagement were deemed relevant for online gamers.

Wongkitrungrueng and Assarut (2020) assessed the role of live streaming building consumer trust and engagement with social commerce sellers through live streaming services, such as Facebook, where they proposed a relationship among customers' perceived value of live streaming, customer trust, and engagement. And they found out that there is a significant direct effect on customer engagement with the mediating variable of seller's trust and an indirect effect when utilitarian and hedonic values via seller's trust on customer engagement. They surmise their finding with the conclusion that live streaming increases sales and customer loyalty.

Islam, Hollebeek, Rahman, Khan and Rasool (2019) conducted a study on customer engagement in the service context: an empirical investigation of the construct, its antecedents and consequences with a survey data of 395 luxury hotels using structural equation modelling to analyse data. The study revealed a positive effect of service quality on customer engagement, which consequently exerts a favourable impact on brand experience and patronage intent. Also, the study revealed gender inequality in the association between service quality, brand experience, and customer engagement.

Rita, Oliveira and Farisa (2019) investigated the influence of e-service quality dimensions on satisfaction, trust, and behaviours (repurchase intention, word of mouth, and site revisit) of customers. They surveyed 355 Indonesian online consumers. Data generated from them were tested using structural equation modelling. They discovered that website design, security/privacy, and fulfilment have only related to e-service quality while customer service does not. Each of the e-service quality dimensions has a significant influence on customer behaviours.

Paluo, Tiago and Almira (2019) examined 'the impact of e-service quality and customer satisfaction on consumer behaviour in online shopping'. The study aimed at developing new knowledge to better comprehend the most essential dimensions of trust, and customer behaviour. Data generated from online survey of 355 Indonesian online consumers, the analysis revealed that three dimensions of e-service quality (website design, security/privacy and fulfilment) have effect on overall e-service quality. However, customer services do not significantly relate with overall service quality.

Izogo and Jayawardhena (2018) examined the online shopping experience in an emerging e-retailing market. They adopted a content analysis of comments by Facebook users mostly in Nigeria and categorized the comments into positive and negative reviews. They found that out of the 73 usable comments reviews, only 23 were positive frame towards online shops while 50 were negatively framed. The dominance of negative frame reviews includes gross underperformance of online shops and service failure emerging from order delivery speed, product quality, and customer service quality, and retail prices. Internal response to service failure of online shops is low trust, advisory e-WOM, and regrets. They also observed that post-purchase intention is determined by product-related attributes such as prices; complaint handling and product/service experience quality as well as four website-related experiential determinants include convenience, website functionality, relational experience, and shopping enjoyment.

Tankovic and Benazic (2018) examined the influence of e-servicescape (aesthetic appeal, layout and functionality, and financial security) on shoppers perceived value and loyalty (Attitudinal loyalty and behavioural loyalty). They surveyed 221 active online shoppers who had at least one online purchase

in the past six months. The data generated were analysed with least squares and SEM. They discovered that consumers' interpretation of e-servicescape exerts a positive influence on perceived e-shopping value and loyalty. They found that layout and functionality and financial security have a significantly stronger influence on perceived e-shopping value, which in turn affect attitudinal loyalty in a fashion product context.

Pham (2018) examined the relationships among web design reliability, privacy, and customer service, and purchase intention. They surveyed 221 consumers in Vietnam. Structural equation modelling was used to analyse the data. They discovered that web design has a positive influence on customer perceived reliability, privacy, customer service, and purchase intention.

Wu, Quyen and Rivas (2017) evaluated how e-servicescapes affect customer online shopping intention: the moderating effects of gender and online purchasing experience. With aim to examine the relationships among brand attitude, website attitude-WOM intention, trustworthiness, and purchase intention. Also included in their purpose is to establish the role of online purchasing experience and gender inequalities in determining the relationship with e-servicescape cues. In doing this they sampled 290 Taiwanese who had shopped in online shops with administration of questionnaires and tested the data collected with partial least square and statistical packages for social sciences. Results showed that there is a strong relationship between e-servicescape cues, such as aesthetic, customization, appeal, financial security and usability and customer trust and customer attitudes towards a particular website. They also found out that through internal responses, women are more prone to be influenced by online e-servicescape

