



THE IMPACT OF WEB SERVICE QUALITY ON CUSTOMERS BUYING BEHAVIOUR

Agulefo, Prosper Chinedum (MA)¹, Prof. Liangjuan Qin (PhD)²

¹ Department of International Business and Cross Border E-commerce, School of Information Technology, University of International Business and Economics, China.

² School of Information Technology and Management, University of International Business and Economics, China

ABSTRACT

The introduction of the internet has caused a transition from more traditional to more digital approaches to conducting business. The sales volume generated by this industry has increased steadily over the past decade as this unique method of conducting business has proven popular. The research used five online stores based in Lagos, Nigeria, to investigate the correlation between web service quality and customers' purchasing behavior. To accomplish the goal of the research, 394 participants were chosen to complete the questionnaire, and 390 responses were obtained. The ANOVA and coefficient values were calculated using linear regression (at a significance level of 0.05). A positive correlation was found between Web service quality and customer loyalty, while results showed no correlation between Web Service Quality and repurchasing. As a result, the study suggests that businesses adopt a more IT-integrated strategy. Doing so will lead to innovation performance and benefit the company in terms of increased customer satisfaction, productivity, and commitment to the brand. The report also suggests that managers who want engaging websites can do so by consulting with a professional web designer, among other options. Given the significance of taking pride in the quality of the service provided, managers must take all necessary precautions to ensure that products arrive on time and in good condition. Managers can negotiate terms with delivery services regarding who is responsible for fixing damaged products.

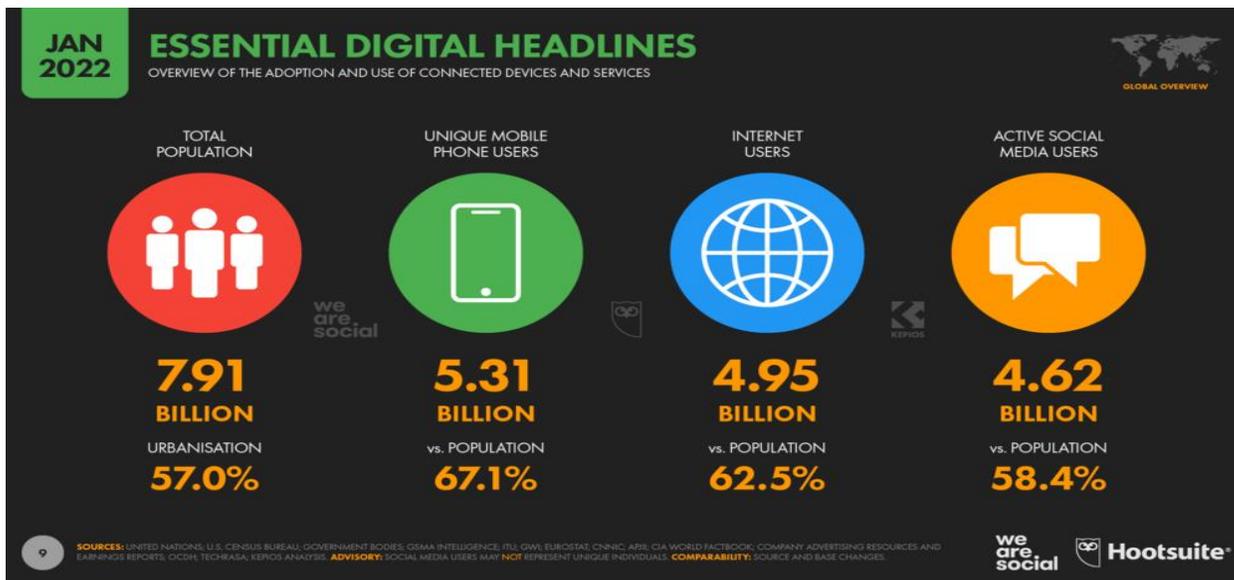
KEYWORDS: *Repurchase intent, customer loyalty, customer satisfaction, and online shopping habits*

INTRODUCTION

Since the introduction of the internet, traditional business methods have given way to their digital counterparts. Over the past decade, this shift has gained popularity and increased the volume of money transacted via the internet (Lee & Clark, 1996). As an advantage, due to the lack of a physical meeting between buyers and sellers, online markets are safe from some forms of fraud (Renjith, 2018). Customers can buy from the convenience of their homes, while merchants save on overhead costs associated with maintaining a physical location

(Jocevski, 2020). Hence, because neither the seller nor the consumer has to meet for the transaction physically, internet buying is preferred over conventional purchasing methods (Klepek & Bauerová, 2020). Many people prefer to shop online because of its many benefits, including convenience, speed, efficiency, and lower overall expenditures for both the retailer and the consumer (Wilson & Christella, 2019). With a global population of 7.91 billion as of

January 2022 and an estimated 4.95 billion internet users, or 62.5 percent of the world's total population (Datareportal, 2022), it is easy to see how the growth of online commerce has led to the decline of traditional businesses (Benjamin, 2022).



Source: Datareportal (2022)

Figure 1: An overview of internet users.

There is a strong possibility that the growing interest in and usage of IT technologies are directly responsible for this booming growth, as they have enabled more simplified payment and delivery processes, which have boosted consumer and seller confidence (Nwankpa, 2022). Thus, the proliferation of smart mobile devices and mobile money facilities is impacting consumer purchasing behavior and the growth of e-commerce by making it easier to access online information about products and make purchases through mobile application platforms (MANSUR et al., 2019). Statistics show that 67.1% of the world's population currently uses a mobile phone, with unique users reaching 5.31 billion at the beginning of 2022 (Datareportal, 2022). It suggests that most shoppers are equipped with a mobile device, prefer shopping online over visiting a store, and are likely to research prices and read reviews before making a purchase decision.

Due to the ease with which new businesses can set up an online store, established companies are vying for customer's loyalty by offering ever-more-modern forms of interaction, such as email and social media (Denga et al., 2022), as online consumers also pose a challenge to retailers since they can readily switch between vendors due to the low barriers to entry in this market (Aw et al., 2021). Hence, the level of satisfaction a shopper has with their online shopping experience correlates with their propensity to return to the store and the quality of the feedback they are willing to give about their experience (Najmi et al., 2022). For this reason, businesses are working on improving their websites' system quality, information quality, and electronic payment quality so they may better compete in the e-commerce market (Javaid et al., 2021).

It is also challenging to fathom the mental states of consumers that utilize internet shopping services (Wu et al., 2020). According to Yang et al. (2003), many traditional retailers are attempting to keep up with the rise of online

competition. Kalia and Paul (2021) asserted that offering superior service through the quality of company's web services is one of the finest methods to differentiate oneself from competitors and earn profits. It is believed that a site's design directly affects how interested its visitors get and, in turn, how many sales are generated (Alzoubi et al., 2022). Therefore, the website should serve as a go-between for sellers and buyers: the former uploads information about the goods or services they wish to sell; the latter visits the website to peruse the content, evaluate it, and make a purchase decision; and the latter can ask questions about a product after reading the description or specifications, using the integrated live chat tool. Hence, companies operating in the digital space must recognize that clients can readily and affordably switch between service providers, so they must hard to win and keep customers loyalty (Saroah & Diwan, 2020). In addition, businesses are making concerted efforts to develop reliable websites that meet customer expectations (Lu et al., 2020), as customer confidence is directly correlated to a company's website quality and long-term performance (Sadeghi et al., 2019).

The primary purpose of the study is to understand how customers' perceptions of a company's website service quality influence their buying behaviors. Consequently, the quality of the given Web service is the independent variable, while the likelihood of repurchasing, being satisfied, and remaining loyal to the brand are the dependent factors. Insight into the problems at hand, proof for or against hypotheses, and new information are all goals of the research.

The study's overarching goal is to contribute to and advance readers understanding of what influences customers' propensity to make purchases through a company's website. Therefore, the researcher dived deep to discover what makes a buyer decide to buy after perusing a product website and how the quality of the web services offered by the online platform influences the decision to buy. Since consumer behavior is the cornerstone of the e-commerce market, this paper could be used as a reference by web designers and developers worldwide engaged in this sector. The study analyzed web service quality when making online purchases using customer satisfaction, customer loyalty, and repurchase intention; as a result, both online sellers can use those metrics as a compass to direct their operations. The study is useful for businesses and sellers alike since it reveals the psychological factors that influence customers' purchasing decisions (Rungsrisawat et al., 2019), which in turn improves a company's performance, client base, earnings, and growth. Online businesses can use this study as a stepping stone to creating a more effective marketing strategy that can serve as a roadmap, offer pointers, and enhance the firm's capacity to make sound choices.

