Pertanika J. Soc. Sci. & Hum. 26 (3): 1335 - 1369 (2018)

PERTANIKA JOURNALS

SOCIAL SCIENCES & HUMANITIES

Journal homepage: http://www.pertanika.upm.edu.my/

Consumers' Demographic Factors Influencing Perceived Service Quality in e-Shopping: Some Evidence from Nigerian Online Shopping

Adamkolo, M. I.[1, 2]*, Hassan, M. S.[1] and Pate, A. U.[3]

[1]Department of Communication, Faculty of Modern Languages and Communication, Universiti Putra Malaysia (UPM), 43400 Serdang, Selangor, Malaysia
[2]Department of Mass Communication, University of Maiduguri, PMB 1069, Bama Road, Maiduguri, Borno State, Nigeria
[3]Faculty of Communication, Department of Mass Communication, Bayero University Kano (BUK), PMB 3011, Kano State, Nigeria

ABSTRACT

The literature has consistently demonstrated that consumers' perception of online stores' service quality is influenced by several factors such as technology use skills, knowledge, income, gender, age, and marital status. This study seeks to determine the differences of perceived service quality (PSQ) in online shopping based on consumers' six demographic factors: age, gender, monthly income (MI), occupation, educational qualification (EQ) and marital status (MS) within four dimensions: access, reliability, ease of use and attentiveness (EoU&A), and Security and Credibility (S&C) adopted from SERVIQUAL scale with modifications. Using snowball method and an online questionnaire, 400 participants comprising students, public servants and private organisations' employees drawn from three Nigerian cities: Abuja, Kano, and Lagos were surveyed. The hypotheses were tested using the scale. Factor analysis yielded the above-mentioned dimensions. Kruskal-Wallis (H test), Mann-Whitney test and Post Hoc test were used to determine the difference of PSQ in online shopping based on the six demographic factors involving each of those dimensions. The results indicate a significant difference of PSQ in age, educational qualification and occupation consistently exists within S&C dimension and variously within the rest of the dimensions. However, no significant difference of PSQ in MI was found in all the four dimensions. Furthermore, gender and MS indicate a significant difference

ARTICLE INFO

Article history:
Received: 06 October 2016
Accepted: 22 March 2018
Published: 28 September 2018

E-mail addresses:
adamkoloibrahim@yahoo.com (Adamkolo, M. I.)
salleh5045@gmail.com (Hassan, M. S.)
umarupate@yahoo.com (Pate, A. U.)
* Corresponding author

ISSN: 0128-7702
e-ISSN 2231-8534

of PSQ within access and EoU&A; only difference based on gender is significant within reliability; while both differences based on gender and MS are not significant within S&C dimension.

Keywords: Consumers, e-shopping, e-tailing, e-commerce, internet, online shopping, perceived service quality

INTRODUCTION

A diverse population of consumers with heterogeneous demographic backgrounds, such as age, gender, education, income, marital status, and occupation perceive the quality of services rendered by online retailers (e-tailers) with varying degrees of difference. So is the case among Nigerian consumers (Ibrahim, Hassan, & Yusuf, 2018). Available data indicate that many Nigerian consumers perceive the quality of services rendered by online stores favourably (Ibrahim, Hassan, Usman-Buni, & Dahiru, 2015). However, the literature further suggests an undulating pattern of the consumers' perceived service quality (PSQ), which according to the literature, is affected by the consumers' demographic characteristics (Chukwu & Uzoma, 2014; Falode, Amubode, Adegunwa, & Ogunduyile, 2016). Demographic characteristics are considered as critical issues for the development of e-shopping (Chen & Macredie, 2010). Hence, the urge for empirical investigations to be conducted to determine the influence of demographic characteristics on consumers' PSQ. This paper believes a clear understanding of the effects of these demographic characteristics would give e-tailers the opportunity to develop tailored strategies for improving sales.

Consumers' PSQ is the key construct and fundamental factor in online retail transactions (Wu, Chen, Chen, & Cheng, 2014). Consumers' PSQ is also seen as a critical factor influencing consumers' purchase behaviour in e-shopping contexts (Chiu, Wang, Fang, & Huang, 2014). It is also believed to be a critical factor in enhancing online retail outlet's reach and operational efficiency (Logan, 2014). Consumers' service quality expectations provide online retail firms the opportunity to overcome the limitations of size, consumer reach and compete more effectively with large, conventional (offline) retail firms (Kaplan & Haenlein, 2010; Kietzmann, Hermkerns, McCarthy, & Silvestre, 2011). Therefore, it is crucial to determine the factors influencing consumers' perception of quality in service delivery and products purchase contexts. Wu et al. (2014) had shown that there was a relationship between PSQ and consumers' human factors (demographic characteristics) such as age, gender, and so on. Female and male consumers may have different products and services need structures and models when shopping online. They may react to the same quality differently, thus resulting in differences in their expected services and products quality, which, according to Fang, Wen, George and Prybutok (2016), and Wu et al. (2014) can result in different intention.

Regarding the relationship between demographic characteristic factors and consumers' preference of online shopping,

many previous studies have determined that demographic characteristic factors can affect consumers' online information search behaviour (Kalia, Singh, & Kaur, 2016; Zhou, Jin, & Fan, 2014) and consumers' e-shopping preferences (Lian & Yen, 2014; Phang, Kankanhalli, Ramakrishnan, & Raman, 2010). Human characteristics can also affect evaluation of online shopping products and services quality (Barrera, Garcia, & Moreno, 2014; Yoon & Occena, 2015). Similarly, the literature has documented that individual consumers perceive service delivery and products quality differently (Ganesan-Lim, Russell-Bennett, & Dagger, 2008). Hence, it is argued that products and services quality perception may vary across segments of consumers (Barrera et al., 2014; Ganesan-Lim et al., 2008).

Moreover, consumers' perception is a critical factor that drives online retailing, perception of the products and services quality has been found to differ significantly between different customers (Sanchez-Perez, Sanchez-Pernandez, Marin-Carrillo, & Gazquez-Abad, 2007; Yoon & Occena, 2015). It also leads to a difference in customer satisfaction and future behaviour (Kalia et al., 2016; Lian & Yen, 2014).

Furthermore, over the recent decades, more and more retailers have realised the potential of online shopping to increase sales and service quality (Doostar, Akbari, & Abasi, 2013). With the increasing expansion of online retailing and shifts in consumers' attitudes and behaviour, both domestic and international retailers rush to improve their online marketing strategies to be more effective and evolving new ones so that they can expand their online business and maximize profits (Chukwu & Uzoma, 2014).

This study contributes to the online retail literature in two perspectives. First, given that the systematic understanding of the influence of demographic characteristics on PSQ in an online commerce context is not established (Chukwu & Uzoma, 2014; Folade et al., 2016), it is theoretically meaningful to investigate this issue in an online retailing context. Second, this study determines the potential limitation (boundary) conditions of the influence of age, gender, education, income, marital status, and occupation by investigating their link with shopping motives. Therefore, this research study provides a more comprehensive understanding of the effects of demographic characteristics on PSQ in an online retailing context.

Online shopping is more likely to be accepted in an environment with a good Internet penetration rate. Internet penetration in Nigeria is progressively spreading, particularly with the proliferation of mobile phone data and fixed wireless access (FWA) services. According to the Nigerian Communications Commission (NCC), by February 2015, there were over 83 million mobile Internet active subscriptions on global system mobile telecommunication (GSM) networks. NCC is the sector regulator in the country. The ICT market in Nigeria has expanded considerably over the past decades, with

the number of licensed Internet service providers (ISPs) rising from 18 in 2000 to 189 by the end of March 2015 according to Freedom on the Net Report (FOTN).

Internet penetration in Nigeria is progressively spreading, particularly with the proliferation of mobile phone data and FWA services. According to the Nigerian Communications Commission (NCC), by February 2015 there were over 83 million active mobile Internet subscriptions on global system mobile telecommunication (GSM) networks. As cited in Internet World Stats (IWS) (2017), according to NCC, Nigeria has a population of about 192 million, out of which 92 are Internet users (which is 47.9% of the population by December 2016). According to Freedom on the Net Report (FOTN) the information and communication technology (ICT) market in Nigeria has expanded considerably over the past decades, with the number of licensed Internet service providers (ISPs) rising from 18 in 2000 to 189 as by the end of March 2015 (FOTN, 2015; Reuters, 2015).

There are also 11 fixed-wired access (FWA) providers and four GSM mobile phone operators that provide Internet access to millions of subscribers. Nevertheless, the growth of ISPs and FWA services sector has slowed in recent years with the rise in mobile access. By February 2015, the four privately owned GSM companies namely, MTN, Globacom, Airtel, and Etisalat had combined total subscribers of over 136 million (FOTN, 2015).

With 16 million active Facebook users by June 2016 and an Internet penetration rate of 8.3%, the country has the largest population of Internet and Facebook users in Africa (Reuters, 2015). According to statistics, Internet coverage in Nigeria was 43% and 38% in 2014 and 2013, respectively. In 2013, 78% of Nigerians had access to mobile phone services, while it was 73% in 2013. By contrast, the NCC reported a mobile phone tele density of 102% in February 2015. Nigeria has 120 active Facebook users by the end of June 2015 (FOTN, 2015). Citing Facebook.com, Emmanuel (2015) stated that more than 7.1 million Nigerians access Facebook daily, making the country Africa's biggest user of social media platform, and that Twitter had opened its doors to Nigerian advertisers.

This study was performed to determine the difference-based consumers' demographic characteristics (age, gender, educational qualification, marital status, monthly income, and occupation) of perceived service quality (PSQ) in online shopping involving access to online services, ease of use of online shopping and attentiveness, reliability of online services, security of online transaction environment, and credibility of products information contexts. These dimensions were adopted with minor modifications from the service quality (SERVQUAL) model proposed by Parasuraman, Zeithamal and Malhotra (2005), Parasuraman, Zeithaml and Berry (1988, 1986, 1985). This paper discusses

research background, reviewed relevant literature, followed by research method and materials, results and discussion and wraps up with conclusion, implications, and recommendations.