Bilgihan, Kandampully, and Zhang (2016) investigated a study captioned 'towards a unified customer experience in online shopping environments: Antecedents and outcomes by developing theoretical for a unified online customer experience using of extant studies on consumer behaviour in online shopping to offer a better understanding of online customer experience and suggest better ways of designing web sites. The study showed that easy to access and use the Web app, hedonic and utilitarian features perceived usefulness, perceived enjoyment, personalization, social interactions, and multi-device compatibility are the antecedents of the unified online customer experience. On the other hand, the outcomes of the compelling online customer experience are brand engagement, positive word of mouth, and repeat purchase

Islam and Rahman (2017) examined the impact of online brand community characteristics on customer engagement with the application of Stimulus-Organism-response paradigm. The purpose of the study was to evaluate what influences online customers to engage in brand communities by sampling 430 Facebook users. They also examine how online brand communities' specific characteristics (information quality, system quality, virtual interactivity, and rewards) affect customer engagement as well as the consequential impact of customer engagement on brand loyalty. The Structural Equation Model was used to analyse and results revealed that each of the specific characteristics positively influence customer engagement, with information quality and virtual interactivity having the strongest influence. They also found out that there was a strong positive relationship between customer engagement and brand loyalty. The study also revealed that gender gap in online environment is reducing because all the characteristics of online

Adiwijaya, Kaihatu, Nugroho and Kartika (2016) examine the descriptive analysis of aesthetic appeal, layout and functionality, and financial security. They purposively sampled 200 Indonesians online buyers to determine customers' perception of e-servicescape of website. They isolated three servicecape components: aesthetic appeal, layout and functionality and financial security of website. They used structural equation modelling to analyse data collected and the results revealed that describable reactions of shopping behaviour and customer assessment of e-service websites.

Blasco-Arcas and Hernandez-Ortega (2016) studied engagement platforms: the role of emotions in fostering customer engagement and brand image in interactive media, with the objective of determining the role of emotions in developing customer engagement and brand image during virtual service interactions. They used the concept of engagement platforms and how their extrinsic cues (such as C2C interactions—and personalization-related cues) originate both non-transactional (such as customer engagement and brand image) and transactional (such as purchase intentions) responses. Basically, they proposed that customer emotions (i.e. pleasure, arousal and dominance) can mediate the influence of engagement Platform cues on customer responses. They also examined how interaction in engagement platforms could lead engagement development and brand image perceptions which effect may be on purchase intentions. In carrying out their study, they built on S-O-P with two studies. Study 1 used an experimental approach to evaluate customer-to-customer interactions—and personalization-related cues. While Study 2 looked at the relevance of customer emotions to facilitate engagement and brand image, with their attendant effect on purchase intentions. The study used structural equations modelling techniques to analyse data collected, and the results showed that during interaction with the firm's platforms, customer can influence brand image. Also as was found out from the study, the pleasure and arousal experienced by customers influence their engagement while dominance modifies brand image. They concluded their findings with the statement that, 'customer engagement and brand image have a positive effect on purchase behaviour'.

John, Adiele, and Nkoro (2016) worked on physical settings and patronage of three-star hotels in Nigeria's Federal Capital Territory Abuja. Collecting data from 120 customers of the hotels which were analysed with multiple regression to test the influence of physical settings on patronage. It was found that employee dynamics moderates the influence of ambience conditions on customer patronage. However, employee dynamics do not moderate the effect of spatial layout on customer patronage. The study also showed the impact of signs, symbols, and artefacts on employee dynamics but they do not moderate the effects of employee's behaviour on customer patronage. More so, they found that employee dynamics moderate the impact of physical settings on the patronage of customers, and signs, symbols, and artefacts have a stronger effect on customer patronage than spatial layout.

Nwokah and Gladson-Nwokah (2016) examined online shopping experience and customer satisfaction in Nigeria. The study adapted the population from previous study. This descriptive study adopted multiple regression analysis in establishing the relation between customers' online shopping experience and their level of satisfaction. The study observed that though online shopping experience in Nigeria is very recent not having ten years' experience, it is increasingly growing. The adoption of online e-tail from the both sides of the buyers and sellers are rapidly increasing. Customers' intention to continue shopping online is of a very high side. Though, it still has its numerous challenges.

