# Understanding the Linkages and Impact of Purchaser Perception of Sales Service Quality in Relation to Innovation Diffusion in Nigerian Internet Shopping

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## ABSTRACT

While the internet offers tremendous innovative communication diffusion opportunities, it also offers some of the innovative ways of purchasing and retailing products and services. There are mounting empirical and conceptual evidences on the benefits and potentials of the diffusion of online shopping in Nigeria. However, limited attention is devoted to investigating the links and influences of customers' sociographic characteristics on their perception of sales service quality in the increasingly diffusing innovative internet shopping in the country. Addressing this gap in the literature, this study examined the effect of gender, age, educational background, marital status, income and occupation on perceived sales service quality of innovative internet shopping among 400 customers who had shopped online at least once in the previous three months. Using a purposive sampling, a questionnaire designed from a scale developed by Jun, Yang and Kim (2004) was employed and analysed the data using factor analysis. The hypotheses were tested using Kruskal-Wallis (H-test) and Mann-Whitney U tests to determine the degree of the differences of the effect among the demographics and the findings revealed that age and educational qualification and gender and marital status variously differed significantly across most of the constructs except for monthly income. Results of the study highlight the importance of sociographic characteristics in influencing customers' perception of innovative internet shopping.

**Keywords**: *Customers, Innovation diffusion, Internet shopping, Online shopping, Perceived sales service quality*

## INTRODUCTION

Internet shopping is increasingly becoming acceptable among customers with heterogeneous sociographic backgrounds, namely age, gender, education, income, marital status and occupation. Internet shopping is one of the innovations in the 21st Century that has been facilitated by the rapid new information and communication technology (ICT) development (Chukwu & Uzoma, 2014). The diffusion of the innovative technology has been more rapid and very successful in developed countries. Next in the hierarchy of readiness and acceptance of the technology innovation are many of the growing or emerging economies such as Brazil, China and Malaysia. Because internet shopping, as the name suggeets is mainly electronic/ digital and internet-dependent, it diffusion in most of the not-so-rich countries especially those in Sub-Saharan Africa like Cameroon, Ghana, Nigeria and Zimbabwe is slower (Njoh, 2017).

In the last one decade, online shopping was considered a novel phenomenon in Nigeria, hence, largely, it was seen as the exclusive preserve of the affluent people in the society. Only, in very recent years, with the relative improvement in internet penetration, relative accessibility and affordability as well as the ubiquity of mobile technology that many Nigerian (mainly the working, middle-class and the well-off millennials) began to appreciate the gains of internet shopping (Ibrahim, Hassan & Yusuf, 2018).

Many online retail stores have realised the acceptability of the new, online retail services to customers and its increasing profitability (Chukwu & Uzoma, 2014). However, the literature reveals that management of many online retail firms have raised concerns that their online customers' patterns of shopping differ markedly along age, gender and financial status (income) lines. Similarly, many other such retail firms that were surveyed in a previous studies (Folade, Amubode, Adegunwa & Ogunduyile, 2016; Ibrahim *et al*., 2018) indicated that the educational background and marital status of their online customers seemed to influence their online shopping behaviour. These scenarios seem to suggest that customers' perceive the quality of the sales service rendered by online stores based on demographic differences (Folade *et al*., 2016). Customers' sociographic characteristics are considered as critical factors in enterprise information systems (EIS) management, especially in enterprise resource planning (ERP) (Chen & Macredie, 2010; Folade *et al*., 2016). Hence, the urge for an empirical investigation to be conducted to determine the influence of demographic characteristics on customers' perceived sales service quality.

Perceived sales service quality is one of the key constructs and fundamental factors in business-to-consumers (B2C) online retail transactions (Wu, Chen, Chen & Cheng, 2014). It is a critical factor influencing customers'' purchase behaviour in internet shopping contexts (Chiu *et al*., 2014). The perceived sales service quality analysis of an online enterprise is a critical factor that can enhance its market reach, operational efficiency (Logan, 2014) and online transaction (business) systems management (Folade *et al*., 2016). Customers' perceived sales service quality analysis also provides online retail firms with the opportunity to overcome the limitations of size, customer reach and compete more effectively with large, conventional (offline) retail enterprises (Kaplan & Haenlein, 2010; Kietzmann, Hermkerns, McCarthy & Silvestre, 2011).