LITERATURE REVIEW

E-Shopping and Perceived Service Quality: Concept and Practice

Over the past decades, research in online shopping has mainly focused on seeking to understand consumer behaviour better, identification of online consumer characteristics and the examination of cross channel shopping behaviour (Rowley, 2009). A research study conducted by Goldsmith and Flynn (2004) on the psychological and behavioural drivers of e-shopping suggested that being male or female adventurous online consumer and a heavy catalogue shopper had the most impact on PSQ. However, a study conducted by Kim and Kim (2004) found that transaction/cost factor and incentive scheme factor were important predictors of PSQ in e-shopping.

Online shopping has many connotations, which are used interchangeably. These connotations are Internet shopping, electronic shopping, e-shopping, and web shopping (Aminu, 2013). Birkin, Clarke and Clarke (2002) defined online shopping as a single, homogenous activity, the selling of goods and services via the World Wide Web (www). While Monsuwe´, Dellaert and Ruyter (2004) defined e-shopping as the usage of online stores by consumers up until the transactional stage of purchasing and logistics. Web shopping is an e-commerce system used by shoppers in the context of business-to-consumer (B2C) or business-to-business (B2B) (Ling, Chai, & Piew, 2010). This clearly indicates that online shopping requires existence of retailers' websites through which shopping is done in a virtual environment devoid of physical contact between sellers and buyers (Aminu, 2013; Ling et al., 2010). However, to attract and retain consumers, online retail stores must design and promote user-friendly websites. In addition, they must ensure that the consumers get values for their money, especially for medium and large online stores since ultimately the main goal of online shopping is to provide a platform for consumers to make exchange of goods and services with retailers via the Internet (Aminu, 2013).

Previous studies have shown that certain types (qualities) of goods are suitable for online shopping. According to Kim and Stoel (2004), the suitability of the Internet to marketing products or services depends on the products or services characteristics (qualities). There are two categories of these products. The first category consists of goods that ranged from computers to canned goods, and can be evaluated online by using text, pictures, and other digital communication formats. The second category consists of products that are referred to as experience products, which consumers prefer to see and touch before purchasing. It includes clothes and groceries (Aminu, 2013; Kalia et al., 2016).

Given that the relationships have been found between consumers' demographic

characteristics and PSQ (Salmeron & Hurtado, 2006), online stores adopt many strategic objectives to improve online service quality. An extensive content analysis of 780 United Kingdom (UK) online stores' websites was conducted to investigate consumer characteristics and establish the relationship between levels of online involvement and product type. The study suggested that the consumers predominately conduct online shopping based on the quality of services rendered by the online stores (Marchiniak & Bruce, 2004).

Consumer behaviour has been identified as a component of e-shopping (Cowart & Goldsmith, 2007). The literature suggests there are three ways to characterize the styles of consumer behaviour, these are psychographic/lifestyle approach (Lastovicka, 1982), the consumer typology approach (Moschis, 1976), and the consumer demographic characteristics approach (Westbrook & Black, 1985). Other previous studies have also identified key consumer decision-making characteristics, which range from rational shopping and quality consciousness to impulsiveness and information overload (Maynes, 1976) as part of e-shopping dimension. Sproles (1985) used findings from previous authors as a validated measure of nine basic consumer decision-making characteristics on PSQ, each of which independently represented an important mental approach to consumption. The nine characteristics are: (1) perfectionism, high-quality consciousness; (2) brand consciousness; (3) novelty-apparel consciousness; (4) hedonistic, recreational shopping consciousness; (5) "value for money" shopping consciousness; (6) impulsiveness; (7) confusion from over choice; (8) demographic characteristics; and (9) habitual, brand-loyal orientation (Cowart & Goldsmith, 2007).

Furthermore, seven motivations and determinants for online shopping service quality have been identified, namely social escapism, transaction security and privacy, information, interactive control, socialisation, non-transactional privacy, and economic motivation. These factors have been found to be correlated to consumers' demographic attributes (Korgaonkar & Wolin, 1999). Other studies used previous online purchases as a measure of the dependent variable, while transaction-based security concerns, interactive control, conversation motives, demographic characteristics, and economic motives were deemed significant predictors of PSQ. The findings of the study suggested that once people are online, when they buy products, how much money they spend and why they make purchases are direct consequences of their Internet proficiency, time availability, and demographic attributes (Cowart & Goldsmith, 2007).

Some empirical evidences have shown that product familiarity and knowledge may influence consumers' engagement with the online market and perception of service quality (Rowley, 2009). Many previous studies have found that familiarity with products offered online and previous e-shopping experience,

influence consumers' perceptions of the risk associated with e-shopping, service quality and intentions to purchase online (Park & Stoel, 2005; Siddiqui, O'Malley, McColl, & Birtwistle, 2003). Furthermore, an online store's website design and information clarity affects consumers' PSQ (Siddiqui et al., 2003). Merrilees and Miller (2005) supported those findings in a research study they performed in Australia in the context of online department stores. The researchers conclude that e-shopping is mainly a functional activity with considerable roles for interactivity, web atmospherics/ virtuality and navigability, underscoring that perception of the quality of services rendered by those e-stores are rooted in emotional product attributes such as excitement or authenticity and consumers' demographics such as age, gender, and income (Rowley, 2009).

Positive attitudes toward e-shopping perceptions that it is fun, safe, cheap and easy were shown to be linked with buying products online. In addition, these attitudes were found to be correlated with the consumers' demographic attributes (Goldsmith & Bridges, 2000). An empirical investigation into the consumer decision-making styles of college students in the United States (US) on e-shopping suggested that consumers were hedonistic shoppers, price conscious, quality conscious, responsiveness conscious, reliability conscious, impulsive, and brand loyal (Cowart & Goldsmith, 2007). However, it is important to note that not all consumer groups are the same. Kim and Kim (2004) suggested that consumers' demographic variables such as gender, age, income, and number of children were critical predictors of online shopping intention.

Effects of Demographic Attributes on Perceived Service Quality in e-Shopping

Effect of Age. A research study performed on electronic (online) banking or e-banking by Kumbhar (2011) found that PSQ, perceived value from e-banking services, and overall satisfaction in banking differ by customers' age group. Ganesan-Lim et al. (2008) found that consumer age affects service quality perceptions. Barrera et al. (2014) discovered that consumers younger than 24 years perceived a better service quality than those older than 24 years. The findings of a study was conducted by Chang and Samuel (2006) found that the age of online shoppers who was motivated to purchase products online vary – that middle-aged consumers (24 to 44 years old) tend to be primarily influenced to purchase online for the reason of convenience relative to price and product selection. Similarly, Vrechopoulos, Siomkos and Doukidis (2001) discovered that online shoppers' age fall within 24 to 44 years old age group. A study on website satisfaction suggested that the observed difference in overall website satisfaction across age groups supported the notion that on average, younger Internet users were more satisfied with websites (Pretorios, 2010).

Contrarily, however, Kalia et al. (2016) found that most online shoppers were young, and fall within the age group of 21 to 30 years old. Min and Khoon (2013) discovered

that age factor did not make any significant difference in the critical elements of service quality evaluation. In addition, age does not moderate the relationship among usefulness, enjoyment, external characteristics, and reliability (Doostar et al., 2013).

Effect of Educational Qualification. Quite many previous research studies have linked consumers' online purchase behaviour, particularly products and services quality perception to the consumers' educational background. A study conducted by Kalia et al. (2016) found that online product purchasers were well educated, open-minded, cosmopolitan, less-resistant to change, self-confident, and venturesome. Vrechopoulos et al. (2001) identified e-shoppers as mostly university undergraduates and postgraduates, while Min and Khoon (2013) empirically determined that individual online users' educational qualification influences his or her services quality perceptions. Similarly, Kumbhar (2011) empirically discovered that there is a difference in level of education between perceived services quality, perceived value from e-banking services, and overall satisfaction in e-banking.

On the contrary, however, a study has linked consumers without a university degree qualification to having favourable perception of quality services than consumers with a university degree do (Berrera et al., 2014). Ilias, Hassan and Rahman (2009) found that there is no difference in students' satisfaction toward service quality determinants and overall service quality based on students' semester of study. While, Phang, Kankanhalli, Ramakrishnan and Rama (2010) discovered that there was no significant difference between online consumers adopting a search/deliberation strategy and those adopting a hedonic browsing strategy with different education groups.

Effect of Gender. Gender has been identified as one of the critical demographical factors that determine individuals' online perceptions and behaviours (Venkatesh, Morris, Davis, & Davis, 2003) and is influential in customers' evaluation of service quality (Min & Khoon, 2013). In a research study conducted on online consumers' perception of e-shopping service quality, Kalia et al. (2016) suggested that online consumers tended to be male rather than female, and argued that women are more risk-bearing and engage in highly exploratory behaviour while purchasing online than men do. A study by Pretorios (2010) had linked female consumers with expressing greater overall website satisfaction.

Furthermore, online customers who are motivated to purchase online have been found to vary in gender and that female customers tend to make online purchase for convenience reasons relative to price and product selection (Chang & Samuel, 2006). Barrera et al. (2014) identified women online purchasers as having higher valuation of the service quality of websites than men do. However, Vrechopoulos et al. (2001) found that online shoppers was mostly male contradicts. Doostar et al. (2013) found

that gender moderated the relationship between usefulness, enjoyment, external characteristics, and reliability.

Several other studies did not support the idea that gender influences consumers' service quality perceptions. Ganesan-Lim et al. (2008) discovered that there was no difference in service quality of consumers based on gender. Ilias et al. (2009) also discovered that there was no difference in students' satisfaction of service quality determinants and overall service quality-based gender. Similarly, Kumbhar (2011) empirically found that there was no difference based on gender in perception of service quality, perceived value, and overall satisfaction of e-banking services.

