



# IMPACT OF WEBSITE QUALITY ON CUSTOMER SATISFACTION

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*Abstract* : Poor business result such as low profit margin has been identified as posing a challenge to the progress of e-commerce industry in a developing country like Nigeria. For this reason, online vendors have a task of making effort to improve the status quo by ensuring the satisfaction of their customers in online transactions. This study was carried out to determine the impact of website quality on customer satisfaction. Website quality was defined as consisting of website design and service quality.

The study was conducted based on a survey research design. A scale ranging from Strongly Agree, 4, to Strongly Disagree, 1 was used to quantify responses to statements relating website design, service quality, and customer satisfaction. Data analysis was carried out based on descriptive statistics that produced mean values and standard deviations from the statements while inferential statistics based on multiple regression analysis was also used for data analysis.

The findings of the study revealed that website design had positive impact on customer satisfaction. Service quality also had positive impact on customer satisfaction but its impact was less compared to websites design. Variation in website design by a unit resulted in 71.5 percent variation in customer satisfaction while variation in service quality by a unit was responsible for 28 percent variation in customer satisfaction. Overall test for the impact of website quality on customer satisfaction was statistically significant.

The conclusion of the study indicates that improving service quality of online vendors, as it relates to such factors as promptness of delivery, guaranteeing getting money back for returned goods, and ensuring accuracy of service delivery, was necessary for increasing the chances of customer retention and improving business prospects.

*IndexTerms* - Website quality, website design, service quality, customer satisfaction.

## INTRODUCTION

Website quality is among the variables that affect customer satisfaction in online transactions. Poor website quality is a potential source of poor business results for online vendors. Poor business result such as low profit margin is a hindrance to the progress of Nigerian e-commerce industry (The Sun, 2022). The factors that determine website quality include website design and service quality. The features of a website incorporated in its design give visitors impressions on the quality of the website. Customers' assessments of website quality are based on such factors as ease of use and graphics while the factors for assessing service quality include reliability and responsiveness. For example, websites that afford visitors easy navigation retain their interest in their various searches while sites that are slow to load increase the chances of being frustrated and leaving. This is why it is important to incorporate likeable features in designing vending sites.

It is important to ensure that online buying is associated with a reasonable level of service quality that enhances customer satisfaction. While the efficiency of internet technology plays a role in enhancing customer satisfaction, it is necessary for online vendors to take into consideration other variables that define customer satisfaction such as service quality. This is because customer satisfaction plays a significant role in achieving successful business performance (Asodike & Jaja, 2012; Srinath, 2017). Previous studies that investigated the impact of website quality on customer satisfaction include: Al-Manasra et al. (2013), Rasli et al. (2018), and Tzavlopoulos (2019). Literature review of previous studies indicates that more studies need to be conducted in Nigeria to determine the effect of website quality on customer satisfaction.

## OBJECTIVES OF THE STUDY

The broad objective of this study was to determine the impact of website quality on customer satisfaction while the specific objectives were to: assess the impact of website design on customer satisfaction; examine the impact of service quality on customer satisfaction.

## HYPOTHESES OF THE STUDY

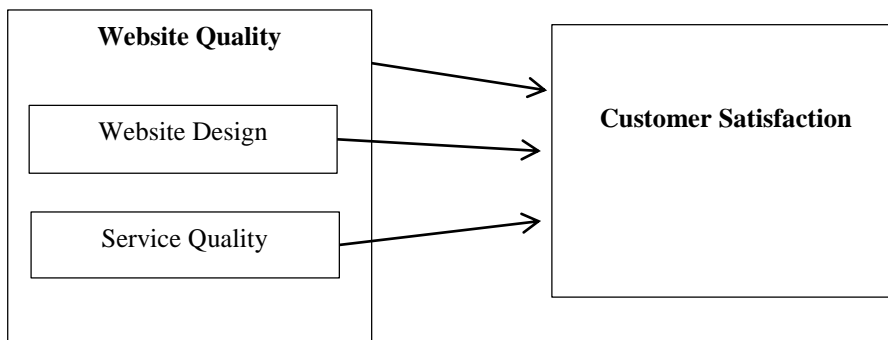
The hypotheses of this study are:

H<sub>0</sub>1: Website quality has no significant impact on customer satisfaction