Many aspects of a consumer's status, including their level of education, income, cultural standards, and internet access, influence their purchase propensity. Based on the reviewed literature, it became clear that earlier studies of consumer buying habits had mostly concentrated on consumer demographics and their association with the utilization of online services. Therefore, the purpose of this article is to fill in these blanks by investigating the connection between a company's website quality and consumers buying behavior by considering customers' satisfaction levels, loyalty, and repurchase intention.

1. LITERATURE REVIEW

Website Design Quality and Customer Online Buying Behavior

Aesthetic touches like vibrant color palettes and an intuitive layout contribute to the positive user experience that is so essential to the success of any online service (Zhuang et al., 2021); as a result, a website needs to provide services that are both high-quality and easy to use. Any media, from simple text, photographs, graphics, audio, and video, can be included in web content to boost its aesthetics (Fayzullo et al., 2021). Despite the growing body of literature on methods for attracting more website visitors, it still needs to be widely understood how to turn these casual browsers into committed buyers.

Rosen & Purinton (2004) conducted research that explained the core principles of efficient web design and highlighted the features of popular websites that keep users coming back for more. While he acknowledged the usefulness of features like hyperlinks, navigation bars, and sitemaps—which allow users to move around a website without having to backtrack—he also noted that these aspects are not without drawbacks. As their size and complexity grow, websites need to be built so that visitors use less effort to accomplish the same goals (Fogg, 2009). Hence, websites with a more vivid and interactive interface have been found to have higher levels of user engagement (Li et al., 2022). If the website's pages are frequently updated, visitors will have to re-learn how to get around, which can be less frustrating (Wyatt, 2022). According to Chiang et al. (2022), there is no universal mechanism for resolving theoretical conceptions of online service quality. This is because the quality of the services provided by a website is evaluated differently by different users, groups, and organizations based on factors such as the context of the website, the characteristics of the website, and the development stage of the website (Lazzerini et al., 2022).

Concerns of IT experts and web signers regarding the architecture and design of the web could include adopting the most modern technology to give access points for the site's content, securing users' personal information, and providing a secure platform (Sharma et al., 2020). Hence, numerous researchers have proposed various criteria and parameters for evaluating the quality of digital services. Meyer-Waarden et al. (2020) investigated how customers' expectations for the quality of self-service altered in response to technological developments. The study aimed to uncover the impact of service quality on customer acceptance and usage of chatbots. According to the results, there were five essential features for successful electronic services: promptness, ease of use, reliability, fun, and agency (Dabholkar, 1996). The study concludes that three aspects of service provision—namely, user agency, customer gratification, and usability—contribute to service excellence.

Alrubaiee and Alkaa'ida (2011) asserted that the SERVQUAL model is the most widely used tool for evaluating service quality. The demand for this model is growing, and it is already being used in several research projects. The growth of the Internet as a place of commerce necessitated adjustments to SERVQUAL, which were subsequently adopted by several academics into a wide range of models. Popular custom models include Barnes et al. (2002) WebQual scale for evaluating online retailers of books, music, airline tickets, and hotel reservations and Blut et al. (2015) ultimate hierarchical model of e-service quality.

Gounaris et al. (2010) studied how service quality and satisfaction factors affect customers' recommendations, return visits, and conversion intentions. The study measured E-service quality using a modified version of Barnes and Vidgen's WebQual scale (2002): (usability, information, and interaction). Two new elements were implemented: design and after-sales service, both created by Lee & Lin (2005). For the study, two hundred and forty online surveys were collected from randomly selected consumers. The study's findings showed that customers' contentment, the likelihood of returning to the site, advocacy, and spending more money positively and strongly correlated with the quality of the e-services they received. In another study, 358 U.S. online consumers were used to test the model created by Blut (2016). The study identified website design, customer service, security/privacy, and satisfaction as the four pillars of e-service quality. The study showed that satisfaction and security results indicated a connection between customer service and website design, whether directly or indirectly.

Web Service Quality and customer satisfaction

Typically, customer satisfaction is related to a product's performance relative to clients' expectations with various criteria (Cetin, 2020). When a consumer evaluates his or her satisfaction, he or she is most likely to recall the product's most important characteristics that were displayed (RATHOD & HARITHA, 2022). Consequently, the customer satisfaction coefficient measures whether a product specification is merely preventative or genuinely contributes to the client's total satisfaction (Ali et al., 2021). Kotler and Keller (2012) defined satisfaction is the sensation of pleasure or disappointment from comparing a product's apparent performance (or outcome) to expectations. According to Jahanshahi et al. (2011), CS results from a customer's perception of the value acquired in a transaction, where *value* is defined as "the ratio of how much a product or service is worth to how much it costs to acquire it". On the other hand, Tu et al. (2013) view customer satisfaction as an experience that influences repurchasing intentions and behavior, which, in turn, leads to an organization's future revenue and profits. Therefore, consumers' satisfaction levels are determined by comparing their experiences with a product or service to their expectations before purchasing (Lazirkha et al., 2022). When consumers are pleased with a service or product, it is because it delivers as promised. Further, it only takes one dissatisfied client to persuade others to abandon the ship and go elsewhere.

Kotler and Armstrong (2012) noted that customer loyalty, repurchase interest, complaints, referrals, and brand impressions could measure customer satisfaction. Thus, customer satisfaction is a key predictor of brand loyalty, measured by how unhappy customers are with how a product or service performed relative to their expectations before purchase (Hidayat et al., 2016). It implies that customers are satisfied or dissatisfied when their needs are unmet or exceeded (Brilliant & Achyar, 2021). Customers' satisfaction with a website's ease of use and the presentation of its goods and services in an appealing interface is, thus, the single most essential factor in determining a site's effectiveness and success (Hardiyanto & Firdaus, 2021). Consequently, the customer's behavior before, during, and after the purchase, all contribute to whether or not they are satisfied. According to Solomon et al. (2017), satisfied consumers are less likely to move to a competing product. Therefore, monitoring and evaluating customer satisfaction based on the client's perception of the brand's website quality is essential. According to Jen et al. (2001),

long-term customer satisfaction can predict future behavior by collecting and updating survey data on consumer experiences about the company's web quality following each transaction.

Lin (2007) suggested a method for analyzing whether or not a website's interphase, content, and support meet or exceed users' expectations. The study used structural model to test the stated hypotheses on the relationships between variables and to conduct a confirmatory factor analysis. Results demonstrated a favorable correlation between information quality and customer satisfaction when examining web service quality factors: response time, reliability, empathy, website design, interactivity, and security. Liang & Chen (2009) explored the relationships between website quality, customer satisfaction, trust, and the duration, breadth, and depth of a client's relationship with an online financial service provider. The analysis showed that the quality of a website's quality and operation substantially impacts customer satisfaction. The authors asserted that customers are more likely to be loyal, increase their usage, and refer the company to others if its website provides high-quality information, systems, and services. It was also stated that the market acceptance of a company's products depends on the quality of its web services.

According to Tran & Vu (2019), customers place greater importance on the quality and purchasing experience of online services than on pricing alone; consequently, it is essential to understand their expectations to maximize ways for client attraction, acquisition, and retention. Since it is more difficult for sellers and buyers to establish rapport in an online business, customers place a larger premium on service quality. In a study by Lau et al. (2011) on e-tickets in Malaysian online transactions, the electronic service quality variable was found to have a positive effect on customer satisfaction, and an increase in the perceived quality of e-service was found to correspond with increased customer happiness directly.

Jefri and Mayasari (2023) conducted a study titled "E-commerce service quality, e-customer satisfaction, and loyalty. The study aim was to determine how the quality of a company's online services influence the satisfaction and loyalty of its customers. The quality of e-commerce services was assessed using a modified version of the E-Servqual model, which considered characteristics such as site structure, responsiveness, user-friendliness, reliability, and individual need. One hundred students majoring in business management filled out a questionnaire for the study, which took a quantitative approach. Systematic sampling was employed to determine the sample size, and PLS-SEM analysis was then performed to provide insight into the results. The study findings suggest that response time, dependability, user-friendliness, and individual need are among the most important quality criteria in online business.

Web Service Quality and customer repurchase

An essential factor that defines a business's success is the frequency with which its customers buy from it again (Kim et al., 2020). Accordingly, a measure of a consumer's dedication to a brand is the frequency with which they repeatedly buy products from that brand (Dawes et al., 2020). According to Bernarto et al. (2019), to enhance customer loyalty and repeat business, a company must develop and implement several methods to exceed client expectations (Kunamaneni et al., 2019). Competition keeps increasing as the number of businesses operating in the

online market has grown; as a result, many businesses aim to reduce the high costs of attracting new customers through strategies like discounting for repeat purchases (Rudd et al., 2021).