Effect of Income. As one of the key demographic characteristics variable, income was found to influence online consumers' perceptions and behaviours (Sanchez-Perez et al., 2007) like other demographic factors such as age and gender (Venkatesh et al., 2003). The literature documented that Kalia et al. (2016)'s research study was found that the average monthly household disposable income of online purchasers was higher. Vrechopoulos et al. (2001) supported this finding. Chang and Samuel (2006) indicated that middle-income-earning consumers tended to make online purchase on convenience reasons in relation to price and product selection. A study on e-banking discovered that customers' income level differs with PSQ, perceive value and overall satisfaction (Kumbhar, 2011). Phang et al. (2010) found that the difference within income groups, between e-shoppers' that adopted website search strategy and those that adopted a hedonic browsing strategy.

Effect of Marital Status. Although marital status was one of the key demographic characteristics, it was not widely used in research studies (Vreschopoulos et al., 2001) as age and gender. A few previous research studies have investigated the relationship between marital status and service quality. Kalia et al. (2016) found that marital status was no significant effect on consumers' online service quality perceptions. Doostar et al. (2013) underscored the moderating influence of marital status on the relationship between usefulness, enjoyment, external characteristics, and reliability. Vreschopoulos et al. (2001) discovered that online shoppers were mostly single.

Effect of Occupation. Occupation is one of the critical demographic characteristics that can be used to determine individuals' online perceptions and behaviours (Venkatesh, Xu, & Thong, 2012). Kumbhar (2011) was identified that consumers' PSQ, perceived value, and overall satisfaction in e-banking differ based on the consumers' profession (occupation). Vreschopoulos et al. (2001) underscored that most online shoppers were private employees, scientists, or freelancers. Based on the aforementioned arguments about the direct links between demographic characteristics and PSQ, six hypotheses are formulated as follows.

E-Shopping in Nigeria

In Nigeria, online shopping is gradually becoming popular, especially among the elites, middle-income earners, professionals, technocrats, and students, who often reside in cities and urban areas. Online stores use the Internet to promote their products thereby encouraging online buying behaviour (Ibrahim et al., 2105, 2018). Online stores promote and sell their products on beautifully designed websites, which encourages consumers to do window shopping, locate products, compare prices, make purchase, drop products in e-shopping cart, make payment, and get products delivered at their door steps (Aminu 2013; Chukwu & Uzoma, 2014).

Majority of online shops in Nigeria offer a wide range of assorted products and services online. This is to give their customers the benefits of conveniently selecting and purchasing products from this range of goods on 24-h basis (Ibrahim et al., 2015, 2018). Although Nigerian consumers know little about most of the online stores in the country because many of them hardly promote their websites to attract consumers, with improved Internet infrastructure and penetration in the country, that Nigerians would be aware of and purchase products from the e-tailers (Aminu, 2013; Chukwu & Uzoma, 2014). Some of the most noticeable online retail shops as provided in the 2015 FOTN Report include Konga, Jumia, Tafoo, Glamour, Egole Shopping, and Manna Stores (FOTN, 2015).

Furthermore, findings of a study indicated that once people were online, when they bought and how much they spent were direct consequences of their Internet proficiency and time availability (Cowart & Goldsmith, 2007). Several models (of the buying process) have been developed one key model is the service quality (SERVQUAL) model developed by Parasuraman, Zeithaml and Berry (1985, 1986).

Theoretical Background: Service Quality in e-Shopping

As a marketing strategy, service quality (SERVQUAL) is a concept that has aroused considerable interest in the research literature because of the difficulties in defining and measuring it (Wisniewski, 2001). Service quality has been defined severally. A commonly used definition is the one that defines service quality as the extent to which a service meets customers' needs or expectations (Parasuraman et al., 1985, 1986, 1988, 2005). Service quality is also the difference between customer expectations of service and perceived service. The literature underscores that if expectations are greater than performance, then perceived quality is less than satisfactory; hence, customer dissatisfaction occurs (Parasuraman et al., 1985, 1986, 1988). Measuring service quality allows for comparison between pre- and post-service changes, for the location of quality-related problems and for the establishment of clear standards for service delivery (Lewis & Mitchell, 1990). According to Edvardsen, Tomasson and Ovretveit (1994) and Robinson (1999), analysis and measurement were the starting

point in developing quality in service delivery.

The SERVQUAL instrument has been adjudged the predominant method used to measure consumers' perceptions of service delivery quality and has five dimensions: tangibles, reliability, responsiveness, assurance, and empathy (van Iwaarden, van der Wiele, Ball, & Millen, 2003). Furthermore, the model was later refined by Parasuraman, Zeithamal and Malhotra (2005) and is adopted in the evaluation of electronic (online) service quality or e-SERVQUAL. The researcher defined e-service quality as the extent to which a website facilitates efficient and effective products shopping, purchasing, and delivery service. The e-SERVQUAL model has 11 parameters, namely access, ease of navigation, efficiency, flexibility, personalisation, security/privacy, responsiveness, assurance/trust, site aesthetics, and price knowledge.

Hypotheses of the Study

H^1: PSQ in e-shopping differs based on consumers' age

H^2: PSQ in e-shopping differs based on consumers' educational qualification

H^3: PSQ in e-shopping differs based on consumers' gender

H^4: PSQ in e-shopping differs based on consumers' income

H^5: PSQ in e-shopping differs based on consumers' marital status

H^6: PSQ in e-shopping differs based on consumers' occupation

MATERIALS AND METHODS

Although there is abundant literature on the effect of PSQ on consumers' acceptance of online shopping, there is dearth of studies that empirically investigated the effect of consumers' demographic characteristics on perceived quality among Nigerian online customers. Nigeria is one of the African countries with the highest Internet penetration rates and one of the continent's online market hubs (FOTN, 2015). Therefore, this research study was performed because of the urge to determine the effect of six demographic characteristics (age, education, gender, income, marital status, and occupation) on consumers' PSQ in online shopping.

Development of the Research Instrument

The testing of the hypothesis of the study was performed with a survey instrument that was designed in English language and administered via Internet to 400 online customers of three most popular e-shops in the country that had made at least two online shopping in the past 4 months. An e-mail containing a link to the questionnaire was sent to the respondents in three Nigerian cities, namely Abuja, Kano, and Lagos. Kano and Lagos cities are the commercial hubs of the country, while Abuja city is the country's administrative centre and an excellently growing business centre (Business Directory, 2016; FOTN, 2015).

Sampling Procedure and Respondents' Profile

The data were collected using snowball-sampling method, which was deemed appropriate for this study (since most of the respondents are dispersed) based on the suggestions by Babbie (2010); Malhotra and Birks (2007). Consulting Cochran (1977) sampling technique, which suggested a sample size of 380 respondents, the study rounded it up to 400. Taking from suggestions by Sekaran (2003), 400 cases were considered as a good sample size since the results can be generalised. However, 42 responses were lost during data retrieving, sorting, and cleansing. Because of that, only 358 responses were used for data analysis. This study adopted a 21-item service quality measurement (SERVQUAL) model developed by Parasuraman et al. (1985, 1986, 1988, 2005) with modifications permitted in the literature (Jun, Yang, & Kim, 2004). The 21-item scale was formulated to measure perceived online stores' services.

Of the 400 respondents, more than a half of them were male (50.25%, 201), most of them were single (61.75%, 247), and nearly a half of them (47.5%, 190) were young, aged between 18 and 31 years old. However, not quite many of them were public servants (27.5%, 109) or private organisations' employees (25.5%, 98). Similarly, not quite many of them (37.75%, 151) were students or moderate-income earners (39%, 156) (earning between ₦18,000[1] and 49,000 per month); and even fewer (25%, 100) of them were middle-income earners (earning between ₦50,000 and ₦100,000 per month).

Method of Analysis, Reliability, and Validity of the Scale

The degree of internal consistency of the items in the instrument scored a Cronbach alpha value of $\alpha = 0.928$. Based on the suggestion of Kaiser and Rice (1974), this indicated that the of 21-item scale was reliable. Since the data were voluminous, factor analysis was run. Kaiser-Meyer-Olkin (KMO)'s and Bartlett's Test results showed scores of 0.926 and under 0.001 (significant), which invariably indicates that the data were suitable for factor analysis. Furthermore, a check of the communality scores of the items indicates that all the items scored values greater than the cut-off point, that is, < 0.30.

The analysis yielded four factors, which collectively explained 59.2% of the total variance in PSQ. The predictors/ dimensions in the principal components were determined with varimax rotation of factor analysis. In this regard, for cleansing of the items in scale many researchers like Cai and Jun (2003); Francis (2005); Hair, Black, Babin, Anderson and Tatham (2006); Jun et al. (2004), and Long and McMellon (2004) suggested a 0.5 cut-off point for loadings and eliminated items with exploratory factor loadings of < 0.5. Therefore, in this study, all items with exploratory factor loadings of less than 0.5 were eliminated from further analysis. Because of that, 19 items were retained out

of the original number of 21 items in the scale. Based on Malhotra (2004), Kenny, Kaniskan and McCoach (2015); Kenny (2014) and Chong (2013)'s suggestion this confirms that all the retained items are unidimensional and distinct (mutually exclusive) since all of them have a factor loading of > 0.5. In addition, all the items used to operationalize the constructs were loaded onto a single factor.

This process yielded four factors (as mentioned earlier) (Table 1). The factors are access, ease of use and attentiveness (EoU&A), reliability and security and credibility (S&C). The scores of Cronbach alpha reliability analysis for the four factors extracted were 0.863, 0.841, 0.824, and 0.773, respectively. Concisely, all the Cronbach alpha values mentioned earlier indicate a very good internal consistency (reliability).

Furthermore, the researchers ran Kolmogrov–Smirnov one-sample test and it revealed that the data needed application of non-parametric tests. Therefore, Mann–Whitney *U* Test and Kruskal–Wallis (*H* test) were also run (Conover, 1999; Demsar, 2006). For the results of the Post Hoc tests, refer to Appendices A to C.