H<sub>0</sub>2: Website design has no significant impact on customer satisfaction

H<sub>0</sub>3: Service quality has no significant impact on customer satisfaction

**Figure 1:** Conceptual framework of website quality and customer satisfaction



Source: Researcher, 2023

## MODEL OF THE STUDY

$$CS = \alpha + \beta_1 WD + \beta_2 SQ + \varepsilon \quad \dots \dots \dots (1)$$

Where CS = Customer satisfaction

$\alpha$  = CS-intercept

WD = Website Design

SQ = Service Quality

$\beta_1$  and  $\beta_2$  = Coefficients

$\varepsilon$  = Standard error of the estimate

## LITERATURE REVIEW

### Website Quality

Website quality refers to reliability and responsiveness of a website. A user ascribes quality to a website based on the effectiveness and efficiency of the website. For example, a website that provides relevant information that leads to purchasing the right product or service delivered at the right time is effective and efficient. The components of website quality include: ease of use and design (Bharati & Chaudhry, 2004); navigation, clear appearance, and fast loading (Wang & Emurian, 2005). These factors have roles to play in determining website quality. Faisal et al. (2016) indicated that the features of a website that contribute to the quality of the website include: simplicity, ease of understanding contents and structure, ease of navigation, speed, and user control.

### Website Design

Designing is the process of planning and creating artistic, coherent, purposeful and useful artefact that has structure (Cato, 2001). These yardsticks determine the motivational impact of websites on users and affect their desire to fulfill online transactions. Website design is among the factors that yield positive outcomes for vendors in online transactions because it influences online customers' perceptions of the quality of a website. It is important for the design features of a website to be appealing to users because a website represents an organisation online (Indeed, 2022). Designing a website not only produces the structure and layout of the website, it also produces other features such as colours, fonts and graphics. How well website design features are able to meet the needs of users determine their level of satisfaction. For this reason, vending sites have to be able to provide motivation that will make online customers desirous of revisiting the sites in order to maintain customer relationship. The features of a website shape the perceptions of users and indicate website reliability (Guo et al., 2012). Desmet and Hekkert (2007) gave indication that a good design should be able to provide beauty and appeal, motivate high level of usability, and gain user admiration.

### Service Quality

Zeithaml and Parasuraman (1996) defined service quality as the overall judgment towards service and generally relates to experiences that determine overall customer satisfaction. Service quality in online transactions refers to customers' assessment of service delivery before and after making a purchase. It is not unexpected that online customers should have expectations of quality of service delivery bothering on such issues as promptness of order delivery, accuracy of order delivery, vendor's returns policy, and offering personalized service. The extent of meeting these expectations determines service level. The variables that determine service level also relate to customer satisfaction. Tran and Vu (2019) stated that e-service quality has connection with e-satisfaction. This makes it imperative for online vendors to strive to achieve a reasonable level of service quality that guarantees customer satisfaction because transactions between online vendors and buyers that yield high-level satisfaction to the customers would more likely make the buyers to return to the vendors (San et al., 2020). This would be the situation where a vendor's website quality and service quality have positive correlation with customer satisfaction. Sharma and Lijuan (2015) posited that a website with good system quality, information quality, and e-service quality produces success in online transactions while Khan and Fasih (2014) stated that offering innovative services to differentiate service offerings enables vendors to attract and retain customers, gain competitive advantage, and make profit.

## Customer Satisfaction

Customer satisfaction indicates how well a product or service meets customer expectations (Fuller, 2022). Where a customer's expectations on product performance or service is higher than perceptions of product performance or service rendered, it results in dissatisfaction. It is, therefore, important for a firm to assess the level of satisfaction of their customers because of the relationship between satisfaction and loyalty. A firm that maintains satisfied customers has some measures of assurance of carrying out profitable business. Fornell et al. (2016) described satisfied customers as "high return-low risk economic asset". High return and low risk are consequences of satisfaction and loyalty. This indicates that customer satisfaction is a crucial factor in enhancing the financial performance of a firm in a competitive business environment. Online vendors, like offline stores, need to maintain satisfied customers in order to enhance their chances of successful performance.

