

Impact of Information Quality on E-Customer Loyalty in Nigerian Online Shopping

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Abstract

This study investigated impact of information quality on e-customer loyalty in Nigerian online shopping. The study adopted a correlational survey research design in a non-contrived setting. Both primary and secondary methods of data collection were employed to obtain relevant data for analysis. The instrument of data collection employed was the questionnaire. The study population comprised 88,255,299 online customers drawn from within the Nigerian online shopping sector. The study sample size was 389 and this was determined through the use of Taro Yameni sampling technique. The data was analyzed using the Pearson Product Moment Correlation technique through the aid of Statistical Package for Social Science (SPSS) version 23.0. The result of the findings revealed existence of significant and positive relationship between information quality and e-customer loyalty in Nigerian online shopping. The study concluded that information quality has significant and positive relationship with e-customer loyalty in Nigerian online shopping, which means that information quality strongly predicts behavior in e-loyalty within the Nigerian online shopping. Based on the conclusion, the study recommended that Nigerian online shops should provide step by step approach for order placement in an accurate and commendable manner in order to boost repeat purchase and customer acquisition; Nigerian online shops should also create relevant and secured information that is valid by the customer standard in order to improve their customer loyalty.

Keywords: *Information Quality, E-Customer Loyalty, Repeat Purchase, Customer Acquisition.*

Introduction

Online shopping has become a fulcrum for global interaction and economic development in this modern day. It is a popular means of shopping in the internet community across several parts of the globe in this 21st century. Online shopping is enabled by the presence of the internet which of course, has revolutionized today's transaction mode, the world over. According to Nwokah (2018), the 21st century world has moved past the brick and mortar lifestyle to a click and mortar stage which literarily implies purchase or transaction just by the click of the button from the comfort of the home. The importance of online shopping is reflected in its overwhelming role of facilitating consumer purchase behavior by providing the consumer with more choices and convenience via the website. According to Nwokah (2018), online shopping advantages for both consumers and retailers include shopping 24hrs daily, lessened dependence to traditional store visits, declined travelling costs, amplified market area, reduced overhead expenses and wide market offerings. Ozuru, Ogbuji and Amue (2015) argued that online shopping environment in Nigeria has become increasingly sophisticated, evolving from open air markets to modern malls and online shops, mainly due to a growing population, urbanization and emerging middle class. Kannan and Alice (2015) hint that one of the advantages of online shopping is that it provides the consumers with detailed information and multiple choices so that they can compare products and prices even from the comfort of their homes. Online shopping platforms enable consumers to shop at any time and have access to products not available in their geographic regions; they are now able to access the internet, not only from their personal computers, but from advanced electronic devices such as mobile phones and laptops (Alam & Yasin, 2010). Ifeanyi-chukwu (2016) posited that customers leverage on online shopping to search for their desired products online at the comfort of their homes, make choices and place the order online, make payment (either online or offline) and have their ordered products delivered to them at their door steps (Ozuru et al., 2015).

Following heavy profit antecedents within the Nigerian online shopping environment and in view of the fact that no individual or organization has the monopoly of business, too many companies have started to compete for more customers. Also, new entrants are finding their way into the industry thereby, triggering more intense competition (Ozuru et al., 2015). Under this circumstance, online retailers are compelled by the climate of opinion, to adopt means of overcoming the competition and win as many loyal customers as possible. Against this view, Dawn and Chowdhury (2011) opine that information quality as a veritable element of electronic customer relationship management has become the main medium through which online businesses achieve customer loyalty and overall business performance. Information quality has been a strategy in recent times, used by electronic businesses in managing detailed information