An individual's repurchase intent reveals whether or not they plan to obtain the same service from the same source going forward, taking into account both the present and the future experience (Ali, 2019). Therefore, the term "repurchase intention" describes a buyer's inclination to make additional purchases from a previously satisfying merchant (Samuel et al., 2023). According to Jasin and Firmansyah (2023), repurchase intention refers to the likelihood that a previous customer will buy the same goods or service again. Consequently, businesses need to consider e-loyalty, which can be influenced by factors including the quality of their website and customer service, as well as the value proposition, security measures, and promotional efforts (Al-Reesh, 2022).

Tung-Hsuan (2012) investigated the link between E-service quality and customer loyalty in online shopping. The study analyzed the correlation between e-service quality and the probability of repeat business. Two models were used to examine the relationship between different factors and consumers' tendency to make repeat online purchases: the e-commerce customer satisfaction index (ECCSI) model and the NetQual model. In addition, statistical software was used to run various statistical analyses on the acquired data, including descriptive statistics, internal consistency, factor analysis, simple regression, and multiple regression. According to the study's results, information and simplicity of use substantially impacted the likelihood that online buyers would make repeat purchases. Moreover, there was a statistically association between customer satisfaction and loyalty and the quality of e-services, suggesting that customers' satisfaction and loyalty levels when purchasing online increased their probability of returning. Therefore, it was suggested that e-commerce sites place a premium on providing first-rate e-services to boost customer happiness, loyalty, and the likelihood of a repeat purchase.

Jinlong (2015) examined how the quality of an online service affected a customer's propensity to buy again. The study used a questionnaire survey approach. The study found that customer satisfaction with a company's e-service quality has a major impact on customers' propensity to make repeat purchases, with price and product quality having the greatest positive and significant effects on satisfaction. In contrast, website design, information quality, order fulfilment, and customer service quality had no discernible impact. Accordingly, the research suggests that e-commerce sites boost consumer satisfaction by tightening controls on product quality and bolstering their competitive price.

Amelia and Indriani (2021) conducted a study in Indonesia to determine how satisfaction with an online service affected consumers' propensity to make repeat purchases. The study's overarching goal was to identify whether or not the various aspects of electronic service quality (including usage, website design, responsiveness, personalization/customization, and assurance) have any bearing on customer satisfaction and, by extension, on the likelihood of repeat purchases. SEM (structural equation modelling) was employed for analysis, and 197 online shoppers comprised the total respondents. The research showed that the model suited the data well and could be

practically applied. Hence, web design, responsiveness, personalization, and customer happiness were found to have a significant effect on the likelihood of a shopper making a second purchase.

Web Service Quality and customer loyalty

Brand loyalty occurs when a customer continues to purchase a product or service from a given company despite the availability of equally good alternatives (Xing & Kohsuwan, 2022). Customer loyalty is the promise to re-buy or re-patronize a favourite product or service again and again in the future (Ozuem & Willis, 2022). Dugar and Chamola (2021) state that customer loyalty is the persistence of good word-of-mouth about a product or service by a customer after its original purchase and subsequent use. Therefore, a firm's loyal client base is more resistant to advertising from rival brands or consumers' negative perceptions of the company because of their great experiences with the brand (Abdullah et al., 2022). Customers that have been loyal for a time are less likely to abandon the brand, as they will remain loyal regardless of the circumstances.

Wenyang & Sun (2010) examined the connections between e-service quality, customer satisfaction, perceived value, and customer loyalty. The data for the study was compiled and analyzed using a mathematical model. It was discovered that customer loyalty, value, and satisfaction could be achieved by delivering high-quality e-services. It was also found that speed, privacy protection, contact, fulfilment, and response greatly influenced buyers' decisions and that e-loyalty is proportional to customer satisfaction plus perceived value. All these factors positively affect customers' propensity to return for additional purchases because they contribute to their overall pleasure.

Based on their research into the connections between trust, e-satisfaction, loyalty, and online behavior, Tang and Huang (2015) concluded that consumers place less weight on perceived ease of use (PEOU) and more on perceived usefulness (PU) while making purchases online. Satisfaction and online purchasing behavior were also found to be most influenced by shoppers' levels of trust and perceived usefulness. The authors concluded that in order to increase positive consumer reviews of the online shopping experience, business leaders should make an effort to improve the user interface of the website. Brand loyalty occurs when a customer continues to purchase a product or service from a given company despite the availability of equally good alternatives (Xing & Kohsuwan, 2022). A study by Raffaele and Orlando (2014) on Italian commerce websites revealed that consumer trust heavily depends on the website quality and that a trustworthy and user-friendly online shop boosts customer satisfaction and the chance of repeat transactions.

Using a quantitative cross-sectional research design and self-administered questionnaires, Agane et al. (2019) investigated the connection between web service quality, trust, customer happiness, and customer loyalty in the banking industry. A total of 225 participants were sampled for the study using a convenience sampling method. Testing the hypotheses involved the use of correlation and hierarchical regression. According to the research, clients are loyal to their banks if they perceive the high quality of the online services and are satisfied with them. A favorable and statistically significant link was found between web service quality and trust, satisfaction, and loyalty. The analysis revealed that web service quality accounted for 49.1 per cent of the variation in customer loyalty; it also

demonstrated that customer satisfaction is a positive and full mediator of perceptions of web service quality and customer loyalty. The study recommends that companies regularly poll their customers to determine how satisfied they are with the service they receive and make communicating with them through their website a top priority.

Research Hypotheses

Earlier studies found that e-commerce businesses have challenges, and buyers have vague expectations and a negative attitude toward online shopping (Hoffmen & Novek, 2000). While businesses have reaped many benefits from investing in online businesses, such as rapid expansion, they continue to struggle to meet the expectations of their customers (Yang et al., 2004). Also, several studies have shown that many objective and subjective aspects affect the quality of a website's service, as some online businesses often experience service breakdowns, which can occur for several reasons, the most common of which are (1) the company's failure to provide accurate product and offer details on its website, (2) the company's failure to provide adequate responses to customers' questions, and (3) the company's failure to provide adequate resources to ensure that its customers receive the products and services advertised on its website (Wu, 2006). Researchers Jeong et al. (2003) and Wilson & Keni (2018) found that a website's content significantly affects the happiness of its visitors. Therefore, the following hypotheses have been formulated to evaluate the link between web service quality and customers' purchasing behaviour.

H₁: There is no significant and positive correlation between customer satisfaction and website design quality.

H₂: There is no significant and positive correlation between a website's design and customers repurchase intent

H₃: There is no significant link between a website design and customer loyalty.