Table 1
Factor Analysis of the Dimensions of the Scale

Variables	Items	Components				Cronbach alpha	% of variance
		1	2	3	4		
Access						0.863	7.334
	The website identified the street and indicated the e-mail address, telephone and fax numbers of the online shop.	0.229	0.582	7.334	0.105		
	I could easily contact a customer services representative over the telephone if I wanted to.	0.428	0.592	0.278	0.154		
	The online shop's website offered multiple products ordering options such as telephone, mobile phone, e-mail and fax.	0.276	0.720	0.178	0.035		
	If I needed more information about a products and delivery service, I could turn to the online shop's chat room, bulletin board or click on the 'help' icon.	0.104	0.781	0.049	0.345		
	The online shop's website contained a link for customers to send their questions and comments about products and service delivery.	0.257	0.572	0.033	0.466		

Table 1 *(continue)*

Variables	Items	Components				Cronbach alpha	% of variance
		1	2	3	4		
Reliability						0.841	5.588
	The quantity and quality of the products I received were the same as those for which I placed an order.	0.077	0.816	0.732	0.173		
	The products I placed an order for was delivered to me within the time promised by the online shop.	0.267	0.125	0.723	0.183		
	The billing process and the billing records were accurately handled and saved.	0.266	0.200	0.731	0.044		
	The online shop's customer care representative responded to my inquiry promptly.	0.376	0.273	0.518	0.222		
	When the online shop's customer care representative promised to send me an e-mail or call me on the phone by a certain time, he or she did so.	0.175	0.419	0.538	0.246		
Ease of use and attentiveness (EoU&A)						0.824	41.490
	The online shop's web address was easy to remember.	0.580	0.805	41.490	0.095		
	The organisation and structure of the online shop's catalogues were logical and easy to follow.	0.722	0.175	0.378	0.158		
	All the online products retail terms and conditions (e.g., payment, warranty and return policies) of the online shop were easy to read and understand.	0.679	0.209	0.214	0.199		
	The online shop's website content was easy to understand.	0.808	0.186	0.198	0.117		
	I received a personal gratitude note via e-mail or other media after I placed an order.	0.506	0.227	0.168	0.305		

Table 1 *(continue)*

Variables	Items	Components				Cronbach alpha	% of variance
		1	2	3	4		
Security and credibility (S&C)						0.773	4.839
	I felt secure in providing my personal information for online products purchase.	0.417	0.753	4.839	0.567		
	I felt that the risk associated with online shopping was low.	0.269	0.009	0.183	0.678		
	The online shop's website indicated how long the online shop has been in this online business.	0.036	0.344	0.068	0.749		
	I received special rewards and discounts as promised by the online shop for doing business with it.	0.099	0.158	0.278	0.660		

RESULTS AND DISCUSSION

Results

The findings of this study are presented in Tables 2 to 6. The details of the results are discussed extensively in the Discussion sub-section for clarity and easier understanding of the main gist of the research.

The findings show significant difference of PSQ in e-shopping based on consumers' age and educational qualification within access dimension, with the following p-values $p = 0.001$ and $p = 0.021$, respectively. However, the results show no significant difference of PSQ in e-shopping based on income and occupation within this dimension (Table 2).

There was a significant difference of PSQ in online shopping based on consumers' educational qualification and occupation within Reliability dimension (with these significance values, $p = 0.017$ and $p = 0.039$ respectively). However, there was no any significant difference of PSQ in online shopping based consumers' age and income within this dimension (Table 3).

There was a significant difference of PSQ in e-shopping based on consumers' age and educational qualification within EoU&A dimension (with these significance values, $p = 0.005$ and $p = 0.044$ respectively). However, based on the consumers' income and occupation no significant difference of PSQ in online shopping was found in this dimension as shown in Table 4.

There was a significant difference of PSQ in e-shopping based on consumers' age, educational qualification, and marital

Table 2
Results of difference of PSQ in online shopping within Age, EQ, MI and Occupation Involving Access Dimension (n = 358)

Access Dimension						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Age	18 to 24 years old	132	158.34	7.066	2	0.001*
	25 to 31 years old	58	158.65			
	32 to 38 years old	59	149.58			
	39 to 45 years old	71	146.42			
	> 45 years old	38	150.34			
Educational Qualification	Postgraduate	47	153.43	7.335	2	0.021*
	Undergraduate	79	150.73			
	Higher National Diploma (HND)	67	150.46			
	National Diploma (ND)/National Certificate of Education (NCE)	80	156.29			
	Secondary School/College	85	178.43			
Monthly Income	₦18,001 to ₦49,000	156	156.51	.856	4	0.831
	₦50,000 to ₦100,000	100	160.34			
	₦100,001 to ₦150,000	77	151.55			
	> ₦150,000	25	192.82			
Occupation	Civil (Public) Service	109	145.92	0.188	5	0.567
	Private/Corporate Service	98	168.38			
	Students	151	138.90			

*Significant at 0.05; *p* Value = Significance value; ₦ = Naira (symbol of Nigerian unit of currency), F = Frequency; Df = Degree of freedom

Table 3
Results of difference of PSQ in online shopping within age, EQ, MI and occupation involving reliability dimension (n = 358)

Reliability Dimension						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Age	18 to 24 years old	132	151.47	1.588	3	.557
	25 to 31 years old	58	157.65			
	32 to 38 years old	59	164.03			
	39 to 45 years old	71	130.33			
	>45 years old	38	178.14			

Table 3 *(continue)*

Reliability Dimension						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Educational Qualification	Postgraduate	47	161.59	7.124	2	.017*
	Undergraduate	79	168.63			
	Higher National Diploma (HND)	67	152.32			
	National Diploma (ND)/National Certificate of Education (NCE)	80	146.04			
	Secondary School/College	85	148.04			
Monthly Income	₦18,001 to ₦ 49,000	156	135.14	6.250	4	0.183
	₦50,001 to ₦ 100,000	100	158.85			
	₦100,001 to ₦ 150,000	77	174.43			
	>₦150,000	25	172.38			
Occupation	Civil (Public) Service	109	164.82	9.104	2	0.039*
	Private/Corporate Service	98	154.68			
	Students	151	151.50			

p Value = Significance value (significant at 0.05); ₦ = Naira (symbol of Nigerian unit of currency), F = Frequency; Df = Degree of freedom

Table 4
Results of difference of PSQ in online shopping within age, EQ, MI and occupation involving EoU&A dimension (n = 358)

Ease of Use and Attentiveness Dimension						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Age	18 to 24 years old	132	165.76	7.321	2	0.005*
	25 to 31 years old	58	153.61			
	32 to 38 years old	59	154.60			
	39 to 45 years old	71	146.45			
	>45 years old	38	151.91			
Educational Qualification	Postgraduate	47	156.12	8.393	2	0.044*
	Undergraduate	79	166.42			
	Higher National Diploma (HND)	67	135.13			
	National Diploma (ND)/National Certificate of Education (NCE)	80	152.53			
	Secondary School/College	85	156.03			

Table 4 *(continue)*

Ease of Use and Attentiveness Dimension						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Monthly Income	₦ 18,001 to ₦ 49,000	156	170.62	3.173	4	0.783
	₦ 50,001 to ₦ 100,000	100	170.14			
	₦ 100,001 to ₦ 150,000	77	145.55			
	>₦150,000	25	182.63			
Occupation	Civil (Public) Service	109	182.63	5.179	2	0.635
	Private/Corporate Service	98	152.68			
	Students	151	150.09			

*Significant at 0.05; *p* Value = Significance value; ₦ = Naira (symbol of Nigerian unit of currency), F = Frequency; Df = Degree of freedom

status within S&C dimension. However, no significant difference of PSQ in e-shopping based on consumers' monthly income was found within this dimension as shown in Table 5.

Table 5
Results of difference of PSQ in online shopping within age, EQ, MI and occupation involving S&C dimension (n = 358)

Security and Credibility						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Age	18 to 24 years old	132	165.83	6.095	2	0.044*
	25 to 31 years old	58	150.04			
	32 to 38 years old	59	160.93			
	39 to 45 years old	71	140.29			
	>45 years old	38	152.36			
Educational Qualification	Postgraduate	47	162.11	8.323	2	0.037*
	Undergraduate	79	154.97			
	Higher National Diploma (HND)	67	97.08			
	National Diploma (ND)/National Certificate of Education (NCE)	80	148.84			
	Secondary School/College	85	151.93			

Table 5 *(continue)*

Security and Credibility						
Demographic Characteristics		Statistics				
		F	Mean	χ^2	Df	*p* Value
Monthly Income	₦ 18,001 to ₦ 49,000	156	121.91	3.583	4	0.543
	₦ 50,001 to ₦ 100,000	100	129.71			
	₦ 100,001 to ₦ 150,000	77	137.65			
	>₦150,000	25	116.71			
Occupation	Civil (Public) Service	109	169.09	7.247	2	0.025*
	Private/Corporate Service	98	173.98			
	Students	151	159.51			

*Significant at 0.05; *p* Value = Significance value; ₦ = Naira (symbol of Nigerian unit of currency), F = Frequency; Df = Degree of freedom

A significant difference of PSQ in online shopping exists in consumers' gender and marital status categories within all the four dimensions as follows. In access dimension, a significant difference of PSQ in e-shopping exists within consumers' gender and marital status categories; in reliability dimension, a significant difference of PSQ in online shopping exists within only gender categories; in EoU&A, a significant difference of PSQ in e-shopping exists within both gender and marital status; in S&C dimension, no significant difference of PSQ in online shopping was discovered within either of gender or marital status as shown in Table 6.