about individual customers and carefully managing customers touch points in order to maximize customer loyalty and boost customer relationships (McKinney, Yoon & Zahedi, 2012). Previous researches on information quality and e-customer loyalty lack content tenuity to guide managers in the Nigerian online shopping context on how they can win e-customer loyalty through information quality. This is probably because most of such studies are foreign and conducted using other performance measures. For instance, Muhammad, Yi and Shumaila (2014) concentrated on e-trust and e-satisfaction in China. Assad, Rashid and Rana (2018) explored the factors affecting e-commerce customer loyalty in Pakistan; Hamideh, Naser and Seyed (2014) investigated the effects of online shopping on customer loyalty, in the context of online shopping in Iran; Paulo, Tiago and Almira (2019) examined the impact of e-service quality and customer satisfaction on customer behavior in online shopping in Indonesia. Nebojsa, Milorad and Tanja (2019) investigated the influence of online shopping determinants on customer satisfaction in the Serbian market; Ab Hamid, Cheng and Akhir (2011) studied the relationship between Web Sites and customer perceived value of Hotels; Alim and Ozuem (2014) investigated the linkage between information quality and customer loyalty in UK mobile industry. There are little or no empirically evidenced studies on the relationship between information quality and e-customer loyalty in the Nigerian online shopping (to the best of the researcher’s knowledge). The kernel of this paper is to uncover the impact of information quality on e-customer loyalty in Nigerian online shopping.

Conceptual Framework

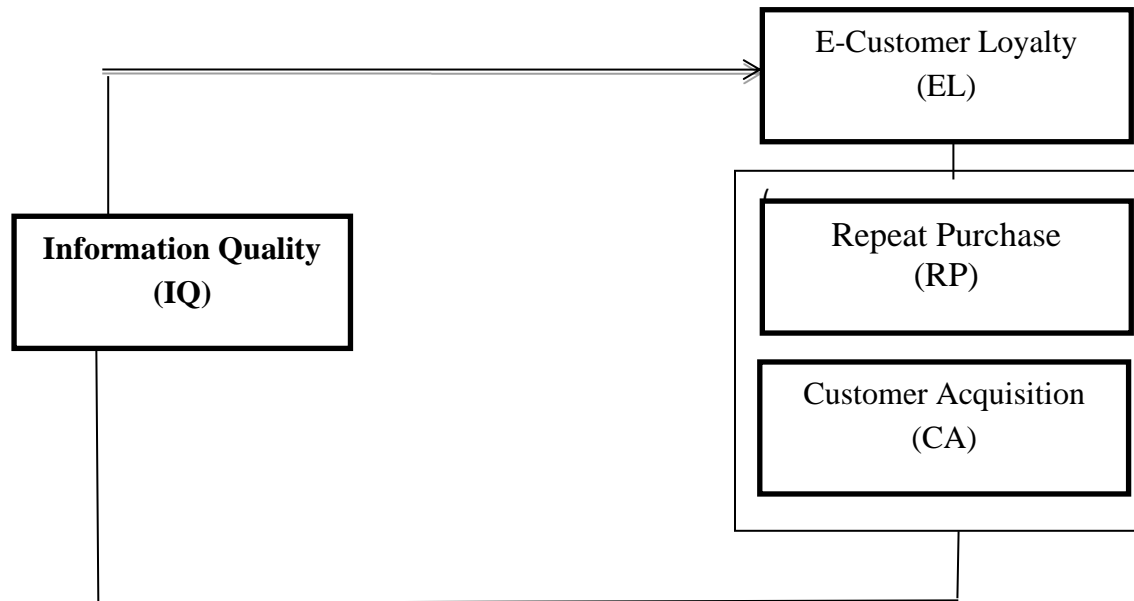


Figure 1: Conceptual framework of the relationship between information quality and e-customer loyalty in Nigerian online shopping

Source: Research Desk, 2021 as adapted from Ab Hamid, N. R., Cheng, A. Y., & Akhir, R. M. (2011); Saleky, S. R. J., Wen, L. C., Payangan, O. R., & Pono, J. M. (2018); Nyarko, I. K., & Agyeman-Duah, A. V. (2016).