Research conceptual model

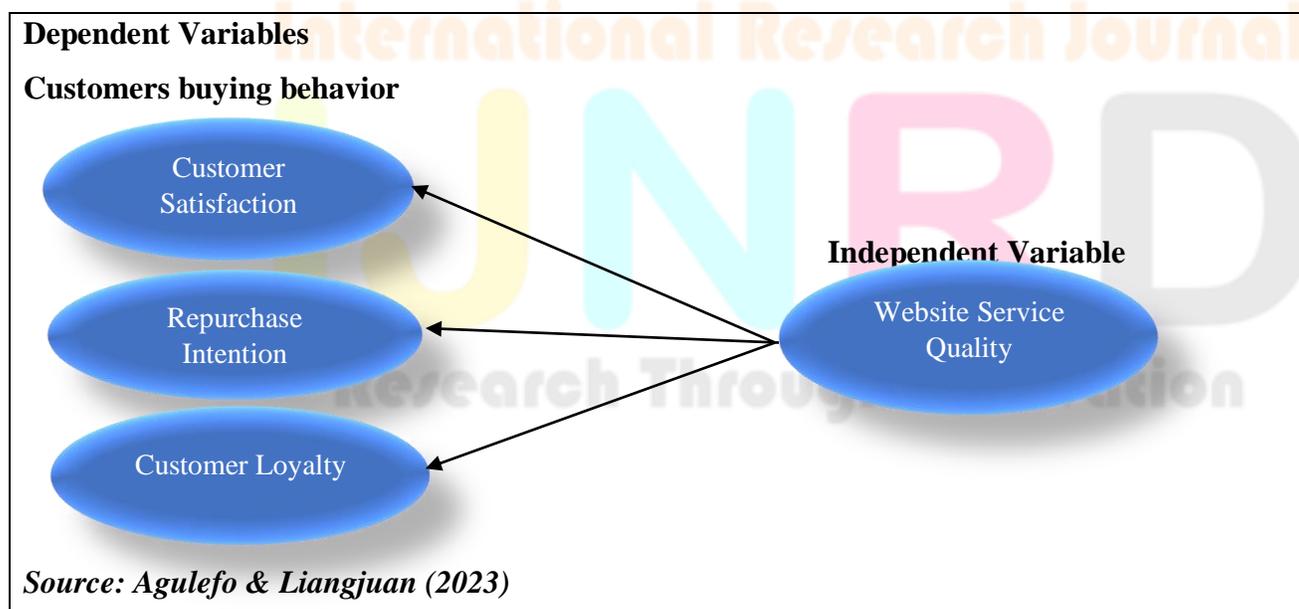


Figure 2: The Impact of Web Service Quality on Customers Buying Behavior

2. DATA AND METHODS

Research Approach

A quantitative approach was used in the study. Through statistical, computational, or mathematical methods, quantitative analysis facilitates the collection of data necessary to answer research questions (Carrión-Toro et al., 2022). This technique was used instead of repeated testing and verification because it cannot be easily duplicated. Hence, by breaking down numbers into their parts, data interpretation and presentation becomes simpler, more objective, and less susceptible to bias (Rahman, 2020). However, a few restrictions associated with quantitative research can lead researchers to miss more essential patterns and relationships due to the study method's emphasis on numbers (Mohajan, 2020). In order to accomplish the research's aims, a survey was used as the primary data collection technique. The survey approach was chosen because, with properly planned survey research, researchers may more precisely identify and manage a wide range of demographics (Griffin et al., 2022). In addition, survey findings are widely considered legitimate and can be examined and comprehended (Demergazzi et al., 2020). The study's components were characterized using descriptive statistics, which examined the correlation between the quality of a website's services and its users' propensity to make purchases (Amrhein et al., 2019).

Study Population

A population is the total number of things, subjects, or individuals that meet certain requirements (Polit & Hungler, 2017). The study's subjects were five online businesses based in Lagos, Nigeria (Panache stores, Apexfield, Easy shop, Dassengo, and Worldmart African). As of the end of the second quarter of 2022, the companies under review served a combined 25,000 consumers. The data for this report came from the human resources sections of the various internet retailers. Due to the many online customers in Lagos, the researcher narrowed the emphasis to just these five companies.

Table 3.1 Population Distribution

S/N	Online Stores	No of Employees
1.	Panache stores	5,570
2.	Apexfield	4,200
3.	Easy shop	2,230
4.	Dassengo,	1,500
5.	Worldmart African	11,500
	Total	25,000

Source: Author (2022)

Sampling technique/Sample Size

The five online stores were selected using a stratified selection method, and customers were chosen using a purposive sampling method. Therefore, the Yamane (1967) formula was used to select the necessary number of respondents to adequately reflect the population.

$$n = \frac{N}{(1 + N(e)^2)}$$

Where n = sample size

N = population of the study

e = level of significance (5% level of significance)

N = Customers = 25,000

Applying the formula;

$$n = \frac{25,000}{1 + 25,000 \times 0.05^2}$$

$$n = \frac{25,000}{1 + 25,000(0.0025)}$$

$$n = \frac{25,000}{1 + 62.5}$$

$$n = \frac{25,000}{63.5}$$

$$n \equiv \underline{394}$$

The survey comprised 394 randomly selected customers. Target consumers were selected because of their willingness to provide honest feedback regarding their experiences making purchases through the business's website. The analysis of the study was based on the participant's answers to a series of questions; the questions were designed to gauge the participants' attitudes toward the website's service quality, customer loyalty, repurchasing, and overall satisfaction. Each participant needed to have purchased through the companies' online stores within one calendar year, ensuring the impartiality of the results.

Bowley's (1929) proportion allocation method was used to calculate the proper number of questions to be filled by each online store customers in each online company under study.

Where:	nh	=	Number of units allocated to each stratum
	n	=	Total sample size
	Nh	=	Number of items in each stratum in the population
	N	=	Total population

Table 3.2 Proportional Allocation

S/N	Online Stores	Population Size	Sample Size
1.	Panache stores	5,570	$\frac{5,570 \times 394}{25000} = 88$
2.	Apexfield	4,200	$\frac{4200 \times 394}{25000} = 66$
3.	Easy shop	2,230	$\frac{2230 \times 394}{25000} = 35$
4.	Dassengo,	1,500	$\frac{1500 \times 394}{25000} = 24$
5.	Worldmart African	11,500	$\frac{11500 \times 394}{25000} = 181$
	Total	25,000	394

Source: Author (2023)

Data Collection Methods

The managers at the participating businesses were given access to an online survey they could distribute to their clients to collect the necessary information for the research. Respondents were surveyed using standardized, closed-ended questionnaires to compile the data we needed. This method was chosen because of how simple it is to use, how quickly it can be administered, how little impact the interviewer has on the results, and how free it is from misinterpretation (Ferrario et al., 2022). The questionnaire was split into two parts: the first dealt with the online business each respondent has patronized, while the second section had 16 items reflecting the four categories under investigation. Each responder was also asked to score each statement in the second half of the questionnaire on a 5-point Likert scale, where strongly disagree is 5, disagree equals 4, uncertain equals 3, agree equals 2, and highly agree equals 1.

Data Analysis method

The data collected were analyzed using SPSS; this statistical method was selected because it makes data analysis and comprehension simpler for researchers (Pallant, 2020). Linear regression was used to assess the hypotheses. Regression was selected as the method of analysis because of its usefulness in identifying effects and ascertaining the existence, strength, and predictability of a statistical relationship between dependent and independent variables (Peng et al., 2019).

Validity and Reliability

A pilot study was conducted before diving into the main questionnaire distribution. Pilot studies are necessary before conducting a large-scale survey because they allow researchers to obtain a deeper grasp of their topic before plunging in (Mutz & Müller, 2016). According to Kaur et al. (2017), a pilot study is conducted to validate a questionnaire's reliability and validity and gather information supporting the study's intended direction. Before committing to a

comprehensive study effort, scientists will often undertake pilot studies to test or refute hypotheses about the links between the phenomena of interest (Thomas, 2017). These studies help ascertain whether the selected methodologies and instruments are adequate to investigate the issue. In addition, pilot studies aid in question and data collection selection (Morris & Rosenbloom, 2017) by weeding out unnecessary factors and data that do not exist in the sample. It was decided to conduct a pilot study with 25 participants by sending an email containing a link to the survey to five employees at each of the 25 online firms in the study. After receiving responses, we were able to make improvements to the survey. The pilot study's purpose was to guarantee that respondents could complete the questionnaire without any problems and that the data processing phase would proceed smoothly. The time it would take participants to complete the questionnaire, the clarity of the instructions, the level of ambiguity in the questions, whether or not respondents thought anything was missing, and the clarity and appeal of the layout were all factors that were to be considered. The pilot study results indicated that the participants could understand and fill out the questions.

3. RESULTS

Various data types were processed, analyzed, and generated into patterns using SPSS software. Calculating the means of the questionnaire responses helped identify the dependent and independent variables. Hence, the information was then used to develop measures of correlation and regression.

Table 4.1 Participants Response Rate

Questionnaire distribution	Frequency
Total sample	394
Valid actual Responses	390
Total invalid responses	4
Total response rate (%)	86%

Total Response Rate

$$\text{Total Response Rate} = \frac{\text{Valid Actual Responses}}{\text{Total Sample}} \times 100$$

$$\text{Total Response Rate} = \frac{390}{394} = 99\%$$

According to Table 4.1, the researcher anticipated gathering 394 survey responses. Nonetheless, 390 participants correctly filled out the questionnaire. As a result, a response rate of 99% was obtained, indicating that four replies were missing from the responses. According to Mugenda & Mugenda (2010), a response rate of 70 percent or more is considered sufficient for analysis and making recommendations. Therefore, the response rate of the study was deemed suitable for analysis.

Table 4.2 Participants for each online store

	Online Store			
	Frequency	Percent	Valid Percent	Cumulative Percent
Panache Stores	86	22.1	22.1	22.1
ApexField	66	16.9	16.9	39.0

Easy Shop	35	9.0	9.0	47.9
Dassengo	23	5.9	5.9	53.8
Worldmart Africa	180	46.2	46.2	100.0
Total	390	100.0	100.0	

Source: SPSS Computation

Table 4.2 shows the total number of participants who shopped with each online store under study. Based on the data collected, it was found that 22% of respondents shopped at Panache, 17% patronized ApexField, 9% patronized Easy Shop, and 6% preferred Dassengo Online, while 46% preferred to shop at Worldmart Africa.