Therefore, it is crucial to determine the factors influencing customers' perception of quality in sales service delivery and products purchase contexts. Wu *et al*. (2014) found that there is a relationship between perceived sales service quality and customers' human factors (sociographic) attributes such as age, gender, income and educational background. Past studies suggest that as male and customers may have different products and services

need structures and models when shopping online, so are young and aged (older) and employed and unemployed customers (Fang, Wen, George & Prybutok, 2016; Kietzmann *et al*., 2011). These groups of customers may react to the same quality differently, thus resulting in differences in their expected services and products quality which, according to Fang *et al*. (2016) and Wu *et al*. (2014) can affect purchase intention and behaviour.

Furthermore, customers' perception is a critical factor that drives online retailing (Ganesan-Lim, Russell-Bennett & Dagger, 2008). Customers' perception of products and sales services quality has been found to vary significantly among customers of different human factors (Sanchez-Perez, Sanchez-Pernandez, Marin-Carrillo & Gazquez-Abad, 2007; Yoon & Occena, 2015). It can also lead to difference in customer satisfaction and future behaviour (Kalia, Singh & Kaur, 2016; Lian & Yen, 2014).

This study contributes to the online retail literature in three perspectives. First, given that the systematic understanding of the impact of demographic characteristics on perceived sales service quality in an internet commerce context is less empirically established in Nigeria (see Chukwu & Uzoma, 2014; Folade *et al*., 2016), it is theoretically meaningful to investigate this issue in an online retailing context. Second, this study determined 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 sociographic characteristics on perceived sales service quality in an online retail context. Third, the findings of this study can serve as a background empirical information source to the more established and advanced online retail industries in emerging economies uch as Malaysia, Singapore, China, India and Brazil about the online purchase intention and behaviour patterns of Nigerian communities there, who often visit those countries as education, medical, leisure or business tourists.

Although there is abundant literature on the effect of perceived sales service quality on customers' acceptance of online shopping, there is a literature gap in the analysis of customers' sociographic attributes impacting perceived sales quality in Nigerian internet shopping. Hence, this study was performed because of the urge to determine differences in the perception of sales service quality based on six sociographic characteristics: age, education, gender, income, marital status and occupation in internet shopping. A clear understanding of the differences of perception of these demographic characteristics in internet shopping can provide online retail stores with the valid data to develop strategies for managing not only e-commerce business-to-consumers (B2C), but also business-to-business (B2B) information systems and business growth. This paper continues in the next section with a review of literature, related theories and hypotheses, followed by a discussion of methodology. Next is a presentation of results and discussion. The last section of this paper, conclusion remarks comes next.

## LITERATURE REVIEW

Internet 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 indicates that an online enterprise requires the use of a website, where the selling and purchasing of products and services takes place in an internet-enabled environment devoid of physical contact between the seller and buyer (Aminu, 2013; Ling *et al*., 2010). However, to attract and retain customers, online stores must design and promote user-friendly websites. In addition,

they (especially medium and large online stores) must ensure that customers get values for their money, since ultimately the main goal of online shopping is to provide a platform for customers to make exchange of goods and services with retailers via the internet (Aminu, 2013).

Several models of the diffusion of innovations and buying process have been developed among which the innovation diffusion model developed by Rogers (2003) and service quality (SERVQUAL) model developed by Parasuraman, Zeithaml and Berry (1988) are regarded as key models. Internet shopping has several connotations, which are used interchangeably. These connotations include electronic shopping, e-shopping and web shopping (Aminu, 2013). Internet shopping is defined as a single, homogenous activity, the selling of goods and services via the World Wide Web (www) (Birkin, Clarke & Clarke, 2002). Monsuwe, Dellaert and Ruyter (2004) defined internet shopping as the usage of online stores by customers up until the transactional stage of purchasing and logistics.