Theoretical Foundation

Information Adoption Model (IAM)

The information adoption model was developed by Sussman and Siegal in 2003. Its aim was to explain how people are influenced to adopt advice or recommendations in computer mediated communication. The theory holds that humans interact with each other and depend on information technology for advice. The highlight of this model was internet website usage as a mediator in the relationship between information process and the influencing processes. The two distinct processes that influence the users' perception of the usefulness of information are source credibility and argument quality. Shen, Cheung and Lee (2013) indicated that there has been a further examination of the information adoption model in recent times. Relatedly, Shen et al. (2013) opined that there is a lack of research devoted to understanding the adoption of contextually relevant information in ubiquitous environment. Lee (2005) stated that unlike information received from websites, optimal information can be delivered to potential consumers based on their spatial, temporal and personal contexts through ubiquitous devices. The implication of this theory to our study is that since humans interact with each other and depend on information from the internet, online retailers can win loyalty of customers by meaningfully engaging internet users through secured and quality information.

Understanding the Information Quality (IQ)

Information quality is a reflection of relevancy, recency, sufficiency, consistency and understandability. Since a consumer's decision making efficiency improves when searching is simplified, information presented on the sites should be easy to understand and up-to-date. Information quality has been defined in different ways by several scholars. Generally, information quality is the ability to satisfy stated and implied needs of the consumer regarding information. Consumer of information refers to the user, so the user influences information quality (Floridi, 2013). Hunt and Cant (2017) view information quality as information that is fit for use by information consumers. According to Alshikhi and Abdullah (2018), information quality is the characteristic of information to meet or exceed customer expectations, that is, quality information is information that meets specifications or requirements. Floridi (2013) regards information quality as the degree to which information has content, form and time characteristics which give it value to specific end users. Quality of information can be measured by the difference between the required information determined by a goal and the obtained information. In an ideal situation, there will be no difference between the required and obtained information. Information quality is therefore, the characteristic of information to meet the functional, technical, cognitive, and aesthetic requirements of information producers, administrators, consumers and experts. Information quality is the ability to satisfy stated and implied needs of the consumer regarding information that is, how customers are acquired, retained and made loyal (Floridi, 2013). Customer acquisition and retention orientations are not mutually exclusive because a business can choose to focus on both, though to different degrees when high quality information is shared accordingly (Stone & Woodcock, 2014). The dissemination of quality information breeds customer acquisition, advocacy, retention and loyalty which are important to organizations for new business start-ups, when entering new geographic or customer market segments, when exploiting new applications for a product or service, when marketing low involvement products and services, when switching costs are low. Also, when markets show growth potential it is more strategically important for all players to grow the aggregate market size by disseminating viable and quality information (Villanueva, Yoo & Hanssens, 2008).

According to Alshikhi and Abdullah (2018), information quality is the characteristic of information to meet or exceed customer expectations and the fulfillment of customer expectations in the online environment is an antecedent of e-customer loyalty. E-customer loyalty is at the peak of organizational performance and information quality is considered one of the key determinants for the quality of organizations' decisions and actions (Stvilia, Gasser, Twidale & Smith, 2007). E-customer loyalty is a development process that requires contribution from the organization and customers via communication; in other words, an online retailer and a customer should support and help each other in nourishing their mutual fidelity in a better manner (Pan, Sheng & Xie, 2012). Therefore, information becomes more often a critical resource to organizations. This is particularly the case, when considering that more than 98 percent of organizations' assets and those of its customers are managed by data and information (English, 2009). Mai (2013) acknowledges that the primary problem in most organizations is not how to do things right, but to have the information that tells what the right things are to do to achieve firms' objectives. The attributes of information quality are accuracy, completeness, consistency, integrity, personalization, relevancy, reliability, secureness, timeliness and validity among others (AlHakim, 2007). Some additional attributes include accessibility and interpretability. Information quality is defined based on how customers perceive the quality of information given by online retailer websites.