Correlation Analysis

The Bi-Variate correlation measures the strength and direction of the relationship between two ordered variables. The strength of a relationship is represented by a correlation coefficient whose value is between +1 and -1. In contrast, in a linear relationship, the sign of the coefficient indicates which way the relationship is trending. If $r = 1$, the ranks are perfectly correlated; if $r = 0$, there is no correlation between the variables; and if $r = -1$, there is a perfect negative correlation between the variables. When r is close to zero, the correlation between the variables is weak.

The strength of the relationship will be assessed as follows:

$0.10 < r < 0.30 \Rightarrow$ Low Correlation

$0.30 < r < 0.50 \Rightarrow$ Moderate Correlation

$r > 0.50 \Rightarrow$ Strong Correlation

Table 4.3 Pearson Correlation Analysis

		1	2	3	4
Web Service Quality	Pearson Correlation	1			
	Sig. (2-tailed)				
Customer Satisfaction	Pearson Correlation	.142**	1		
	Sig. (2-tailed)	.005			
Repurchase Intention	Pearson Correlation	.055	.207**	1	
	Sig. (2-tailed)	.282	.000		
Customer Loyalty	Pearson Correlation	-.159**	.129*	.175**	1
	Sig. (2-tailed)	.002	.011	.001	
**. Correlation is significant at the 0.01 level (2-tailed).					
*. Correlation is significant at the 0.05 level (2-tailed).					

Source: SPSS Computation

From the above *table*, we can conclude that:

The correlation between web quality and customer satisfaction is 0.005, as the p-value for the relationship between the two is equal to and not more than the significance threshold of 0.05. Though there is a negative correlation between satisfaction with web services and repurchase intentions ($r = -0.065$), the value of p (0.282) is too high to

rule out the possibility of chance. Even though the table only displays a slight negative correlation ($r = -0.159$), the association between Web service Quality and customer loyalty is statistically significant ($p 0.002$).

Test of Hypotheses

The correlation and regression analysis results will reveal whether the link between the independent and dependent variables is statistically significant. If $p < \alpha$, we will accept the argument that there is a significant association between variables. The chosen significance threshold (α) is 5 percent (0.05). The R-value reflects the degree of correlation between variables. However, the R² value indicates the proportion of the total variation in the dependent variable that can be accounted for by the independent variable. The ANOVA table indicates the degree to which the regression equation matches the data (i.e., predicts the dependent variable). The regression slope coefficient reveals whether or not the independent variables contribute significantly to the model. Positive regression slope coefficients suggest that the independent factors are more likely to influence the dependent variables, while negative regression slope coefficients indicate that the independent variables are less likely to influence the dependent variables (Heck et al., 2012; Osborne, 2017).

Hypothesis One

H₀: Website design quality has no significant and positive effect on customer satisfaction

Table 4.4 Regression Analysis

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.142 ^a	.020	.018	.462	1.800

a. Predictors: (Constant), Web Service Quality

b. Dependent Variable: Customer Satisfaction

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.696	1	1.696	7.936	.005 ^b
	Residual	82.938	388	.214		
	Total	84.634	389			

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.056	.228		13.421	.000
	Web Service Quality	.165	.059	.142	2.817	.005

a. *Dependent Variable: Customer Satisfaction*

According to the model's summary, there is a slight positive relationship between Web Service Quality and client satisfaction ($R = 0.142$). With an R^2 of 0.020, we may deduce that Web Service Quality influences Customer Satisfaction by only 2%. According to the analysis of variance, there is a significant association between customer satisfaction and Web Service Quality (with a value of 0.005, which is not more than the significant value of 0.05). The standard coefficient (Beta) of the coefficient table confirms that Web Service Quality is positively linked to customer satisfaction, where $r = 0.142$. Hence, we conclude that there is a statistically significant connection between the variables, as shown by the correlation and regression tests.

Hypothesis Two

H₀: Website design quality has no significant positive effect on repurchase intention

Table 4.5 Regression Analysis

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.055 ^a	.003	.000	.449	1.586

a. Predictors: (Constant), Web Service Quality

b. Dependent Variable: Repurchase Intention

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.234	1	.234	1.160	.282 ^b
	Residual	78.382	388	.202		
	Total	78.616	389			

a. Dependent Variable: Repurchase Intention

b. Predictors: (Constant), Web Service Quality

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.452	.221		15.596	.000
	Web Service Quality	.062	.057	.055	1.077	.282

a. Dependent Variable: Repurchase Intention

The model's summary table indicates a weak correlation ($R=0.055$) between Web Service Quality and Repurchase Intention. With an R^2 of 0.003, we can deduce that Web Service Quality influences repurchase intent, albeit only slightly. ANOVA tests the significance of the regression model and shows a value of 0.282, which is greater than the stated significant value of 0.05, implying that no statistical association exists. With $r = 0.055$ in the standard

coefficient (Beta) of the table of coefficients, a very weak relationship between Web Service Quality and intent to repurchase is reaffirmed. Hence, H_0 is accepted that neither the correlation nor the regression analysis showed a statistically significant association between the variables.

Hypothesis Three

H_0 : Website design quality has no significant positive effect on customer loyalty

Table 4.6 Regression Analysis

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.159 ^a	.025	.023	.460	1.783

a. Predictors: (Constant), Web Service Quality

b. Dependent Variable: Customer Loyalty

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.143	1	2.143	10.128	.002 ^b
	Residual	82.085	388	.212		
	Total	84.228	389			

a. Dependent Variable: Customer Loyalty

b. Predictors: (Constant), Web Service Quality

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.452	.227		19.656	.000
	Web Service Quality	-.186	.058	-.159	-3.183	.002

a. Dependent Variable: Customer Loyalty

The model summary indicates an R-value of 0.159, suggesting a moderate positive relationship between Web Service Quality and customer loyalty. The value of the R square (2.5%) shows that only 0.025 of Web service quality determines customer loyalty. The analysis of variance confirms the significance of the regression model, and the value of 0.002 (less than 0.05) suggests that the relationship between customer loyalty and Web Service Quality is significant. The moderate positive association between Web Service Quality and customer loyalty discovered in the correlation analysis table is supported by the standard coefficient (Beta) of the coefficient table where $r = 0.159$ from regression analysis. Hence, H_0 is rejected while H_1 is accepted that website design quality has a significant and positive effect on customer loyalty.

Discussion of findings

The first hypothesis was tested, showing a positive and statistically significant association between Web Service Quality and customer satisfaction with a significant value of 0.005. That being the case, we accept H1 and reject H0. It aligns with the results of a study on how website quality affects customer happiness by Lin (2007). The research provided a framework for assessing how well a web site's infrastructure, data, and service delivery affect customer happiness. Having validated the measurement model with confirmatory factor analysis, hypotheses about the relationships between the variables were evaluated with a structural model. Consequently, it was determined that customer satisfaction was highly influenced by three service quality variables (responsiveness, trust, and empathy) and two web system quality aspects (website design and interactive content). The study implied that a website's visual appeal, functionality, content, responsiveness to security concerns, and credibility all play a role in determining customer happiness. The results are consistent with a study conducted by Liang and Chen (2009), which looked at the connections between website quality, customer satisfaction, trust, the length of time spent with the company, and other aspects of the client's relationship with the company. The study shows a correlation between customer satisfaction and a business's website quality and concluded that customers are likelier to remain loyal, increase usage, and refer others to an online business if the website offers high-quality information, systems, and services.

The p-value for the second hypothesis showed no correlation between the quality of the website and the likelihood of a customer making a repeat purchase, with a significant value of 0.282, which is greater than the stated p-value of 0.05. The study's findings align with the findings of Tung-Huasan (2012). The results of his study titled "The Influence of E-Service Quality on Customers' Intentions to Repurchase Online" contradict the findings of this study. The study's goal was to explore the correlation between the quality of a company's website and the possibility of a consumer making a repeat purchase. The study was guided by the e-commerce customer satisfaction index (ECCSI) and the NetQual model, and SPSS was used to conduct basic statistical analysis, including regression and correlation. Therefore, the study indicated no correlation between the quality of a company's website and customers repurchase intentions. In contrast, the study findings negate the findings of Amelia & Indriani (2021). They examined "the impact of web service quality on consumers' repurchase intentions. The study identified the elements of a company's web service quality (usability, responsiveness, website design, personalization/customization, and assurance) and if they correlate to customer repurchasing intention. Analysis was performed using structural equation modeling (SEM), as 197 online consumers were selected to participate in the study. According to the study's authors, website quality (usability, personalization, responsiveness) and customer pleasure were all found to have a favorable and significant impact on the likelihood that a consumer would make a repeat purchase.