Table 6
Results of difference of PSQ in online shopping within gender and marital status categories involving each of the four dimensions of the scale (n = 358)

The Dimensions of the Scale	Statistics	Gender		Marital Status	
		Male	Female	Married	Single
Access	*N*	201	157	111	247
	Mean Status	155.15	153.73	147.35	156.68
	Sum of Statuses	26064.50	21521.50	10609.50	36976.50
	Mann-Whitney U	11651.500		7981.500	
	Wilcoxon W	21521.500		10609.500	
	Z	-0.140		-0.782	
	Asymp. Sig. (2-tailed)	0.033*		0.041*	

Table 6 *(continue)*

The Dimensions of the Scale	Statistics	Gender		Marital Status	
		Male	Female	Married	Single
Access	*N*	201	157	111	247
	Mean Status	155.15	153.73	147.35	156.68
	Sum of Statuses	26064.50	21521.50	10609.50	36976.50
	Mann-Whitney U	11651.500		7981.500	
	Wilcoxon W	21521.500		10609.500	
	Z	-0.140		-0.782	
	Asymp. Sig. (2-tailed)	0.033*		0.041*	
Reliability	N	201	157	111	247
	Mean	157.71	150.65	163.22	151.84
	Sum of Statuses	26495.50	21090.50	11751.50	35834.50
	Mann-Whitney U	11220.500		7868.500	
	Wilcoxon W	21090.500		35834.500	
	Z	-0.698		-0.954	
	Asymp. Sig. (2-ailed)	0.001*		0.340	
EoU&A	N	201	157	111	247
	Mean Status	156.34	152.29	149.27	156.10
	Sum of Statuses	26265.50	21320.50	10747.50	36838.50
	Mann-Whitney U	11450.500		8119.500	
	Wilcoxon W	21320.500		10747.500	
	Z	-0.401		-0.574	
	Asymp. Sig. (2-ailed)	0.001*		0.050*	
S&C	N	201	157	111	247
	Mean Status	157.53	150.86	155.13	154.31
	Sum of Statuses	26465.50	21120.50	11169.00	36417.00
	Mann-Whitney U	11250.500		8451.000	
	Wilcoxon W	21120.500		36417.000	
	Z	-0.660		-0.069	
	Asymp. Sig. (2-ailed)	0.509		0.945	

*Significant at 0.05; *N* = Frequency

Post Hoc Test Results

Tables 7 to 9 show the results of the Post Hoc with Kruskal–Wallis (*H* test) analysis for the various categories of the demographic characteristics.

There was a significant difference of PSQ in e-shopping within occupational categories: Private/Corporate service employees and Civil (Public) Service employees involving Reliability and S&C dimensions (with these significance

values, $p = 0.005$, $p = 0.005$, respectively), and between Private/Corporate service employees and Students involving S&C dimension ($p = 0.013$). However, there was no significant difference of PSQ in e-shopping between Private/Corporate service employees and Students within Reliability dimension as well as between Civil (Public) service employees and Students within Reliability and S&C dimensions as shown in Table 7.

In age category, within Access, EoU&A and S&C dimensions no significant difference of PSQ in online shopping within age categories: between two groups of youth (18–24 and 25–32-years old) and between middle-aged (32–38 years) and advanced aged (39–45-year old) was found except for within the latter age categories involving EoU&A dimension ($p = 0.012$). However, significant difference of PSQ in online shopping exists between advance aged (> 45-year old) and youth (18–24-year old) involving EoU&A ($p = 0.003$) and S&C ($p = 0.019$) dimensions as shown in Table 8.

In educational qualification (EQ) categories, within EoU&A, Reliability and S&C dimensions there was no significant difference of PSQ in e-shopping within educational qualification categories: between postgraduate and undergraduate students was found except for within access dimension ($p = 0.001$). Similarly, no significant difference of PSQ in online shopping exists between HND and ND/NCE within access ($p = 0.004$), reliability ($p = 0.016$), and EoU&A ($p = 0.019$) dimensions except within S&C (Table 9).

Table 7
Results of post hoc analysis for difference of PSQ in e-Shopping within occupational categories involving reliability and S&C dimensions

Occupation	Reliability					Security and Credibility				
	F	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value
PS/COS ↔CS	28	128.29	7.262	1	0.005*	28	128.29	7.288	1	0.005*
	173	96.58				173	96.58			
PS/COS↔STU	28	79.04	2.840	1	0.082	28	82.93	5.231	1	0.013*
	107	65.11				107	64.09			
CS↔STU	173	136.34	1.207	1	0.384	173	138.78	.208	1	0.726
	107	147.22				107	143.28			

*Significant at 0.05; *p* Value = Significance value; F = Frequency; Df = Degree of freedom; PS = Private Service; COS = Corporate Service; CS = Civil Service; STU = Students; ↔ = Correlation

Table 8
Results of post hoc analysis for difference of PSQ in e-shopping within age categories involving all the four dimensions

Age Category (in years)	**The Dimensions of the Scale**														
	Access					EoU&A					S&C				
	F	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value
18–24↔	132	165.73	427.81	3	0.676	132	159.83	701.11	5	0.889	132	165.53	421.22	4	0.721
25–31	58	150.74	564.35			58	160.04	814.21			58	150.60	332.18		
32–38↔	59	160.73	321.22	5	0.921	59	160.93	895.23	1	0.012*	59	159.93	235.71	4	0.555
39–45	71	160.29	392.10			71	157.29	755.35			71	160.26	456.96		
>45↔	38	162.36	756.96	1	0.016*	38	155.36	701.11	1	0.003*	38	169.76	281.09	1	0.019*
18–24	132	169.23	781.09			132	158.73	814.21			132	162.43	427.81		

*Significant at 0.05; *p* Value = Significance value; F = Frequency; Df = Degree of freedom; ↔ = Correlation

Table 9
Results of post hoc analysis for difference in PSQ in e-shopping within educational qualification categories involving all the four dimensions

Educational Qualification	The Dimensions of the Scale																			
	Access					Reliability					EoU&A					S&C				
	F	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value	*F*	Mean Rank	χ^2	Df	*p* Value
PG↔UG	47	175.74	727.25	1	0.001*	47	123.83	201.11	5	0.889	47	165.53	421.22	4	0.721	47	145.53	441.20	4	0.721
	79	160.74	764.12	1		79	160.04	514.21			79	150.60	332.18			79	120.30	132.11		
HND↔ND/ NCE	67	160.73	321.22	3	0.322	67	110.73	195.23	3	0.199	67	159.93	235.71	4	0.555	67	165.93	725.71	1	0.005*
	80	160.29	392.10			80	157.29	455.35			80	160.26	456.96			80	160.06	856.06		
SS/COL↔UG	85	162.36	856.96	1	0.004*	85	155.36	701.11	1	0.016*	85	167.77	281.09	1	0.019*	85	229.66	281.09	5	0.555
	47	169.23	781.09			47	158.73	814.21			47	169.23	427.81			47	102.43	127.11		

*Significant at 0.05; p Value = Significance value; F = Frequency; Df = Degree of freedom; PG = Postgraduate; UG = Undergraduate; HND = Higher National Diploma; ND = National Diploma; NCE = National Certificate of Education; SS = Secondary School; COL = College; ↔ = Correlation

DISCUSSION

In the following paragraphs, the details of the findings of this research study are discussed extensively and synthesised with existing literature to provide empirical support to the findings.

A study was performed to determine the difference based on consumers' demographic characteristics (age, gender, educational qualification, marital status, monthly income, and occupation) of PSQ in online shopping involving access to online services, ease of use of online shopping and attentiveness, reliability of online service, security of online transaction environment and credibility of products information contexts. The difference of PSQ in online shopping based on the consumers' six important demographic factors was determined both between and within the various demographic factors' categories involving four dimensions (contexts), namely, access, reliability, ease of use and attentiveness (EoU&A), and security and credibility (S&C). The findings are discussed in the following paragraphs.

Conciselys, the results generally show that a significant difference of PSQ in e-shopping within five of the demographic factors namely age, gender, educational qualification, occupation, and marital status was found except for monthly income, which shows no significant difference of in online shopping involving all the four dimensions (access, reliability, EoU&A, and S&C). Hence, hypotheses H^1, H^2, H^3, H^5 and H^6 were accepted, while H^4 was rejected.

Kruskal–Wallis (*H* test) test (refer to Appendix A) was run to determine the difference in PSQ in online shopping within consumers' age involving Access, EoU&A and S&C dimensions. The finding indicates that a significant difference of PSQ in e-shopping within consumers' age exists involving Access (with a significance value, $H(2) = 7.066$, $p = 0.001$) (Table 2), EoU&A (with a significance value, $H(2) = 7.321$, $p = 0.005$) (refer to Table 4), and S&C (with a significance value, $H(2) = 6.095$, $p = 0.044$) (Table 5). These results clearly show that the data provide statistically significant evidence of the presence of a significant difference of PSQ in online shopping within age categories. Thus, H^1 was accepted.

The significant difference of PSQ within age involving accessing e-shopping services suggests that consumers' age is an important factor that online retail stores should consider when directing product promotion to target customers. The results of the Post Hoc test (Table 9) further indicate a significant difference of PSQ in e-shopping exists between the youngest age group, or the youth (18–24 years old) and the oldest age group, or the advance aged (> 45 years old) pair. As far as age disparity is concerned in relation to PSQ in e-shopping, young Nigerian consumers perceive online shopping service quality differently from older customers. This finding has a very interesting and positive implication on the future of e-shopping in the country, signaling a very bright and auspicious future for online shopping and retailing

especially with the improving Internet coverage, penetration rate and exponentially increasing Internet users (Statista, 2017). This is simply because Nigeria's population has a high percentage of young people as shown in the following population age profile: 0–14 years old: 42.79% (male 40,744,956/female 38,870,303); 15–24 years old: 19.48% (male 18,514,466/female 17,729,351); 25–54 years old: 30.65% (male 29,259,621/female 27,768,368) (Josephson, 2017; CIA World Fact Book, 2017). Therefore, online retailers should prudently manage the resourcefulness of all their customers, especially the youthful, or younger ones. In many previous studies, these groups of consumers form most online stores' patronisers (Ibrahim et al., 2018; Izogo, Nnaemeka, Onuoha & Ezema, 2012; Zhou, Dai, & Zhang, 2007).