Customers are more likely to have better judgment when they are given accurate information as much as possible. Therefore, the more quality information is provided by the online retailers, the better the decisions made by customers with less time and effort, which consequently leads to an increase in customers' satisfaction (Hunt & Cant, 2017).

The Concept of E-Customer Loyalty (EL)

Loyalty has been a major study by various marketing researchers. Loyalty is the continuous relationship between the customer and a brand. It can be interpreted as a resistance to switch brand despite any situation or problem encountered during the business process (Coelho & Henseler, 2012). From the perspective of online marketing, e-customer loyalty is customers' preferable attitude towards e-commerce that leads to a repeat buying behavior. Satisfaction and trust are two important factors to determine patronage behavior. Service quality and assurance by online retailers greatly influence the customers' trust, as well as their level of satisfaction. The concept of e-customer loyalty extends the traditional loyalty concept to online consumer behavior. E-customer loyalty is an important issue in the competitive environment of e-marketing. E-customer loyalty is defined as the intention to revisit a website or to make a transaction from it in the future. A number of studies showed that companies can generate more profit in an online, as well as offline environment through retaining their current customers rather than acquire new ones. According to Stoian and Tugulea (2012), loyalty is a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching. Jung and Yoon (2013) viewed customer loyalty as a repetition of customer visit to a store or company for repurchases. Loyalty cuts across attitudinal and emotional commitment towards a product or service. Customer loyalty refers to a consumer's satisfaction with the product or service provided by the company and the willingness of the customer to positively advocate about the company. E-customer loyalty is defined as the intention to revisit a website or to make a transaction from it in the future. A number of studies showed that companies can generate more profit in an online, as well as offline environment through retaining their current customers rather than acquire new ones. For the purpose of this study, e-customer loyalty refers to a customer's favorable attitude towards the e-retailer that results in repeat buying behavior.

Repeat Purchase (RP)

There is limited understanding in literature about how electronic media impact repeat purchase behavior. Not much is specifically known about how online retailers can customers purchase repeatedly. Guo, Ling and Liu (2012) argue that the phenomenon of repeat purchase intentions is of significant interest in marketing, more so in online retailing. Critically defining repeat purchase in the context of this study, Hauser (2004) opines that repeat purchase means the degree to which customers are willing to purchase from the same online retailer in future. Stiff competition on the online environment makes it difficult for firms to differentiate their offers using the traditional marketing mix elements of product, price, place and promotion. Online repeat purchase intentions are believed to be important precursors to actual online purchasing and a significant amount of research effort has been devoted to identifying the determinants of online purchase intentions. Drawing on theories like innovation diffusion theory (Rogers 1983), the theory of reasoned action (Fishbein & Ajzen 1975), the theory of planned behavior (Ajzen, 1991), and the technology acceptance model (Davis 1989), researchers have modeled online repeat purchase intention as a function of attitude in the online shopping, online purchase risk perceptions, online store environment cues, product presentation formats, culture, and even personality (Jung & Yoon, 2013). With increasing consumer adoption of online purchasing, the key for sustained growth of the industry lies more in repeat purchases than initial purchases. This is because repeat purchase customers constitute the pool for developing a base of loyal patrons who tend to spend more, buy more frequently, and are more likely to spread positive word of mouth.

Customer Acquisition (CA)