The third hypothesis shows a significant value of 0.002, less than the required threshold of 0.5, suggesting a statistically significant link between Web Service Quality and customer retention. The results are consistent with the findings of Wenying & Sun (2010). They studied how satisfied online customers were with several aspects of website services, including their quality, perceived value, ease of use, and overall contentment. In order to collect data and identify online shoppers, a mathematical model was used for the study. Hence, commercial websites were evaluated

on various criteria, including their ease of use, adaptability, efficiency, aesthetic quality, and security. The study found that businesses with dedicated online support teams had a significantly higher customer retention rate than those with less dedicated teams. It indicates that repeat visitors receive consistently high-quality service from the website they often visit. The results from this study are also consistent with those of Agane et al. (2019). They used a quantitative cross-sectional research approach and self-administered questionnaires to investigate the link between banking industry web service quality, trust, customer satisfaction, and customer loyalty. A total of 225 participants were selected for the study using a convenience sampling method. The study showed a positive and statistically significant correlation between web service quality and trust, contentment, and loyalty, suggesting that customers are more likely to remain loyal if they have a positive experience using their website. The results also showed that customers' perceptions of online service quality accounted for 49.1% of the variance in customer loyalty, implying a strong correlation between customer loyalty and website quality, as customer satisfaction acted as a full and positive mediator between these two concepts.

4. CONCLUSIONS

The study aimed to examine the relationship between web service quality and client purchase behavior. In order to accomplish the major objective of the study, three hypotheses were developed in response to the research question. Specifically, these hypotheses seek to determine whether high-quality website design affected customers' likelihood of becoming repeat buyers or spreading the word about a business online.

The initial objective was to determine whether there was a correlation between satisfied consumers and high-quality web design and services. The majority of respondents agreed that the information presented on the organization's website is current, easily accessible, well-designed, and interesting, making it simple to interact with the store's website to acquire information tailored to their needs and make purchases and payments online.

The second purpose was to determine the relationship between the quality of service on a website and the possibility that a customer will return to make additional purchases. Most respondents concurred that they had significant concerns with the company's online capabilities, including the availability of customer care by phone number and an intuitive live chat interface for resolving issues. Respondents believed the company was trustworthy since it fulfilled its promises about product descriptions, return policies, and usability, as stated on its website, facilitating the buying experience.

The third objective of the study was to evaluate whether there is a correlation between customer loyalty and website design quality. If they had a favorable experience with a company's website, most respondents said they would recommend it to their friends and family. In addition, the data revealed that customers are more at ease making prepayments and are loyal to their preferred online retailer because they had a positive buying experience, making it unlikely that they will ever shop elsewhere.

RECOMMENDATIONS

- i. The research suggests that web-based business owners learn more about the factors that affect web-service quality, including customer satisfaction, repurchase intent, and loyalty. This means that e-commerce site managers need to consider how orders will be fulfilled, user data will be secured, and the sites will be user-friendly.
- ii. For this reason, online business managers must ensure they have qualified web designers who understand client preferences to guarantee customer happiness with the company's business webpage.
- iii. To further instill trust in the organization, managers should negotiate contracts that specify who would be accountable for paying for damaged products in the delivery process.
- iv. E-commerce sites that aim to provide excellent customer service should have websites that are user-friendly, comprehensive, visually appealing, secure for online payments, written in clear, understandable language, and crammed with tempting offers.
- v. In addition to ensuring orders are fulfilled on time, online businesses must ensure that their customers' data are secured.

LIMITATIONS OF THE STUDY

In total, just five Nigerian online stores were included in the study. The researcher could not use a firms and a more holistic (combination of quantitative and qualitative) approach to data collection due to a lack of resources. A larger sample size would have allowed for collecting even more data, allowing for more accurate generalization and more insight when evaluating the quality of web services and the purchase patterns of clients of online businesses.

SUGGESTIONS FOR FUTURE RESEARCH

The purpose of the research was to establish the impact of the quality of web services on consumers buying behaviors and purchases. Hence, further investigation into the best practices for managing the security of credit card payments when making purchases should be studied.

References

- Aakash, A., & Aggarwal, A. G. (2019). Role of EWOM, product satisfaction, and website quality on customer repurchase intention. In *Strategy and superior performance of micro and small businesses in volatile economies* (pp. 144-168). IGI Global.
- Abdullah, N. N., Prabhu, M., & Othman, M. B. (2022). Analysing driving factors of customer satisfaction among telecommunication service providers in Kurdistan region. *International Journal of Engineering Business Management*, 14, 18479790221111436.
- Ahn, Y. Y., Han, S., Kwak, H., Moon, S., & Jeong, H. (2007, May). Analysis of topological characteristics of huge online social networking services. In *Proceedings of the 16th international conference on World Wide Web* (pp. 835-844).
- Alrubaiee, L., & Alkaa'ida, F. (2011). The mediating effect of patient satisfaction in the patients' perceptions of healthcare quality-patient trust relationship. *International Journal of Marketing Studies*, 3(1), 103.

- Ali, B. J., Gardi, B., Jabbar Othman, B., Ali Ahmed, S., Burhan Ismael, N., Abdalla Hamza, P., ... & Anwar, G. (2021). Hotel service quality: The impact of service quality on customer satisfaction in hospitality. *Ali, BJ, Gardi, B., Othman, BJ, Ahmed, SA, Ismael, NB, Hamza, PA, Aziz, HM, Sabir, BY, Anwar, G.(2021). Hotel Service Quality: The Impact of Service Quality on Customer Satisfaction in Hospitality. International Journal of Engineering, Business and Management, 5(3), 14-28.*
- Al-Reesh, M. S. (2022). The role of customer inspiration and relationship quality in engaging the online experience: insights from Kuwait and Portugal.
- Ali, H. (2019). Building Repurchase Intention and Purchase Decision: Brand Awareness and Brand Loyalty Analysis (Case Study Private Label Product in Alfamidi Tangerang). *Saudi Journal of Humanities and Social Sciences, 4(09), 623-634.*
- Amrhein, V., Trafimow, D., & Greenland, S. (2019). Inferential statistics as descriptive statistics: There is no replication crisis if we don't expect replication. *The American Statistician, 73(sup1), 262-270.*
- Aw, E. C. X., Basha, N. K., Ng, S. I., & Ho, J. A. (2021). Searching online and buying offline: Understanding the role of channel-, consumer-, and product-related factors in determining webrooming intention. *Journal of Retailing and Consumer Services, 58, 102328.*
- Anderson, R. E., & Srinivasan, S. S. (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology & marketing, 20(2), 123-138.*
- Arasu, A., Cho, J., Garcia-Molina, H., Paepcke, A., & Raghavan, S. (2001). Searching the web. *ACM Transactions on Internet Technology (TOIT), 1(1), 2-43.*
- Barnes, S. J., & Vidgen, R. T. (2002). An integrative approach to the assessment of e-commerce quality. *J. Electron. Commer. Res., 3(3), 114-127.*
- Benjamin, A. W. (2022). *Full-Service Online Casinos Versus Brick-And-Mortar Casinos: A Quantitative Disruptive Innovation Study* (Doctoral dissertation, Northcentral University).
- Blut, M. (2016). E-service quality: development of a hierarchical model. *Journal of Retailing, 92(4), 500-517.*
- Boulding, W., Kalra, A., Staelin, R., & Zeithaml, V. A. (1993). A dynamic process model of service quality: from expectations to behavioral intentions. *Journal of marketing research, 30(1), 7-27.*
- Brilliant, M. A., & Achyar, A. (2021). The impact of satisfaction and trust on loyalty of e-commerce customers. *ASEAN Marketing Journal, 5(1), 4.*
- Cetin, G. (2020). Experience vs quality: predicting satisfaction and loyalty in services. *The Service Industries Journal, 40(15-16), 1167-1182.*
- Chang, H. H., Wang, Y. H., & Yang, W. Y. (2009). The impact of e-service quality, customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value. *Total quality management, 20(4), 423-443.*
- Chiang, A. H., Trimi, S., & Lo, Y. J. (2022). Emotion and service quality of anthropomorphic robots. *Technological Forecasting and Social Change, 177, 121550.*
- Chinomona, R., & Dubihlela, D. (2014). Does customer satisfaction lead to customer trust, loyalty and repurchase intention of local store brands? The case of Gauteng Province of South Africa. *Mediterranean Journal of Social Sciences, 5(9), 23.*
- Cronin Jr, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of retailing, 76(2), 193-218.*
- Dabholkar, P. A., Thorpe, D. I., & Rentz, J. O. (1996). A measure of service quality for retail stores: scale development and validation. *Journal of the Academy of marketing Science, 24(1), 3-16.*