Furthermore, a significant difference of PSQ in e-shopping within age categories involving EoU&A dimension was found, which indicates the importance of consumers' perceived benefits, perceived ease of use, and perceived motivation (Venkatesh et al., 2003, 2012) in the use of online retail sites and commercial services. The results of the Post Hoc test indicate a significant difference of PSQ in online shopping exists between the two middle-age group's pair (32–38 and 39–45 years old) as well as the advance aged and the youth age group's pair (> 45 and 18–24 years old). This result suggests that technology-use skills, prior experience, and cognitive motivation in relation to the use of online shopping are the driving factors determining the difference in the influence of age categories on PSQ in e-shopping. Somehow supporting these findings, previous literature suggests that younger online consumers possess higher use skills and deeper use experience (Venkatesh et al., 2012; Yoon & Occena, 2015).

Similarly, a significant difference of PSQ in e-shopping exists within the age categories between the oldest, the youth and the advance aged groups' pair (> 45 and 18–24 years old) involving S&C dimension. Hence, young consumers may have a more positive perception of online retail stores' service and product information quality and secure online transaction environment very differently from older consumers. Generally, young consumers are more likely to have richer online experience than do older consumers (Fang et al., 2016; Venkatesh et al., 2003, 2012).

The findings also show a significant difference of PSQ in online shopping within educational qualification categories involving all four dimensions as follows: access dimension ($H(2) = 7.335$, $p = 0.021$) (refer to Table 2), reliability dimension ($H(2) = 7.124$, $p = 0.017$) (refer to Table 3), EoU&A dimension ($H(2) = 8.393$, $p = 0.044$) (Table 4), and S&C dimension ($H(2) = 8.323$, $p = 0.037$) (Table 5). This shows that the data provide statistical evidence on the existence of a significant difference of PSQ in online shopping within educational qualification categories at all four dimensions. Therefore, H^2 was accepted. The importance of educational qualification in all the dimensions indicates

that academic qualification, which goes along with knowledge and experience (Klopping & McKinney, 2006), is a critical factor shaping individuals' perception of quality, believability, security concerns and ease of use access in relation to shopping in an online platform (Chiu et al., 2014).

Furthermore, Post Hoc test (refer to Appendix B) shows that a significant difference of PSQ in e-shopping exists within postgraduate and undergraduate and within secondary school/college and undergraduate pairs involving access dimension; within secondary school/college and undergraduate pairs involving reliability and EoU&A dimensions as well as within HND and ND/NCE categories involving S&C dimension. These results suggest that education is a critical factor in this context given that education here implies the level and depth of knowledge and life-long experience and age (as implied by educational grade) (Klopping & McKinney, 2006). Hence, online retail stores' management should not take it for granted that all categories of consumers in relation to knowledge, education, and life-long experience perceive their services in the context of accessing their web portals, sales sites, and social media pages in same way. If perchance, there is any way that they could identify the educational, knowledge or life-long experience status of level of their customers, they should follow the "ladies first" rule of thumb, meaning that they should treat the most educated, most knowledgeable, and most life-long-experienced customers a bit superbly different way than customers who possess lesser degree of those qualities. However, by no means should any online store treat its customers who are less educated or have lesser degrees of life-long experience with any measure of inferiority.

A significant difference of PSQ in online shopping was also discovered in consumers' gender involving reliability dimension (with a significance value, $p = 0.001$) (Table 6). Similarly, a significant difference of PSQ in online shopping was found in gender and marital status within access dimension (with significance values, $p = 0.033$ and $p = 0.041$, respectively) (Table 6) and within EoU&A dimension (with significance values, $p = 0.001$ and $p = 0.050$, respectively) (Table 6). This shows that the data provide statistical evidence of the presence of a difference in the influence of consumers' gender and that of marital status on PSQ in online shopping. Therefore, H^3 was accepted. However, no significant difference of PSQ in shopping within age and marital status was found at S&C dimension.

Previous research has demonstrated that gender (Venkatesh et al., 2012) and marital status (Izogo et al., 2012) affect consumers' online behaviour significantly. Although marital status is less often associated with people's online consumption behaviour, some case studies have suggested that marital status affects consumers' online purchase behaviour (Izogo et al., 2012). Online stores should consider investing hugely in the improvement of their services and tailoring same to the consumers' gender difference in relation to making their services accessible online, creating

easy-to-use features (e.g., on their websites) and stuffing their websites, social media profiles, and other entrepreneurial online sits with interesting information and attractive layouts.

This study did not find any significant difference of PSQ in online shopping within consumers' monthly income involving all four dimensions (Tables 2, 3, 4, 5, 6 and Appendices A, B and C). This shows that the data do not provide statistically significant evidence of the existence a difference in the influence of consumers' income on PSQ in e-shopping. All the results indicate a weak (non-significant) difference, which suggests that income does not, or weakly does influence consumers' PSQ regarding online shopping. This is a quite strange finding though. Hence, H^4 was rejected.

This finding implies that income plays a little or no role, neither in consumers' perception of the ease of access and use of e-shopping services nor in security concerns and believability of products and services' information in an online shopping environment, nor in reliability of products information online. In other words, all categories of consumers' income, regardless of level (whether low, moderate or high) perceive the service quality of online retail stores substantially the same. However, this may suggest that income plays the most important role in the actual purchasing of the products and online-related services such as Internet data or Wi-Fi rather than in gaining access to the already-available online retail services or its related services. This finding implies that income is a "leveller," or "flat-rater" as far as online retail shops' service quality perception is involved. Therefore, online retail stores should try as much as possible to improve the quality of the services they render to their customers online regardless of the customers' financial status, income level, or purchase budget.

This study also discovered a significant difference of PSQ in online shopping within marital status involving access and EoU&A dimensions (Table 5). This shows that the data provide statistically significant evidence of a difference in the effect of marital status on consumers' PSQ in online shopping. Hence, H^5 was accepted. The salience of the difference of PSQ in e-shopping within marital status at access and EoU&A dimensions suggests that the variation in lifestyle led by married and single consumers can influence their perceived access to online shopping services as well as their perception of the ease of use associated with online shopping and attentiveness in the shopping environment online. It is gratifying to discover that married and single as well as male and female consumers perceive security and credibility of online shopping in similar ways. This finding is supported in Izogo et al. (2012). Therefore, e-stores' management should consider the marital status of their customers especially where such information would be required.

A significant difference of PSQ in online shopping was also found within consumers' occupation involving Reliability dimension (with a significance value, $H(2) = 9.104$, $p = 0.039$) (Table 3) and involving S&C dimension (with a significance value, H

(2) = 7.247, p = 0.025) (Table 5). This shows that the data provide statistically significant evidence of the presence of a difference in the influence of occupation on PSQ in e-shopping. Hence, H^6 was accepted. The significance of the difference within occupation categories involving reliability and S&C dimensions clearly suggests what trustworthiness of online retail stores' services, cyber-risk-free online shopping environment and believability of online retail stores' information (e.g., firm's location address, duration of ordered products' delivery, products prices, brand, sizes, etc.) do considerably affect consumers overall perception of PSQ of an online store. This is supported in Brengman, Geuens, Wijters, Smith and Swinyard (2005). Therefore, online retail stores' management should invest meaningfully in the improvement of their array of services and tailoring them to the specificity of the employment category of customers.

The Post Hoc test (Appendix C) to determine the difference in PSQ in e-shopping within occupational categories involving Private/Corporate Service employees and Civil (Public) Service employees' pairs with respect to reliability and S&C dimensions was significant, yielding these results: (H (1) = 7.262, p = 0.005) and (H (1) = 7.288, p = 0.005) respectively. A significant difference of PSQ in online shopping was found between private/corporate service employees and students pairs involving S&C dimension (with a significant value, H (1) = 5.231, p = 0.013). However, no significant difference of PSQ in e-shopping involving private/corporate service employees and students within reliability dimension was found. A longitudinal study in online shopping performed by Limayem, Khalifa and Frini (2000) agrees with these findings.

These findings have very important implications especially regarding the implication of consumers based on employment or job category difference involving online retail stores' reliability of product transaction services, credibility of product and enterprise information and, more importantly security of online shopping environment (e.g., online stores' business websites and platforms to be secure from malicious virus and cyber criminals such as hackers). Both categories of consumers (those working with public organisations and those working with private organisations) may have possessed some degrees of the appreciation of the effects of the presence or absence of online service reliability and cyber security issues, especially those of them whose job involves the use of computer and Internet.

CONCLUSION

All the six demographic variables, except for monthly income, show a significant difference of PSQ in e-shopping at various degrees of difference within all the four dimensions. Five hypotheses (H^1, H^2, H^3, H^5 and H^6) are accepted while one hypothesis (H^4) is rejected. However, consumers' age and gender categories show more significant difference of PSQ in e-shopping than does each of marital status, monthly income,

and occupation across all the contexts. In fact, monthly income shows no significant difference of PSQ involving all the four dimensions. Hence, consumers' income level does not, or little does influence their PSQ in e-shopping within all the contexts.

Among the three demographic characteristics with the most significant degree of difference of PSG in online shopping mentioned earlier, a significant difference of PSQ in e-shopping was discovered within educational qualification categories involving all the four dimensions. Particularly, significant difference exists between the highest educational qualification pair group (postgraduate and undergraduate) and between the lowest (secondary school/ college) and undergraduate pair. Specifically, this implies that consumers with higher and lower EQ perceive online shopping service quality differently. Generally, in terms of EQ, this result implies that educated consumers' perception of e-shopping service quality can be affected by their education level; this further implies that their PSQ is not uniform, and needs to be treated with corporate cautious by online stores.