## Related Theories

### *The Innovation Diffusion Model*

The innovation diffusion model was developed by Rogers (2003). The model is adjudged one of the most appropriate for investigating issues surrounding the adoption of technology in social contexts, e.g., internet adoption in business (e-commerce), internet adoption in retail (e-tail/e-shopping), internet adoption in education (e-learning) etc. (Medlin, 2001; Parisot, 1995). Rogers defined technology as "a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome" (p. 13) while adoption, according to him, is a decision of "full use of an innovation as the best course of action available" (p. 177). Rogers defined diffusion as "the process in which an innovation is communicated thorough certain channels over time among the members of a social system" (p. 5). The model's four key constructs (innovation, communication channels, time and social system) are deduced from this definition. Innovation adoption involves a complex process which Rogers described as "an information-seeking and information-processing activity, where an individual is motivated to reduce uncertainty about the advantages and disadvantages of an innovation" (p. 172). This process involves five steps, namely knowledge, persuasion, decision, implementation and confirmation. According to Rogers, these stages usually follow each other in a time-regulated manner.

### *The Service Quality (SERVQUAL) Model*

Service quality (SERVQUAL) has been described as a key marketing strategy in an e-commerce context (Parasuraman, Zeithamal & Malhotra, 2005; Parasuraman *et al*., 1988). Service quality is a concept that has aroused much interest in the online marketing research literature because of the difficulties in defining and measuring it (Wisniewski, 2001). Service quality has been defined as the extent to which a service meets customers' needs or expectations. Furthermore, service quality is the difference between customer expectations of a service and perceived sales service (Parasuraman *et al*., 1988). The concept suggests that if expectations are greater than performance, then perceived sales service quality is less than satisfactory. Hence, customer dissatisfaction occurs (Parasuraman *et al*. 1988). Analysing service quality creates room for comparison between pre- and post-service changes regarding the location of quality-related problems and for the establishment of clear standards for service delivery (Lewis & Mitchell,

1990). Edvardsen, Tomasson and Ovretveit (1994) and Robinson (1999) argued that analysis and measurement are the beginning of developing quality in service delivery.

The SERVQUAL instrument has been acclaimed the predominant method used to measure customers' perceptions of sales service delivery quality and has five dimensions, namely tangibles, reliability, responsiveness, assurance and empathy (van Iwaarden, van der Wiele, Ball & Millen, 2003). The model was subsequently refined by Parasuraman, Zeithamal and Malhotra (2005) and is adopted in the determining of online service quality (e-SERVQUAL). Parasuraman *et al*. (2005) defined e-service quality as the extent to which an enterprise's website facilitates efficient and effective products shopping, purchasing and delivery service for customers. 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 (see Parasuraman *et al*., 2005).

## Influence of Demographic Attributes in Perceived Sales Service Quality

A research study performed on electronic banking or e-banking by Kumbhar (2011) has found that perceived sales service quality, perceived value from e-banking services and overall satisfaction in banking differ by customers' age group. Ganesan-Lim *et al*. (2008) found that customers' age affects service quality perceptions. Barrera, Garcia and Moreno (2014) discovered that customers under 24 years old perceive a better service quality than those over 24 years old. The findings of a study conducted by Chang and Samuel (2006) reveal that the age of online shoppers who are motivated to purchase products online vary: that middle-aged customers (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) found that online customers' age fall within 24 to 44-years old age group. A study on website satisfaction suggests that the observed difference in overall website satisfaction across age groups supports the notion that on average, younger internet users are more satisfied with websites (Pretorios & Smith, 2010). However, Min and Khoon (2013) discovered that age factor does not make any significant difference in the critical elements of service quality evaluation.