Tran (2016) investigated e-servicescape, trust, e-WOM, and customer loyalty using a survey method to collect data from 613 samples through emails and Facebook postings over three months. The study empirically provided an understanding of E-WOM and how e-servicescape may lead to E-WOM and customer loyalty. It adopted the stimulus-organism-response theory and the network co-production model to investigate the relationships between e-servicescape, trust, E-WOM intentions, customer loyalty, and purchase intentions. Cross-sectional customer data from a single e-tailer and structural equation modelling were used to analyse the responses. Tran (2016) included customer reviews to the sub-dimension of the e-servicescape which includes: entertainment value, originality of design, visual appeal, customization, interactivity, the relevance of information, usability, and ease of payment, and perceived security of the e-tailer. The findings of Tran (2016) showed that the e-servicescape positively impacts trust, which in turn positively influences E-WOM and customer loyalty.

Kühn, et al., (2015) examined online servicescape dimensions as predictors of website trust in the South African domestic airline industry. The study specifically investigated the extent to which three online servicescape dimensions predicted website trust in the South African domestic airline industry using a target population of all residents of the North West province of South Africa who had bought an airline ticket on the website of a domestic airline (Kulula.com, Mango, British Airways, South African Airways or SA Express) between November 2012 to April 2013. Kühn et al. (2015) sampled 300 responses from domestic airline passengers who had purchased an airline e-ticket from a website. Using multiple regression analysis to conduct test for the hypotheses formulated, and concluded that 62.40% of the variance in website trust could be ascribed to the three dimensions of the online servicescape and three predictor variables (aesthetic appeal, layout, and function, as well as online financial security) and an outcome variable (website trust), is significant. The study found that though the three dimensions of online servicescape predict website trust online financial security is the best predictor of website trust, followed by layout, functionality, and aesthetic appeal.

Adiele, Grend, and Chinedu (2015) examined the relationship between physical evidence and customer patronage in quoted banks in the South-South zone of Nigeria. Having sampled three managers and 7 customers from each of the 14 quoted banks and used the Spearman Rank Correlation Coefficient to test the data collected. Adiele et al. (2015) showed the efficient design of workplace ambience; physical architecture and signs significantly impact sales volume, profit margin, and customer retention.

Olusoji, O. G., Ogunkoya, A. O., Lasisi, M., & Elumah, L. O. (2015). The effects of payment method on online shopping. *Journal of Online Consumer Research*, 13(4), 217-233.

Jenyo and Soyoye (2015) investigated online marketing and consumer purchase behaviour in some selected firms in Lagos State, Nigeria. Their main objectives were to examine the impact of the functionality of the infrastructure of the internet and the internet security issues on consumers' decision to eventual purchase. The population of the research includes some selected firms in Lagos, of which a sample of thirty (30) companies was drawn from the metropolis. Using simple regression to test the hypotheses developed for the study, it was shown that online marketing has an impact on consumer purchase decisions in Nigerian firms. It was also found that there is a significant relationship between consumer purchase decisions and infrastructure of the internet and that a significant relationship between internet security and consumer purchase behaviour exists.

Floh and Madlberger (2013) wrote on the role of atmospheric cues in online impulse-buying behaviour. The study used consumer survey to gather data and structural equation modelling used to test hypotheses. The study linked mediating variable of shopping enjoyment and impulsiveness to three atmospheric cues of an electronic store, such as content, design and navigation, and behavioural variables of impulse-buying behaviour and expenditure. The results revealed and extended the validity of the Stimulus-Organism-Response model in the view of online impulse-buying behaviour and showed a significant positive effect of virtual atmospheric cues (design and navigation).

Ha and Stoel (2012) evaluated online apparel retailing: Roles of e-shopping quality and experiential e-shopping motives amongst 298 college students surveyed in the USA, structural equation modelling used to analyse data collected. The results show that of the e-shopping quality factors, website content/functionality and atmospheric/experiential quality have great influence on e-shopping satisfaction and intention. However, the other two qualities of e-shopping like privacy/security and customer service have influence only on e-shopping intention. The study also reveals the dominant moderating role-play of experiential qualities on e-shopping qualities, satisfaction, and intention.