The degree of the difference of PSQ in online shopping involving consumers' age and gender categories is virtually equal, especially within access, EoU&A and S&C dimensions. Difference in PSQ involving EoU&A and S&C is more salient within age and gender categories. This result implies that consumers' age and gender play a significant role in shaping their perception of online service quality within the contexts of gaining access to online market, ease of use (of online shopping applications, e.g., features and websites) as well as secure online shopping milieu and credible products information and reliable services. Since e-shopping involves e-transactions (Falode et al., 2016; Salimon, Yusoff, & Mokhtar, 2016) such as online payments, naturally online consumers would be concerned with the safety of their money and the security of credit cards' passwords. Hence, online stores need to invest heavily in the security of their online business sites, which ultimately translates into the security of their customers' online transactions.

The findings of this study have indicated that income does not, or weakly does influence consumers' PSQ, implying that online consumer services are treated in the same way by consumers of all categories of income. Furthermore, doing online shopping may certainly involve money (e.g., for purchasing products); but intrinsically, doing online shopping is blind to consumers' income category or level.

The finding that shows marital status has a significant difference of PSQ in online shopping involving access and EoU&A contexts implies that married and single consumers perceive online shopping service quality differently in terms of accessing online retail services, ease of use of online shopping features, and attractiveness of the online shopping platforms, which obviously could be due to difference in the lifestyle and responsibilities of married and single individuals in Nigeria (Izogo et al.,

2012). Single consumers are more likely to have ample leisure time to access online services and surf the web than are married individuals.

Similarly, the significant difference of PSQ in e-shopping within occupational categories is salient only in the contexts of reliability and S&C. The security of online transactions environments and credibility of products information online cannot be overemphasised, so is trustworthiness (reliability) of the services the online retail stores render to customers. However, the difference of PSQ in e-shopping involving reliability context is only significantly within consumers' occupational categories. Private/corporate employees perceive service quality differently from civil/public servants, so do private/corporate employees and students. However, civil/public servants perceive service quality equally with students. This result implies that private/corporate employees are more likely to purchase products/services online more than either civil/public servants or students are. One of the key reasons may be because in Nigeria, employees of private/corporate organisations usually earn better emoluments than do those working in public organisations (Chiejina & Olamide, 2014; NITDA, 2016).

Implications

These results have four implications. First, for online stores to make gains and succeed in e-business, they need to improve the access features of their business websites and social media pages, for example, by making the features in their websites more user-friendly, improving and regularly updating the security features in their websites and living up to the expectations of consumers in line with current, best global practices. Second, online retail stores need to invest meaningfully in adding value to their products and improving the quality of their services based on consumer-specificity, especially regarding age, gender, and educational qualification.

Generally, however, online stores need to treat the entire categories of their customers with the utmost esteem, in line with the best trends in practice. Thus, providing features in their websites and other online entrepreneurial portals and platforms that would require prospective customers to sign up with their demographic particulars such as gender, age/date of birth, profession/occupation, educational qualification, or online use experience, marital status and even range of monthly income can go a long way in providing them with useful customers' demographic data which can help them tailor their services to the specificity of their customers. Third, online stores need to identify their target markets/audiences and understand their occupational characteristics. Fourth, Nigeria is the most populous country in Africa, the largest economy and one of the countries with highest Internet penetration rates in the continent (Africa Ranking, 2016; FOTN, 2015). Hence, online retailers stand a great chance of making huge profits from the market because of the economy of scale provided they upgrade their services to

global standards regularly, paying critical attention to market environment differences and consumer-specificity.

Recommendations

This study recommends that online retailers should regard their customers' age and gender, especially regarding designing of home page websites, customers' e-shopping profiling and other virtual market platforms such as social networking sites pan pages. It is, however, of paramount importance for online stores to ensure that their business websites and platforms (portals) are cyber-secure and firewalled against any kind of cyber threats. Online stores should also put their online customers' educational background into consideration, especially when targeting consumer groups.

Online retailers should articulate their online business strategies by focusing on customer-group-specifics, that is, they should focus on dealing in products, providing credible product information, rendering reliable services, and displaying their business websites with meaningfully appealing outlays and user-friendly features. They should also treat with superior regarding the age, gender, educational level, and occupational/professional categories of their customers. Given that this study has discovered that consumers' monthly income levels are substantially blind to difference in PSQ, online stores need not tailor their services to the income level of their customers—customers of any category or level of income want, need and deserve esteem treatment and best services.

Furthermore, this study recommends that future research should determine whether consumers' fields of study influence their PSQ. Given that gender has been important in this study, future research should determine the category of customers based on gender that would be more likely to make online shopping based on perceived product quality (PPQ), perceived transaction site security (PTSS), perceived trust (PT), and displayed product price (DPP). Similarly, future research should determine which group of either married or single consumers would be more likely make online shopping based on those factors. Future research should also provide further understanding about whether persons with dependents, persons without dependents, or persons dependent on others would be more likely to make online shopping based on the above-mentioned factors. Finally, this study recommends that future research should adopt a different methodology, for example, regression analysis and determine the statistical relationship between the demographic variables and PSQ, intention to use online shopping website and/or adoption of online shopping.

REFERENCES

Africa Ranking. (2016). *Top 20 largest economies in Africa*. Retrieved September 20, 2016, from http://www.africaranking.com/largest-economies-in-africa/

Aminu, S. A. (2013). Challenges militating against adoption of online shopping in retail industry

As of the time of this writing, the US-Dollar to Naira exchange rate is rallying around $1 = ₦360

in Nigeria. *Journal of Marketing Management, 1*(1), 23–33.

Babbie, E. (2010). *The practice of social research*. New York, NY: Wadsworth Cengage Learning. International Edition.

Barrera, R. B., García, A. N., & Moreno, M. R. (2014). Evaluation of the e-service quality in service encounters with incidents: Differences according to the socio-demographic profile of the online consumer. *Revista Europea de Dirección Y Economía de La Empresa*, *23*(4), 184–193.

Birkin, M., Clarke, G., & Clarke, M. (2002). *Retail geography and intelligent network planning*. Chictster, UK: Wiley.

Brengman, M., Geuens, M., Wijters, B., Smith, S. M., & Swinyard, W. R. (2005). Segmenting Internet shoppers based on their web-usage-related lifestyle: A cross-cultural validation. *Journal of Business Research*, *58*, 79–88.

Business Directory. (2016). *Marketing strategy.* Retrieved January 23, 2016, from http://www.businessdirectory.com/definition/marketing-strategy.html on 23 January 2016.

Cai, S., & Jun, M. (2003). Internet users' perceptions of online service quality: a comparison of online buyers and information searchers. *Managing Service Quality*, *13*(6), 504–519.

Chang, J., & Samuel, N. (2006). Why purchase online? An empirical study of Australian internet shoppers. *Studies in Business and Economics*, *12*(1), 69–79.

Chen, S., & Macredie, R. (2010). Web-based interaction: A review of three important human factors. *International Journal of Information Management*, *30*(5), 379–387.

Chiejina, C., & Olamide, S. E. (2014). Investigating the significance of the 'pay on delivery' option in the emerging prosperity of the Nigerian e-commerce sector. *Journal of Marketing and Management*, *5*(1), 120–135.

Chiu, C., Wang, E., Fang, Y., & Huang, H. (2014). Understanding customers' repeat purchase intentions in B2B ecommerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, *24*, 85–114.

Chukwu, B. I., & Uzoma, I. C. (2014). Impact of social media networks on consumer patronage in Nigeria: A study of Jumia and Konga Nigeria Limited. *European Journal of Business and Management, 6*(30), 63–70.

Cochran, W. G. (1977). *Sampling techniques. 98,* 259-261. New York, NY: Wiley and Sons.

Conover, W. J. (1999). *Practical nonparametric statistics* (3rd ed.). New York, NY: Wiley.

Cowart, K. O., & Goldsmith, R. E. (2007). The influence of consumer decision-making styles on online apparel consumption by college students. *International Journal of Consumer Studies, 31*(6), 639–647.

Demsar, J. (2006). Statistical comparisons of classifiers over multiple data sets. *Journal of Machine Learning research, 7*, 1–30.

Doostar, M., Akbari, M., & Abbasi, R. (2013). Impact of demographic characteristics on relationship between customers' perceived service quality and websites' services in electronic markets. *International Research Journal of Applied and Basic Sciences*, *5*(5), 530–537.

Edvardsen, B., Tomasson, B., & Ovretveit, J. (1994). *Quality of service: Making it really work*. New York, NY: McGraw-Hill.

Falode, B. O., Amubode, A. A., Adegunwa, M. O., & Ogunduyile, S. R. (2016). Online and offline shopping motivation of apparel consumers in Ibadan metropolis, Nigeria. *International Journal of Marketing Studies*, *8*(1), 150–160.

Fang, J., Wen, C., George, B., & Prybutok, V. R. (2016). Consumer heterogeneity, perceived value and re-purchase decision-making in online shopping: The role of gender, age and shopping

motives. *Journal of Electronic Commerce Research*, *17*(2), 116–131.

FOTN. (2015). *Freedom on the net report 2015: Nigeria*. Retrieved February 1, 2016, from https://freedomhouse.org/report/freedom-net/2015/nigeria

Francis, J. E. (2005). Internet retailing quality: A conceptual perspective. In S. Purchase (Eds.), *Proceedings of the Australian and New Zealand Marketing Academy Conference* (pp. 64-72). Fremantle, Australia: Australian and New Zealand Marketing Academy.

Ganesan-Lim, C., Russell-Bennett, R., & Dagger, T. (2008). The impact of service contact type and demographic characteristics on service quality perceptions. *Journal of Services Marketing*, *22*(7), 550–561.

Goldsmith, R. E., & Bridges, E. (2000). E-tailing versus retailing: Using attitudes to predict online buying behaviour. *Quarterly Journal of Electronic Commerce, 1,* 245–253.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis*. Englewood Cliff, NJ: Pearson Prentice Hall.