## Theoretical Review

The theoretical framework of this study is the dis-confirmation theory of customer satisfaction. The dis-confirmation theory states that satisfaction is related to the size and direction of dis-confirmation experience that occurs when service performance is compared with expected performance (Ekinici et al., 2004). The theory assumes that comparing service performance with expected performance produces high satisfaction, reasonable level of satisfaction, or dissatisfaction. High satisfaction or over-fulfillment results if service performance exceeds expected performance implying positive dis-confirmation experience. A reasonable level of satisfaction results if service performance equals expected performance while dissatisfaction or under-fulfillment results if service performance is below expected performance. Satisfaction implies that the product or service caused a pleasurable level of consumption-related fulfillment (Ekinici et al., 2004). For this reason, the task of online vendors is to ensure that their service quality does not leave their customers under-fulfilled and dissatisfied.

## Empirical Review

### Website Quality and Customer Satisfaction

Conducting business on websites that have features that provide satisfaction to customers increases the chances of profitable business. Website design and service quality are among the variables that influence customer satisfaction in online transactions. Rasli et al. (2018) studied the impact of e-business on customer satisfaction in Malaysia. The findings revealed that website design, information quality, transaction and payment capability had significant and direct impact on customer satisfaction while delivery service and security and privacy had no impact.

Fernandus and Legowo (2020) carried out a research on the effect of website design, website security, information quality, and perceived ease of use on customer satisfaction in Indonesia. The results of the study indicated no significant effect of website design, website security, and information quality on customer satisfaction while perceived ease of use had significant effect. Another study by Bai et al. (2008) on the impact of website quality on customer satisfaction and purchase intention in China reported that website quality had significant and direct effect on customer satisfaction while customer satisfaction had significant and direct effect on purchase intentions. It was further indicated that website quality made people to stay on the website and eventually made them to purchase products.

Kusdiby and Februadi (2019) conducted a study that measured the influence of electronic service quality on customer satisfaction. The findings of the study indicated that e-service quality had significant positive influence on customer satisfaction. It was further reported that satisfaction was an important variable in determining customer loyalty and improving business competitiveness.

## RESEARCH METHODOLOGY

Survey research design was used to conduct this study. Data collection was carried out with questionnaire. A purposive sampling technique was used to collect data in order to ensure that the sampled participants had experience in online transactions. The population of study consisted of 1,740 employees of a food and beverage manufacturing company in Lagos, Nigeria. 30 percent of the population produced a sample size of 522 employees. The response rate was 64 percent. Data analysis was based on descriptive and inferential statistics. Descriptive statistics produced mean and standard deviation values for the statements relating to website design and service quality. The responses were measured on a four-point scale ranging from strongly agree, 4, to strongly disagree, 1. Inferential statistics, based on multiple regression analysis, was the basis for determining the impact of predictor variables on customer satisfaction.

**RESULTS AND DISCUSSION****Results of Descriptive Statistics of the Study**

The results of descriptive analysis are shown in tables 1 and 2 below:

**Table 1: Website Quality  
Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
It was easy to navigate through the website	334	1.00	4.00	2.8713	.97331
Website was quick to provide information	334	1.00	4.00	2.8084	.99810
Website had attractive colour combinations	334	1.00	4.00	2.9042	.91194
Website had contents that enabled comparing information about products in order to reach buying decision	334	1.00	4.00	2.6138	1.03856
It was easy to assess the progress of an order	334	1.00	4.00	2.9641	.89973
Product was promptly delivered	334	1.00	4.00	2.6138	1.03856
Vendor guaranteed getting money back for returned goods	334	1.00	4.00	2.5988	.99585
Service delivery was accurate	334	1.00	4.00	2.5988	1.03140
Service delivery met my expectation	334	1.00	4.00	2.6707	1.05945
A feature of the website was providing personalized service	334	1.00	4.00	2.6617	1.00863
Valid N (listwise)	334				

**Source:** Researcher, 2023

Table 1 shows mean values of website quality characteristics that relate to customer satisfaction. Higher mean values indicate qualities that have high potential to result in customer satisfaction.