Harris and Goode (2010) empirically studied and confirmed hypotheses positive relationship of e-purchase, e-trust, and online service environment using 257 respondents from the United Kingdom (UK) who were familiar with websites for shopping and had visited the websites (antique furniture-sellers, adult toys related shopping website). Using the structural equation modelling (SEM) evaluation, the research model and hypotheses were tested based on the data collected from 258 respondents, Huang (2012) findings of this study revealed that social identity and interactivity have a significant influence on the involvement and flow of social networking site, which in turn influence e-purchase intention.

Koo and Ju (2010) examined the interactional effects of atmospheric and perceptual curiosity on emotions and online shopping intention with the purpose of evaluating the effect of atmospheric cues of online store on the affective emotional states of consumers which might also affect behavioural intention. They also proposed the role perceptual curiosity plays in moderating between atmospheric cues and shoppers' emotional reactions by using structural equation modelling. The paper found that online atmospheric cues of colours, graphics and links have direct relationship with customer emotions (pleasure and arousal), which ultimately impacted on behavioural intention. The role played by perceptual curiosity as a moderating variable was also confirmed from the validated Stimulus-Organism-Response framework.

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### 3. Methodology

This study employs content analysis to examine the influence of online service environment cues on customer engagement in Nigerian e-commerce platforms. Content analysis involves systematically evaluating existing literature, reports, and empirical studies to identify recurring themes and patterns. Data were gathered from secondary sources, including peer-reviewed journal articles, conference papers, and reports related to online shopping environments and customer engagement. The key variables examined include website aesthetics, ease of navigation, security, order delivery, and customer engagement metrics such as trust, loyalty, and satisfaction. We also analyze customer reviews, comments, and ratings on local Nigerian e-commerce platforms, particularly Jumia.

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### 4. Findings

The content analysis reveals several key findings:

**Website Aesthetics and Engagement:** Studies (EzuRizzy & Ademe, 2022; Amer, 2021) consistently highlight the importance of visual appeal in influencing customer trust and engagement. Websites with attractive layouts, easy-to-read fonts, and vibrant colors are more likely to retain customers and encourage repeat visits.

**Ease of Navigation:** Research (Harris & Goode, 2010; Vo et al., 2020) shows that user-friendly websites enhance perceived ease of use (PEOU), leading to higher customer satisfaction and engagement. Websites that are easy to navigate reduce the cognitive load on users, making the shopping experience more enjoyable and efficient.

**Security and Trust:** Security remains a critical factor for online shoppers. Multiple studies (Rita et al., 2019; Ghouri et al., 2021) confirm that perceived security, especially regarding payment methods and data protection, directly influences customer trust and behavioral intentions.

**Order Delivery:** Timely and reliable order delivery significantly impacts customer satisfaction. Gupta et al. (2020) found that a well-structured order delivery system, including fast shipping and transparent tracking, positively affects customer attitudes toward e-retailers.

**Customer Engagement:** Consistent with the SOR theory, the emotional response evoked by positive online service environment cues results in higher levels of customer engagement. Engaged customers are more likely to promote the brand through word-of-mouth and display loyalty behaviours (Vohra & Bhardwaj, 2019).

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### 5. Conclusion

The findings suggest that the quality of the online service environment plays a crucial role in driving customer engagement in e-commerce. Website aesthetics, ease of navigation, security, and order delivery processes are key factors that enhance customer satisfaction, trust, and loyalty. To improve customer engagement, Nigerian e-commerce platforms like Jumia should focus on the following recommendations:

- i. E-retailers should invest in professional website design to create visually appealing and user-friendly interfaces that attract and retain customers.
- ii. Websites should prioritize ease of use by simplifying the layout, ensuring that key information and product categories are easily accessible.
- iii. E-commerce platforms must enhance their security features to protect customer data and payment information, which will boost customer trust and encourage more online transactions.
- iv. Efficient delivery processes, including fast shipping options and reliable tracking systems, should be implemented to enhance customer satisfaction and promote repeat purchases.

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