Past research has linked customers' online purchase behaviour, particularly products and services quality perception to the customers' educational background. A study conducted by Kalia *et al*. (2016) found that online product customers are well-educated, open-minded, cosmopolitan, less-resistant to change, self-confident and venturesome. Vrechopoulos *et al*. (2001) identified internet shoppers as mostly university undergraduates and postgraduates, while Min and Khoon (2013) empirically determined that the educational qualification of individual online users influences their service quality perceptions. Similarly, Kumbhar (2011) empirically discovered that there is a difference in the level of education between perceived sales service quality, perceived value from e-banking services and overall satisfaction in e-banking. However, a study performed by Barrera *et al*. (2014) has found that customers without a university degree qualification have a favourable perception of quality services than those with a university degree.

Gender has been identified as one of the critical demographical factors that determine individuals' online perceptions and behaviours (Venkatesh, Morris, Davis & Davis, 2003) and affects customers' evaluation of service quality (Min & Khoon, 2013). In a research study conducted on online customers' perception of e-shopping service quality, Kalia *et al*. (2016)

suggests that online customers tend 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) has linked female customers with expressing greater overall website satisfaction.

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*.'s (2001) finding that online shoppers are mostly male contradicts Barrera *et al*.'s (2014) finding. Moreover, Doostar, Akbari and Abasi (2013) found that gender moderates the relationship between usefulness, enjoyment, external characteristics and reliability. However, Ganesan-Lim *et al*. (2008), Ilias, Hassan and Rahman (2009) and Kumbhar (2011) discovered that there is no difference in service quality of customers based on gender.

As one of the key demographic attributes, income has been found to influence online customers' perceptions and behaviours (Sanchez-Perez *et al*., 2007) like other sociographic factors such as age and gender (Venkatesh *et al*., 2003). Kalia *et al*.'s (2016) research study has found that the average monthly household disposable income of online purchasers is higher. Vrechopoulos *et al*. (2001) supports this finding. Chang and Samuel's (2006) finding indicates that middle-income-earning customers tend 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 perceived sales service quality, perceived value and overall satisfaction (Kumbhar, 2011). Phang, Kankanhalli, Ramakrishnan and Rama (2010) found that there is a difference within income groups, between internet shoppers that adopt website search strategy and those that adopt a hedonic browsing strategy.

Although marital status is one of the key demographic characteristics, it is less widely used in research studies (Vrechopoulos *et al*. 2001) as age and gender are, for example. A few previous research studies have investigated the relationship between marital status and service quality. Kalia *et al*. (2016) found that marital status has no significant effect on customers' online service quality perceptions. Doostar *et al*. (2013) underscores the moderating influence of marital status on the relationship between usefulness, enjoyment, external characteristics and reliability. Vrechopoulos *et al*. (2001) discovered that online shoppers are mostly single.

Occupation is one of the critical human factors that are used to determine individuals' online perceptions and behaviours (Venkatesh, Xu & Thong, 2012). Kumbhar (2011) has argued that customers' perceived sales service quality, perceived value and overall satisfaction in e-banking differ based on the customers' profession (occupation). Vrechopoulos *et al*. (2001) asserted that most online shoppers are private employees, scientists or freelancers. Based on the above arguments about the direct links between demographic characteristics and perceived sales service quality, six hypotheses are formulated below.

## HYPOTHESES OF THE STUDY

Six hypotheses were tested in this study; they are as follows:

$H^1$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' age
$H^2$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' educational qualification
$H^3$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' gender
$H^4$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' income
$H^5$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' marital status
$H^6$: Perceived sales service quality in innovative internet shopping differs significantly based on customers' occupation

## MATERIALS AND METHOD

The data were collected using purposive sampling method taking from Babbie (2010) and Malhotra and Birks's (2007) suggestions, which was deemed appropriate for this study given that most of the respondents were dispersed. Cochran's (1977) sampling technique suggested a sample size of 380; researchers rounded it up to 400 because of the adoption of factor analysis (see Babbie 2010).