- Dawes, J. G., Graham, C., & Trinh, G. (2020). The long-term erosion of repeat-purchase loyalty. *European Journal of Marketing*.
- Day, G. S., & Wensley, R. (1983). Marketing theory with a strategic orientation. *Journal of marketing*, 47(4), 79-89.
- Demergazzi, S., Pastore, L., Bassani, G., Arosio, M., & Lonati, C. (2020). Information needs and information-seeking behavior of Italian neurologists: exploratory mixed methods study. *Journal of medical Internet research*, 22(4), e14979.
- Denga, E. M., Vajjhala, N. R., & Rakshit, S. (2022). The Role of Digital Marketing in Achieving Sustainable Competitive Advantage. *Digital Transformation and Internationalization Strategies in Organizations*, 44-60.
- DIGITAL 2022: GLOBAL DIGITAL OVERVIEW. <https://datareportal.com/reports/digital-2022-global-overview> report#:~:text=Global%20internet%20users%3A%20Global%20internet,of%20the%20world's%20total%20population.
- Dugar, A., & Chamola, P. (2021). Retailers with traits of consumer: Exploring the existence and antecedents of brand loyalty in small unorganized retailers. *Journal of Retailing and Consumer Services*, 62, 102635.
- Durkasree, P., & Ramesh, M. (2011). Service quality in online marketing: Customers centric analysis. *Perspectives of Innovations, Economics, and Business*, 7(1231-2016-100732), 27-34.
- Egbokhare, F., Ukaoha, K., & Chiemekwe, S. (2011, July). E-commerce adoption in Nigeria. In *International Conference on Digital Enterprise and Information Systems* (pp. 78-86). Springer, Berlin, Heidelberg.
- El Junusi, R. (2020). Digital marketing during the pandemic period; A study of islamic perspective. *Journal of Digital Marketing and Halal Industry*, 2(1), 15-28.
- Fayzullo, B., Pulatov, S. Y., Mansurov, M., Mamadaliev, F., & Meliziyaev, O. (2021). Methodology of multimedia technologies in education in the teaching of mathematics. *Web of Scientist: International Scientific Research Journal*, 2(05), 423-446.
- Ferrario, B., & Stantcheva, S. (2022, May). Eliciting People's First-Order Concerns: Text Analysis of Open-Ended Survey Questions. In *AEA Papers and Proceedings* (Vol. 112, pp. 163-69).
- Fogg, B. J. (2009, April). A behavior model for persuasive design. In *Proceedings of the 4th international Conference on Persuasive Technology* (pp. 1-7).
- Fornell, C. (1992). A national customer satisfaction barometer: The Swedish experience. *Journal of marketing*, 56(1), 6-21.
- Geiger, S., & Martin, S. G. (1999). The internet as a relationship marketing tool-some evidence from Irish companies. *Irish Marketing Review*, 12(2).
- Gommans, M., Krishnan, K. S., & Scheffold, K. B. (2001). From brand loyalty to e-loyalty: A conceptual framework. *Journal of Economic & Social Research*, 3(1).
- Gounaris, S., Dimitriadis, S., & Stathakopoulos, V. (2010). An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping. *Journal of services marketing*.
- Griffin, M., Martino, R. J., LoSchiavo, C., Comer-Carruthers, C., Krause, K. D., Stults, C. B., & Halkitis, P. N. (2022). Ensuring survey research data integrity in the era of internet bots. *Quality & quantity*, 56(4), 2841-2852.
- Handy, S., Cao, X., & Mokhtarian, P. (2005). Correlation or causality between the built environment and travel behavior? Evidence from Northern California. *Transportation Research Part D: Transport and Environment*, 10(6), 427-444.

- Hardiyanto, N., & Firdaus, A. (2021). Website Quality and The Role of Customer Satisfaction Toward Repurchase Intention: A Study of Indonesian E-Commerce. *Journal of Marketing Innovation (JMI)*, 1(01).
- Hausman, A. V., & Siekpe, J. S. (2009). The effect of web interface features on consumer online purchase intentions. *Journal of business research*, 62(1), 5-13.
- Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention: A general structural equation model. *European journal of marketing*.
- Jasin, M., & Firmansyah, A. (2023). The role of service quality and marketing mix on customer satisfaction and repurchase intention of SMEs products. *Uncertain Supply Chain Management*, 11(1), 383-390.
- Javid, M., Haleem, A., Singh, R. P., Rab, S., & Suman, R. (2021). Internet of Behaviours (IoB) and its role in customer services. *Sensors International*, 2, 100122.
- Jocevski, M. (2020). Blurring the lines between physical and digital spaces: business model innovation in retailing. *California Management Review*, 63(1), 99-117.
- Kalia, P., & Paul, J. (2021). E-service quality and e-retailers: Attribute-based multi-dimensional scaling. *Computers in Human Behavior*, 115, 106608.
- Kim, M., Yin, X., & Lee, G. (2020). The effect of CSR on corporate image, customer citizenship behaviors, and customers' long-term relationship orientation. *International Journal of Hospitality Management*, 88, 102520.
- Klepek, M., & Bauerová, R. (2020). Why do retail customers hesitate for shopping grocery online?. *Technological and Economic Development of Economy*, 26(6), 1444-1462.
- Kotler, P. (2003). *Marketing insights from A to Z: 80 concepts every manager needs to know*. John Wiley & Sons.
- Kunamaneni, S., Jassi, S., & Hoang, D. (2019). Promoting reuse behaviour: Challenges and strategies for repeat purchase, low-involvement products. *Sustainable Production and Consumption*, 20, 253-272.
- Lazirkha, D. P., Hom, J., & Melinda, V. (2022). Quality Analysis Of Digital Business Services In Improving Customer Satisfaction. *Startupreneur Bisnis Digital (SABDA Journal)*, 1(2), 156-166.
- Lizzerini, M., Mariani, I., e Lima, T. R. D. M., Felici, E., Martelossi, S., Lubrano, R., ... & Barbi, E. (2022). WHO standards-based tools to measure service providers' and service users' views on the quality of hospital child care: development and validation in Italy. *BMJ open*, 12(3), e052115.
- Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International journal of retail & distribution management*.
- Lee, H. G., & Clark, T. H. (1996). Impacts of the electronic marketplace on transaction cost and market structure. *International journal of electronic commerce*, 1(1), 127-149.
- Li, H., Zhang, C., & Kettinger, W. J. (2022). DIGITAL PLATFORM ECOSYSTEM DYNAMICS: THE ROLES OF PRODUCT SCOPE, INNOVATION, AND COLLABORATIVE NETWORK CENTRALITY. *MIS Quarterly*, 46(2).
- Lin, H. F. (2007). Knowledge sharing and firm innovation capability: an empirical study. *International Journal of manpower*.
- Lu, C. Y., Suhartanto, D., Gunawan, A. I., & Chen, B. T. (2020). Customer satisfaction toward online purchasing services: evidence from small & medium restaurants. *International Journal of Applied Business Research*, 1-14.
- Liu, T. H. (2012). *Effect of e-service quality on customer online repurchase intentions*. Lynn University.

- Loiacono, E. T., Watson, R. T., & Goodhue, D. L. (2002). WebQual: A measure of website quality. *Marketing theory and applications*, 13(3), 432-438.
- MANSUR, D. M., SULE, E. T., KARTINI, D., OESMAN, Y. M., Putra, A. H. P. K., & CHAMIDAH, N. (2019). Moderating of the Role of Technology Theory to the Existence of Consumer Behavior on e-commerce. *Journal of Distribution Science*, 17(7), 15-25.
- McKnight, D. H., & Chervany, N. L. (2001). What trust means in e-commerce customer relationships: An interdisciplinary conceptual typology. *International journal of electronic commerce*, 6(2), 35-59.
- Meyer-Waarden, L., Pavone, G., Poocharoentou, T., Prayatsup, P., Ratinaud, M., Tison, A., & Torné, S. (2020). How service quality influences customer acceptance and usage of chatbots?. *SMR-Journal of Service Management Research*, 4(1), 35-51.
- Mohajan, H. K. (2020). Quantitative research: A successful investigation in natural and social sciences. *Journal of Economic Development, Environment and People*, 9(4), 50-79.
- Najmi, A., Arshad, Y., Ahmed, W., Kanapathy, K., & Aziz, A. A. (2022). Understanding the role of in-store logistic operations in retail: findings from Pakistan. *International Journal of Services and Operations Management*, 43(1), 26-51.
- Narayandas, D. (1998). Measuring and managing the benefits of customer retention: An empirical investigation. *Journal of Service Research*, 1(2), 108-128.
- Neal, J. D., Sirgy, M. J., & Uysal, M. (1999). The role of satisfaction with leisure travel/tourism services and experience in satisfaction with leisure life and overall life. *Journal of Business Research*, 44(3), 153-163.
- Nwankpa, J. K., & Datta, P. (2022). Leapfrogging Healthcare Service Quality in Sub-Saharan Africa: The Utility-Trust Rationale of Mobile Payment Platforms. *European Journal of Information Systems*, 31(1), 40-57.
- Olaru, D., Purchase, S., & Peterson, N. (2008). From customer value to repurchase intentions and recommendations. *Journal of Business & Industrial Marketing*.
- Oliver, R. L. (2010). Customer satisfaction. *Wiley international encyclopedia of marketing*.
- Ozuem, W., & Willis, M. (2022). Brand and Customer Loyalty in Online Brand Communities. In *Digital Marketing Strategies for Value Co-creation* (pp. 105-130). Palgrave Macmillan, Cham.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. Routledge.
- Patterson, P. G., & Spreng, R. A. (1997). Modelling the relationship between perceived value, satisfaction and repurchase intentions in a business-to-business, services context: an empirical examination. *International Journal of service Industry management*.
- Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). ES-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of service research*, 7(3), 213-233.
- Peng, X. B., Kumar, A., Zhang, G., & Levine, S. (2019). Advantage-weighted regression: Simple and scalable off-policy reinforcement learning. *arXiv preprint arXiv:1910.00177*.
- Polit, D. F. (2017). Clinical significance in nursing research: A discussion and descriptive analysis. *International Journal of Nursing Studies*, 73, 17-23.
- Rahman, M. S. (2020). The advantages and disadvantages of using qualitative and quantitative approaches and methods in language “testing and assessment” research: A literature review.
- RATHOD, N. S., & HARITHA, K. (2022). A Study on Customer Satsifaction Towords Bsnl, Tirupati. *International Journal of Research in Engineering and Science*, 10 (9). 535-53.