According to Peter Drucker, the sole purpose of a business is to create a customer. A customer can be new in one of two senses: new to a product category or new to a company (Ludin & Cheng, 2014). New-to-a-product-category customers are customers who have either identified a new need or have found a new category of solution for an existing need. New-to-company customers are won from competitors (Arnold, Fang & Palmatier, 2011). They might switch because they feel they have found a better solution or because they value variety. Generally, new- to-company customers are the only option for growing customer numbers in mature markets where new-to-category customers are not entering the market (Lee & Bradlow, 2011). Customer acquisition is very important to companies in many

respects: for new business start-ups, when entering new geographic or customer market segments, when exploiting new applications for a product or service, when marketing low involvement products and services, when switching costs are low. Also, when markets show growth potential it is more strategically important for all players to grow the aggregate market size than protect their customer base (Villanueva et al., 2008). Customer acquisition orientation refers to a firm's focus on gaining information about potential customers, measuring their potential value, and allocating resources to acquire those with greater long-term value (Malthouse, Haenlein, Skiera, Wege & Zhang, 2013), while a customer retention orientation, conversely, entails a focus on obtaining information about, differentiating among, and allocating resources to manage relationships with existing customers on the basis of their long-term value (Rose, Clark, Samouel & Hair, 2012). The elements that comprise both customer acquisition and retention orientations can enhance the depth of customer knowledge, because their cultural and leadership aspects provide individual employees with motivation to acquire and disseminate new or existing customer information, as well as, assist in institutionalizing such information (Solomon, Dahl, White, Zaichkowsky & Polegato, 2014). Customer acquisition strategies and their effectiveness should be viewed through the prism of product readiness to the market and customer adoption. If it is a completely new product or service that is developed for the new market, then the customer acquisition strategy for that product is not only different, but must also have different business and budget objectives (Mustafa, 2011). Acquiring new customers, especially from competitors, requires a firm to change its resource configurations significantly by either differentiating its product and service offerings or reducing the cost of offering those products and services (Ludin & Cheng, (2014). In contrast, researchers suggest that across a wide range of product and service categories, the most important customer acquisition driver remains customer satisfaction.

Empirical Review

E-customer loyalty is at the peak of organizational performance and information quality is considered one of the key determinants for the quality of organizations' decisions and actions. Izyan and Boon (2014) examined the factors influencing customer satisfaction and e-loyalty in online shopping environment among the young adults in Malaysia. Convenience sampling of 193 responses were collected and questionnaire survey method was also used to collect data from the respondents. All the data gained were analyzed by various statistical methods in Statistical Package for Social Science (SPSS). Furthermore, descriptive analysis was used to describe the basic features of the data in the study; and regression analysis was adopted to test the hypothesized relationships among the variables. Findings showed that e-service quality and information quality have significant effects on customer satisfaction.

Wilda and Vera (2019) investigated the influence of system quality, information quality, e-service quality and perceived value on online customer loyalty in Padang City. Data for the study were collected from 250 customers of the online shop; customers that have shopped on Shopee's website more than twice. The research adopted SEM-PLS with smart PLS 3 program. The result showed that system quality, information quality, e-service quality and perceived value had positive and significant influence on online loyalty. Majid and Negin (2018) explored behavioral customer loyalty in online shopping as well as the role of e-service quality and e-recovery. The authors posited that online merchants need to find ways to keep trusting customers satisfied and loyal, hence the study investigated how customer loyalty can be created and/or enhanced in online shopping. The statistical population of the study included the customers of several online stores in Iran. Data collection was carried out using a questionnaire. The results indicated that information security and website performance influence e-service quality both positively and directly. Also, responsiveness, compensation, and contact positively influence e-recovery. E-recovery has positive impact on e-loyalty, which in turn significantly affects online repurchase.

Shabbir (2017) investigated the determinants of loyalty in online commerce in India. The study was aimed at understanding the impact of trust and satisfaction as antecedents of behavioral and attitudinal loyalty for the consumers in a developing country. 175 respondents were surveyed on different elements involved in online purchase during the three phases of information-search and evaluation, purchase and post-purchase. Multiple linear regression analyses were carried out to test the individual hypothesized relationships. The Regression Analysis revealed a strong positive impact of trust and satisfaction on behavioral and attitudinal loyalty. Attitudinal loyalty was found to positively influence behavioral loyalty. Further, satisfaction was found to have a strong positive relationship with trust. Kusdibyo and Februadi (2019) investigated the effect of electronic service quality on customer satisfaction and loyalty in online shopping in Indonesia. The study used quantitative method, and copies of questionnaire were distributed online to 305 respondents while 282 were valid for data analysis. Structural Equation Modeling was used to test the hypothetical analysis. The results revealed that electronic service quality has a positive and significant influence on satisfaction. Also, consumer