The participants were drawn from a total population of 78,837 students, public and private employees in a total number of 44 organisations as follows: 50,337 university students in three public universities, University of Abuja, Bayero University Kano and University of Lagos; 25,500 public employees/civil servants in six public organisations (three state and federal government secretariats each); and 3,000 corporate service employees in 35 private/corporate organisations from the three cities (15 banks, 10 mobile telecommunication services organisations, 6 solicitors and advocates firms and 4 internet services firms). Kano and Lagos cities are the commercial hubs of the country while Abuja city is the country's administrative centre and a growing business hub (Business Directory, 2016; FOTN, 2015; NITDA, 2016).

Information on the population of the selected participants was obtained via telephone from the human resources management (HRM) unit of each of the respective organisations and institutions following telephone requests. Given that the questionnaire was administered via an electronic link sent to the respondents' e-mail addresses, their e-mail addresses were also provided by the HRM personnel of the organisations except for the student participants, whose e-mail addresses were obtained from the examinations and records units of their universities. However, of the 151 students (refer to Table 1) that took part in the survey, only 67of them had active e-mail addresses at the time of the survey. Therefore, the remining 84 students that did not have active e-mail addresses were asked to obtain the questionnaire from their colleagues, complete it and upload the completed questionnaire via the same e-mail address.

Taking from Sekaran's (2003) recommendation, 400 cases are 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. The study adopted a 21-item perceived sales service quality scale developed by Jun, Yang & Kim (2004) to gauge the respondents' perception of innovative service quality.

## Scale Reliability and Validity

The research instrument's Cronbach alpha value was very high ( = .93), indicating that the 21-item scale was reliable (see Kaiser & Rice, 1974). Kaiser-Meyer-Olkin (KMO) and Bartlett's tests showed a score of .93 and a p-value of <.001, indicating that the data were suitable for factor analysis. Furthermore, a check of the communality scores of the items indicated that all the items scored values greater than the cut-off point of .30 (Hair, Black, Babin, Anderson & Tatham, 2006).

The factor analysis yielded four strong factors, which collectively explained 59.2% of the total variances in perceived sales service quality. The predictors dimensions in the principal components were determined with varimax rotation. For cleansing of the items in a scale, Hair *et al*. (2006) and Jun *et al*. (2004) suggested a .5 cut-off point for good loadings, and eliminate items with exploratory factor loadings of .5. In this study, all items with exploratory factor loadings of .5 were eliminated from further analysis. Hence, 19 items were retained out of the 21 items. Based on Kenny, Kaniskan and McCoach's (2015) suggestion, this confirms that all the retained items were distinct (mutually exclusive) since ach of them had a factor loading of .5. All the items used to measure the constructs were loaded onto a single factor.

This process yielded four strong factors, namely access (ACS), ease of use and attentiveness (EU&A), reliability (RL) and security and credibility (S&C). The scores of Cronbach alpha coefficient for the four factors extracted were .86, .84, .82 and .77 respectively, which indicates a very good internal consistency reliability. Furthermore, the authors ran a Kolmogrov-Smirnov one-sample test, the result showed that the data needed application of non-parametric tests. Therefore, Mann-Whitney U and Kruskal-Wallis (H-test) were ran based on Conover (1999) and Demsar (2006) recommendations.

## RESULTS

The results showed a significant difference in age and educational qualification constructs within access dimension with the following p-values .001 and .021 respectively (see Table 1). This result indicates customers' perception of innovative internet shopping sales service quality differed regarding access to the internet shopping services based on age and educational levels differences. In other words, younger and older customers perceived sales service quality differently as much as highly educated and less-highly educated customers perceived it differently. Monthly income and occupation showed no significant differences.