Ibrahim, A. M., Hassan, M. S., Usman-Buni, J., & Dahiru, A. S. (2015). Factors affecting adoption of e-shopping among Nigerian students: Conceptual framework. *Journal of Research on Humanities and Social Sciences, 5*(13), 75–92.

Ibrahim, A. M. , Hassan, M. S. H., & Yusuf, S. (2018). Factors Determining E-Shopping Compliance by Nigerians. In *Encyclopedia of Information Science and Technology, Fourth Edition* (pp. 2761-2772). Hershey, PA: IGI Global.

Ilias, A., Hasan, H. F. A., & Rahman, R. A. (2009). Student satisfaction and service quality: Any differences in demographic factors? *Inernational Business Research*, *1*(4), 131–143.

Internet World Stats. (2017). *Use and population statistics: Africa: Nigeria Internet and telecommunications reports*. Retrieved September 6, 2017, from http://www.internetworldstats.com/africa.html

Izogo, E. E., Nnaemeka, O. C., Onuoha, A. O., & Ezema, K. S. (2012). Impact of demographic variables on consumers' adoption of e-banking in Nigeria: An empirical investigation. *European Journal of Business and Management*, *4*(17), 27–39.

Jun, M., Yang, Z., & Kim, D. (2004). Customers' perceptions of online retailing service quality and their satisfaction. *International Journal of Quality & Reliability Management*, *21*(8), 817–840.

Kaiser, H. F., & Rice, J. (1974). Little Jiffy, Mark IV. *Educational and Psychological Measurement*, *34*, 111–117.

Kalia, P., Singh, T., & Kaur, N. (2016). An empirical study of online shoppers' search behaviour with respect to sources of information in Northern India. *Productivity: A Quarterly Journal of the National Productivity Council*, *56*(4), 353–361.

Kaplan, A., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizon, 53*(1), 59–68.

Kenny, D. A. (2014). *Measuring model fit*. Retrieved August 28, 2015, from http://davidakenny.net/cm/fit.htm#RMSEA

Kenny, D. A., Kaniskan, B., & McCoach, D. B. (2015). The performance of RMSEA in models with small degrees of freedom. *Sociological Methods & Research*, *44*(3), 486-507.

Kietzmann, J. H., & Hermskens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, *54*, 241–251.

Kim, E. Y., & Kim, Y.-K. (2004) Predicting online purchase intentions for clothing products. *European Journal of Marketing, 38*(7), 883–897.

Kim, S. & Stoel, L. (2004). Apparel retailers: Website quality dimensions and satisfaction. *Journal of Retailing and Consumer Services*, *11*(2), 109–117.

Klopping, I. M., & McKinney, E. (2006). Practice makes a difference: Experience and ***e***-commerce. *Information Technology Learning and Performance Journal, 24*(1), 25–37.

Korgaonkar, P. K., & Wolin, L. D. (1999). A multivariate analysis of web usage. *Journal of Advertising Research, 39,* 53–69.

Kumbhar, V. M. (2011). Factors affecting the customer satisfaction in e-banking: Some evidence from Indian banks. *Management Research and Practice*, *34*(4), 1–4.

Lastovicka, J. L. (1982). On the validation of lifestyle traits: A review and illustration. *Journal of Marketing Research, 19,* 126–138.

Lewis, B. R., & Mitchell, V. W. (1990). Defining and measuring the quality of customer service. *Marketing Intelligence & Planning, 8*(6), 11–17.

Lian, J., & Yen, D. (2014). Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in Human Behaviour*, *37*, 133–143.

Limayem, M., Khalifa, M., & Frini, A. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. *IEEE Transactions on Systems, Man and Cybernetics-Part A: Systems and Humans*, *30*(4), 421–432.

Ling, K. C., Chai, L. T., & Piew, T. H. (2010). The effects of shopping orientations, online trust and prior online purchase experience toward customers' online purchase intention. *International Business Research, 3*(3), 63–76.

Logan, K. (2014). Why isn't everyone doing it? A comparison of antecedents to following brands on Twitter and Facebook. *Journal of Interactive Advertising, 14*(2), 60–72.

Long, M., & McMellon, C. (2004). Exploring the determinants of retail service quality on the Internet. *Journal of Services Marketing*, *18*(1), 78–90.

Malhotra, N. K. (2004). *Marketing research: An applied orientation.* Upper Saddle River, NJ: Prentice-Hall.

Malhotra, N. K., & Birks, D. F. (2007). *Marketing research: An applied approach*. London, UK: Pearson Education.

Marchiniak, R., & Bruce, M. (2004). Identification of UK fashion retailer use of web sites. *International Journal of Retail & Distribution Management, 32*(7), 386–393.

Maynes, E. S. (1976). *Decision-making for consumers: An introduction to consumer economics*. New York, NY: Macmillan.

Merrilees, B., & Miller, D. (2005). Emotional brand associations: A new KPI for e-retailers. *International Journal of Internet Marketing and Advertising, 2*(3), 206–218.

Min, S., & Khoon, C. C. (2013). Demographic factors in the evaluation of service quality in higher education: International student's perspectives. *International Review of Management and Business Research*, *2*(4), 994–1010.

Monsuwe, T. P., Dellaert, G. C. B., & Ruyter, K. (2004). What drives consumers to shop online? A literature review. *International Journal of Service Industry Management, 1*(1), 102–121.

Moschis, G. P. (1976). Social comparison and informal group influence. *Journal of Marketing Research, 13,* 237–244.

National Information Technology Development Agency (NITDA). (2016). *E-Nigeria 2016*. Retrieved on 22 September, 2016, from http://www.nitda.gov.ng/event/e-nigeria-2016-2/ .

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, *64*(1), 12–40.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1986) SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality. *Report No. 86-108*, Marketing Science Institute, Cambridge, MA.

Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implication. *Journal of Marketing, 49*, 41–50.

Parasuraman, A., Zeithaml, V. A., & Malhotra, A. (2005). E-S-QUAL: A multiple-item scale for assessing electronic service quality. *Journal of Service Research*, *7*(10), 1–21.

Park, J., & Stoel, L. (2005). Effect of brand familiarity, experience and information on online apparel purchase. *International Journal of Retail & Distribution Management, 33*(2), 148–160.

Phang, C. W., Kankanhalli, A., Ramakrishnan, K., & Raman, K. S. (2010). Customers' preference of online store visit strategies: An investigation of demographic variables. *European Journal of Information Systems*, *19*(3), 344–358.

Pretorios, A. (2010). Factors that contribute towards improving learning effectiveness using a specific learning management system (LMS) at the military academy (MA): A demonstration. *Campus-wide Information Systems*, *27*(5), 318–340.

Reuters. (2015). 'Facebook rakes in users in Nigeria and Kenya, eyes rest of Africa.' *Reuters*, September 10. Retrieved on 12 September, 2016, from https://www.reuters.com/article/us-facebook-africa/facebook-rakes-in-users-in-nigeria-and-kenya-eyes-rest-of-africa-idUSKCN0RA17L20150910.

Robinson, S. (1999). Measuring service quality: Current thinking and future requirements. *Marketing Intelligence & Planning*, *17*(1), 21–32.

Rowley, J. (2009). Online branding strategies of UK fashion retailers. *Internet Research, 19*(3), 348–369.

Salimon, M. G., Yusoff, R. Z., & Mokhtar, S. S. M. (2016). The influence of e-satisfaction, e-trust and hedonic motivation on the adoption of e-banking and its determinants in Nigeria: A pilot study. *Mediterranean Journal of Social Sciences*, *7*(1), 54–63.

Salmeron, J. L., & Hurtado, J. M. (2006). Modelling the reasons to establish B2C in the fashion industry. *Technovation, 26*(7), 865–872.

SanchezPerez, M., Sanchez-Pernandez, R., Marin-Carrillo, G., & Gazquez-Abad, J. C. (2007). Service Quality in Public Services as a Segmentation Variable. *The Service Industries Journal*, *27*(4), 355–369.

Sekaran, U. (2003). *Research methods for business: A skill building approach.* New York, NY: Wiley.

Siddiqui, N., O'Malley, A., McColl, J. C., & Birtwistle, G. (2003). Retailer and consumer perceptions of online fashion retailers: Web site design issues. *Journal of Fashion Marketing and Management, 7*(4), 345–355.

Sproles, G. B. (1985). From perfectionism to faddism: Measuring consumers' decision-making styles. *Proceedings of American Council on Consumer Interests, 31,* 79–85.

Van Iwaarden, J., van der Wiele, T., Ball, L., & Millen, R. (2003). Applying SERVQUAL to web sites: An exploratory study. *International Journal of Quality & Reliability Management, 20*(8), 919–935.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425–478.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly, 36*(1), 157–178.

Vrechopoulos, A. P., Siomkos, G. J., & Doukidis, G. I. (2001). Internet shopping adoption by Greek consumers. *European Journal of Innovation Management*, *4*(3), 142–153.

Westbrook, R. A., & Black, W. C. (1985). *A Motivation-based shopper typology. The Journal of Retailing, 61,* 78–103.

Wisniewski, M. (2001). Using SERVQUAL to assess customer satisfaction with public sector services. *Managing Service Quality*, *11*(6), 380–388.

Wu, L., Chen, K., Chen, P., & Cheng, S. (2014). Perceived value, transaction cost and re-purchase intention in online shopping: A relational exchange perspective. *Journal of Business Research*, *67*, 2768–2776.

Yoon, H., & Occena, L. (2015). Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age. *International Journal of Information Management*, *35*(3), 352–363.

Zhou, L., Dai, L., & Zhang, D. (2007). Online shopping acceptance model: A critical survey of consumer factors in online shopping. *Journal of Electronic Commerce Research*, *8*(1), 41–62.

Zhou, Z., Jin, X., & Fang, F. (2014). Moderating role of gender in the relationships between perceived benefits and satisfaction in social virtual world continuance. *Decision Support Systems*, *65*, 69–79.