satisfaction influences positively and significantly on loyalty. The indirect effect of electronic service quality on loyalty was higher compared to its direct effect. That means that satisfaction is an important variable in shaping customers loyalty. Irrespective of the discussions above, we therefore propose the following hypotheses:

H₀₁: There is no significant relationship between information quality and repeat purchase.

H₀₂: There is no significant relationship between information quality and customer acquisition.

Methodology

This study adopted a cross sectional survey research design in a non-contrived setting. The study population comprised of 88,255,299 customers within the Nigerian online shopping according to www.techcityng.com. The study sample comprised of 389 customers within the Nigerian online shopping and this was determined through Taro Yameni’s sampling technique. Quantitative data were collected through a 5-point Likert scale. 347 out of the 389 copies of questionnaire were usable for the data analysis. Pearson Product Moment Correlation technique was used in testing the various hypotheses in order to determine the conjectural relationship between the predictor variable (information quality) and the criterion variable (e-customer loyalty) with the help of the Statistical Package for Social Sciences version, 23.0.

Data Analysis and Results

The primary data analysis was carried out through the use of bivariate statistics. Pearson Product Moment Correlation tool was used at a 95% confidence level. Specifically, the tests cover hypotheses H₀₁ to H₀₂ which were bivariate and all stated in the null manner. The study depended on the Pearson Product Moment Correlation technique to carry out the analysis thus the probability criterion of 0.01 significance level was adopted for accepting the null hypotheses at (P>0.01) or rejecting the hypotheses at (P<0.01).

Test of Hypotheses

Hypothesis One

Table 1: Relationship between Information Quality and Repeat Purchase

		Information Quality	Repeat Purchase
Information Quality	Correlation Coefficient	1.000	.582**
	Sig. (2-tailed)	.	.000
	N	347	347
Repeat Purchase	Correlation Coefficient	.582**	1.000
	Sig. (2-tailed)	.000	.
	N	347	347

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2021

As shown in Table 1, the Pearson Product Moment Correlation coefficient that indicates the strength and direction of relationship between information quality and repeat purchase in Nigerian Online Shopping is 0.582. This means there is a moderate (strength) and positive (direction) relationship between information quality and repeat purchase. Furthermore, significance of the relationship is shown by the probability value which is 0.000 less than the threshold of 0.01 indicating that the relationship between the variables is statistically significant. In other words, there is a moderate, positive and statistically significant relationship between information quality and repeat purchase (r = 0.582, N = 347, p = 0.000 < 0.01). In view of this result, we reject the null hypothesis which states that there is no

significant relationship between information quality and repeat purchase in Nigerian Online Shopping; and therefore, we have accepted that there is a significant relationship between information quality and repeat purchase in Nigerian Online Shopping.

Test of Hypothesis Two

Table 2: Relationship between Information Quality and Customer Acquisition

		Information Quality	Customer Acquisition
Information Quality	Correlation Coefficient	1.000	.725**
	Sig. (2-tailed)	.	.000
	N	347	347
Customer Acquisition	Correlation Coefficient	.725**	1.000
	Sig. (2-tailed)	.000	.
	N	347	347

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS Output, 2021

As shown in Table 2, the Pearson Product Moment Correlation coefficient that indicates the strength and direction of relationship between information quality and customer acquisition in Nigerian Online Shopping is 0.725. This means there is a strong (strength) and positive (direction) relationship between information quality and customer acquisition. Furthermore, significance of the relationship is depicted by the probability value of 0.000 which is less than the threshold of 0.01 indicating that the relationship between the variables is statistically significant. In other words, there is a strong, positive and statistically significant relationship between information quality and customer acquisition ($r = 0.725$, $N = 347$, $p = 0.000 < 0.01$). In view of this result, we reject the null hypothesis which states that there is no significant relationship between information quality and customer acquisition in Nigerian Online Shopping; and therefore, we have accepted that there is a significant relationship between information quality and customer acquisition in Nigerian Online Shopping.