**Table 2: Customer Satisfaction  
Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Easy navigation through the website gave me satisfaction	334	1.00	4.00	2.7515	1.01101
Providing quick information by website gave me satisfaction	334	1.00	4.00	2.8263	.98932
Attractive colour combinations of website gave me satisfaction	334	1.00	4.00	2.8743	.95659
Website contents that enabled comparing information about products in order to reach buying decision gave me satisfaction	334	1.00	4.00	2.6467	1.04596
Assessing the progress of an order with ease gave me satisfaction	334	1.00	4.00	2.6467	1.04596
Prompt delivery of product gave me satisfaction	334	1.00	4.00	2.7216	.97276
Guaranteeing getting money back for returned goods by vendor gave me satisfaction	334	1.00	4.00	2.7515	.94975
Accuracy of service delivery gave me satisfaction	334	1.00	4.00	2.7814	.94129
Service delivery meeting my expectation gave me satisfaction	334	1.00	4.00	2.6737	1.02143
Personalized service of the website gave me satisfaction	334	1.00	4.00	2.7605	.94414
Valid N (listwise)	334				

**Source:** Researcher, 2023

Table 2 shows website quality characteristics that have potential to yield customer satisfaction. Higher mean values indicate higher potential to yield customer satisfaction.

Results of Inferential Statistics

Table 3: ANOVA

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7470.868	2	3735.434	4657.648	.000 <sup>b</sup>
	Residual	265.697	331	.802		
	Total	7736.565	333			

- a. Dependent Variable: Customer Satisfaction
  - b. Predictors: (Constant), Service Quality, Website Design
- Source: Researcher, 2023

The results in table 3 indicate that the test is statistically significant [F(2,331)df = 4657.648, p < 0.05]. Therefore, the null hypothesis, website quality has no significant impact on customer satisfaction, is rejected at 5 percent level of significance.

Table 4: Coefficients

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.042	.165		.257	.798
	Website Design	.715	.037	.697	19.286	.000
	Service Quality	.280	.034	.294	8.143	.000

- a. Dependent Variable: Customer Satisfaction
- Source: Researcher, 2023

Table 4 indicates that website design has positive impact on customer satisfaction ( $\beta_1 = 0.715$ , p < 0.05). Table 4 also indicates that service quality has positive impact on customer satisfaction ( $\beta_2 = 0.280$ , p < 0.05). Therefore, the null hypotheses - website design has no significant impact on customer satisfaction; and service quality has no significant impact on customer satisfaction, are rejected at 5 percent level of significance.

Table 5 Model summary of predictors of customer

Model Summary									
Model	R	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	
					F Change	df1	df2		
1	.983 <sup>a</sup>	.966	.89730	.966	4639.469	2	331	.000	

- a. Predictors: (Constant), Service Quality, Website Design
- Source: Researcher, 2023

It is shown in table 5 that website design and service quality explained 96.6 percent variation in customer satisfaction.

These results indicate that website design had positive impact on customer satisfaction ( $\beta_1 = 0.715$ , p < 0.05). Service quality also had positive impact on customer satisfaction ( $\beta_2 = 0.280$ , p < 0.05). This led to the rejection of the following null hypotheses: H<sub>02</sub>: website design has no significant impact on customer satisfaction, and H<sub>03</sub>: service quality has no significant impact on customer satisfaction.

The overall test for statistical significance revealed that website quality had significant impact on customer satisfaction [F(2,331) = 4657.648; p < 0.05]. Based on the results of this study equation (1) is rewritten as:

$$CS = 0.042 + 0.715WD + 0.280SQ \dots\dots\dots (2)$$

These results are similar to the results of the study conducted by Kusdibyo and Februadi (2019), Rasli et al. (2018), and Bai et al. (2008). Kusdibyo and Februadi (2019) conducted a study that measured the influence of electronic service quality on customer satisfaction. The findings of the study revealed that e-service quality had significant positive influence on customer satisfaction. The study by Rasli et al. (2018) indicated that website design had significant impact on customer satisfaction while Bai et al. (2008) reported significant and direct effect of website quality on customer satisfaction.

## CONCLUSION

This study defined website design and service quality as components of service quality that influence customer satisfaction. The results indicate that these components of website quality had significant influence on customer satisfaction individually. However, service quality had less impact on customer satisfaction. The overall test indicated that the impact of website quality on customer satisfaction was statistically significant. These results indicate a need for improving service quality of vendors bothering on such factors as promptness of delivery, guaranteeing getting money back for returned goods, and ensuring accuracy of service delivery. This has the potential to increase the chances of customer retention and improve business prospects.

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