- Renjith, S. (2018). Detection of fraudulent sellers in online marketplaces using support vector machine approach. *arXiv preprint arXiv:1805.00464*.
- Rosen, D. E., & Purinton, E. (2004). Website design: Viewing the web as a cognitive landscape. *Journal of Business Research*, 57(7), 787-794.
- Rosenberg, L. J., & Czepiel, J. A. (1984). A marketing approach for customer retention. *Journal of consumer marketing*.
- Rudd, D. H., Huo, H., & Xu, G. (2021, December). Causal Analysis of Customer Churn Using Deep Learning. In *2021 International Conference on Digital Society and Intelligent Systems (DSInS)* (pp. 319-324). IEEE.
- Rungsisawat, S., Joemsittiprasert, W., & Jermsittiparsert, K. (2019). Factors determining consumer buying behaviour in online shopping. *International Journal of Innovation, Creativity and Change*, 8(8), 222-237.
- Sadeghi, A., Ghujali, T., & Bastam, H. (2019). The Effect of Organizational Reputation on E-loyalty: The Roles of E-trust and E-satisfaction. *ASEAN Marketing Journal*, 1-16.
- Saha, P., & Zhao, Y. (2005). Relationship between online service quality and customer satisfaction: a study in internet banking.
- Samuel, S., & Anita, T. (2023). The relationship between trends in technology use and repurchase intention. *International Journal of Data and Network Science*, 7(1), 449-456.
- Saroha, R., & Diwan, S. P. (2020). Development of an empirical framework of customer loyalty in the mobile telecommunications sector. *Journal of Strategic Marketing*, 28(8), 659-680.
- Sasono, I., JUBAEDI, A. D., NOVITASARI, D., WIYONO, N., RIYANTO, R., OKTABRIANTO, O., ... & WARUWU, H. (2021). The impact of e-service quality and satisfaction on customer loyalty: Empirical evidence from internet banking users in Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(4), 465-473.
- Seiders, K., Voss, G. B., Grewal, D., & Godfrey, A. L. (2005). Do satisfied customers buy more? Examining moderating influences in a retailing context. *Journal of marketing*, 69(4), 26-43.
- Sharma, G., & Lijuan, W. (2015). The effects of online service quality of e-commerce Websites on user satisfaction. *The electronic library*.
- Sharma, V., You, I., Andersson, K., Palmieri, F., Rehmani, M. H., & Lim, J. (2020). Security, privacy and trust for smart mobile-Internet of Things (M-IoT): A survey. *IEEE access*, 8, 167123-167163.
- Singh, A., Chhetri, P., & Padhye, R. (2022). Modelling inter-firm competitive rivalry in a port logistics cluster: a case study of Melbourne, Australia. *The International Journal of Logistics Management*.
- Solomon, M. R., White, K., Dahl, D. W., Zaichkowsky, J. L., & Polegato, R. (2017). *Consumer behavior: Buying, having, and being* (Vol. 12). Boston, MA: Pearson.
- Szymanski, D. M., & Hise, R. T. (2000). E-satisfaction: an initial examination. *Journal of retailing*, 76(3), 309-322.
- Tran, V. D., & Vu, Q. H. (2019). Inspecting the relationship among E-service quality, E-trust, E-customer satisfaction and behavioral intentions of online shopping customers. *Global Business & Finance Review (GBFR)*, 24(3), 29-42.
- Wilson, F. M. (2018). *Organizational behaviour and work: a critical introduction*. Oxford university press.
- Wilson, N., & Christella, R. (2019). An empirical research of factors affecting customer satisfaction: A case of the Indonesian e-commerce industry. *DeReMa Jurnal Manajemen*, 14(1), 21-44.

- Wilson, N., Keni, K., & Tan, P. H. P. (2019). The effect of website design quality and service quality on repurchase intention in the e-commerce industry: A cross-continental analysis. *Gadjah Mada International Journal of Business*, 21(2), 187-222.
- Wyatt, P. A. (2022). *Have mobile eCommerce websites become too dependent on the hamburger menu? Navigation for mobile eCommerce websites* (Doctoral dissertation, The University of Waikato).
- Wu, L., Chiu, M. L., & Chen, K. W. (2020). Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues. *International Journal of Information Management*, 52, 102099.
- Xing, L., & Kohsuwan, P. (2022). Customer Satisfaction and Loyalty as Influenced by Service Quality, Trust, and Perceived Value in Chinese Language Training Centers in Bangkok, Thailand. *Human Behavior, Development & Society*, 23(1).
- Yaobin, L., & Tao, Z. (2005). An empirical analysis of factors influencing consumers' initial trust under B2C environment. *Nankai Business Review*, 8(6), 96-101.
- Yi, Y. (1990). A critical review of consumer satisfaction. *Review of marketing*, 4(1), 68-123.
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of business research*, 52(1), 1-14.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the academy of marketing science*, 30(4), 362-375.
- Zhuang, X., Lin, L., Zhang, R., Li, J. J., & He, B. (2021). e-service quality perceptions of millennials and non-millennials on O2O delivery applications. *British Food Journal*.

QUESTIONNAIRE

Dear Respondent,

I'm conducting a study titled "The Impact of Web Service Quality on Customers' Purchasing Behavior" on five online retail stores in Lagos, Nigeria. I respectfully request your help in completing this questionnaire. Your response will be held in the strictest confidence, and information will be used solely for academic purposes.

Thank you for your time and work.

Yours Sincerely,

(Researcher)

Section 1

Instruction: Please kindly tick (√) in the appropriate box as provided

Which of the online stores do you shop with?

- | | | |
|-----|-------------------|-----|
| (a) | Panache stores | [] |
| (b) | Apexfield | [] |
| (c) | Easy shop | [] |
| (d) | Dassengo, | [] |
| (e) | Worldmart African | [] |

Section 2

		References
	Web Service Quality	Seyed et al., (2008)
1	The information on the organization's website is relevant as they are frequently updated.	
2	The website has an aesthetically lovely and interactive layout.	
3	I can use the website to interact and acquire information suited to my unique needs.	
4	There are no issues using the website to make an online payment.	
	Customer Satisfaction	Anderson and Srinivassan, (2003),
5	I am pleased with my decision to buy from this site.	
6	I am generally satisfied with the company's online services, including a phone number and a live chat feature for complaint resolution.	
7	The products specification stated on this site is accurate and I am satisfied with them.	
8	The company gives me handy return alternatives, and it handles merchandise returns efficiently.	
	Repurchase Intention	Kim et al., (2012), Zhou et al., (2009)
9	I would want to make another purchase on this website.	
10	When I wish to shop, I consider this website to be my top option.	
11	I prefer to purchase more items from this website.	
12	I recommend to family and friends to make repeated purchases from this website.	
	Customer Loyalty	Ali & Arash (2011), Ziethaml et al., (1996)
13	I encourage family and friends to buy things from this online store.	
14	I have an emotional connection to this website.	

15	I would find it challenging to move to a different website to make purchases.	
16	As a result of my confidence in this online store, I have no issues paying for things in advance.	