Discussion of Findings

Results of the analysis on the relationship between information quality and repeat purchase in Nigerian Online Shopping indicated a moderate, positive and statistically significant relationship. This relationship is evident in the Pearson Product Moment Correlation coefficient ($r = 0.582$) and the probability value ($p = 0.000 < 0.01$). In view of this result, we rejected null hypothesis four which states that there is no significant relationship between information quality and repeat purchase in Nigerian Online Shopping; and therefore, we accepted that there is a significant relationship between information quality and repeat purchase in Nigerian Online Shopping. Similarly, findings on the relationship between information quality and customer acquisition in Nigerian Online Shopping indicated a strong, positive and statistically significant relationship, evident in the Pearson Product Moment Correlation coefficient ($r = 0.725$) and the probability value ($p = 0.000 < 0.01$). In view of this result, we rejected null hypothesis five which states that there is no significant relationship between information quality and customer acquisition in Nigerian Online Shopping; and therefore, we accepted that there is a significant relationship between information quality and customer acquisition in Nigerian Online Shopping.

Findings on this study confirmed the findings of other scholars who had previously done similar works. For example, results of this study corroborate with the results of Izyan and Boon (2014) who examined the factors influencing customer satisfaction and e-loyalty in online shopping environment among the young adults in Malaysia found that e-service quality and information quality have significant effects on customer satisfaction. Also, the results are in line with the results of

Wilda and Vera (2019) as they investigated the influence of system quality, information quality, e-service quality and perceived value on online customer loyalty in Padang City and found that system quality, information quality, e-service quality and perceived value had positive and significant influence on online loyalty. More so, our results in this study confirm with the results of Majid and Negin (2018) who explored behavioral customer loyalty in online shopping as well as the role of e-service quality and e-recovery. The results indicated that information security and website performance influence e-service quality both positively and directly. Also, responsiveness, compensation, and contact positively influence e-recovery. E-recovery has positive impact on e-loyalty, which in turn significantly affects online repurchase.

Furthermore, the findings of this study are in line with the findings of Shabbir (2017) who investigated the determinants of loyalty in online commerce in India and revealed the presence of strong positive impact of trust and satisfaction on behavioral and attitudinal loyalty. Attitudinal loyalty was found to positively influence behavioral loyalty. In furtherance of this, satisfaction was found to have a strong positive relationship with trust. Similarly, the findings are consistent with the empirical findings of Kusdiby and Februadi (2019) which investigated the effect of electronic service quality on customer satisfaction and loyalty in online shopping in Indonesia and revealed that electronic service quality has a positive and significant influence on satisfaction. Also, consumer satisfaction influences positively and significantly on loyalty.

Conclusion

From the literature review, it is believed that customers' perception of information quality provided by online retailer websites is a function of attributes such as accuracy, completeness, consistency, integrity, personalization, relevancy, reliability, secureness, timeliness and validity among others. Customers are more likely to have better judgment when they are given accurate, secured, relevant, valid and timely information as much as possible. Based on the empirical findings, this study concludes that information quality has significant and positive nexus with e-customer loyalty in Nigerian shopping.

Recommendations

Based on the findings and conclusion of this study, we make the following recommendations:

- i. Nigerian online shops should provide step by step approach for order placement in an accurate and commendable manner to boost repeat purchase and customer acquisition.
- ii. Nigerian online shops should create relevant and secured information that is valid by the customer standard in order to improve their customer loyalty.

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