**Table 1: Results for Access in Perceived Sales Service Quality of Innovative Internet Shopping (n = 358)**

| Demographic Characteristics Variables of Perceived Sales Service Quality | | Access | | | | |
|---|---|---|---|---|---|---|
| | | F | Mean | 2 | Df | P Value |
| Age | 18 to 24 years old | 132 | 158.34 | 7.066 | 2 | .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 | .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 | N18,001 to N49,000 | 156 | 156.51 | .856 | 4 | .831 |
| | N50,000 to N100,000 | 100 | 160.34 | | | |
| | N100,001 to N150,000 | 77 | 151.55 | | | |
| | N150,000 | 25 | 192.82 | | | |
| Occupation | Civil (Public) Service | 109 | 145.92 | | | |
| | Private/Corporate Service | 98 | 168.38 | .188 | 5 | .567 |
| | Students | 151 | 138.90 | | | |

*Significant at <.05; p-Value = Significance value; N = Naira (Nigerian unit of currency), F = Frequency; Df = Degree of freedom

In the reliability construct educational qualification and occupation showed significant differences in perceived sales service quality of innovative internet shopping (p = .017 and p = .039 respectively) (see Table 2). This result indicates that highly-educated and less-highly educated customers perceived differently sales service quality in innovative internet shopping service quality like employed and unemployed (customers having occupation and those having not) differed significantly in perception of innovative internet shopping sales service quality regarding the online store's sales personnel's reliability.

**Table 2: Results for Reliability in Perceived Sales Service Quality of Innovative Internet Shopping (n = 358)**

| Demographic Characteristics Variables of Perceived Sales Service Quality | | Reliability | | | | |
|---|---|---|---|---|---|---|
| | | F | Mean | 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 | | | |
| 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 | N18,001 to N49,000 | 156 | 135.14 | 6.250 | 4 | .183 |
| | N50,001 to N100,000 | 100 | 158.85 | | | |
| | N100,001 to N150,000 | 77 | 174.43 | | | |
| | N150,000 | 25 | 172.38 | | | |
| Occupation | Civil (Public) Service | 109 | 164.82 | 9.104 | 2 | .039* |
| | Private/Corporate Service | 98 | 154.68 | | | |
| | Students | 151 | 151.50 | | | |

P-Value = Significance value (Significant at <.05); N = Naira (Nigerian unit of currency), F = Frequency; Df = Degree of freedom

Similar to results in the access construct, results for the ease of use and attentiveness construct showed age and educational qualification differed significantly in perception of service quality of innovative internet shopping (p = .005 and p = .044 respectively) (see Table 3) while monthly income and occupation were not significant. This result shows that younger and older customers perceived the quality of sales service rendered by innovative online stores differently regarding the ease of use shopping website and sales personnel's responsiveness.

**Table 3: Results for Ease of Use and Attentiveness in Perceived Sales Service Quality of Innovative Internet Shopping (n = 358)**

| Demographic Characteristics Variables of Perceived Sales Service Quality | | Ease of use and Attentiveness | | | | |
|---|---|---|---|---|---|---|
| | | F | Mean | 2 | Df | P Value |
| Age | 18 to 24 years old | 132 | 165.76 | 7.321 | 2 | .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 | .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 | | | |
| Monthly Income | N18,001 to N49,000 | 156 | 170.62 | 3.173 | 4 | .783 |
| | N50,001 to N100,000 | 100 | 170.14 | | | |
| | N100,001 to N150,000 | 77 | 145.55 | | | |
| | N150,000 | 25 | 182.63 | | | |
| Occupation | Civil (Public) Service | 109 | 182.63 | 5.179 | 2 | .635 |
| | Private/Corporate Service | 98 | 152.68 | | | |
| | Students | 151 | 150.09 | | | |

*Significant at <.05; p-Value = Significance value; N = Naira (Nigerian unit of currency), F = Frequency; Df = Degree of freedom

In the security and credibility construct age, educational qualification and occupation significantly differed in perceived sales service quality of innovative internet shopping (p = .044, p = .037 and .025 respectively) (see Table 4) while monthly income was not significant. In other words, younger and older, highly-educated and less-highly educated as well as employed and unemployed customers significantly differed in perception of innovative internet shopping regarding the issue of security in the online environment and credibility of products information on display.

**Table 4: Results for Security and Credibility in Perceived Sales Service Quality of Innovative Internet Shopping (n = 358)**

| Demographic Characteristics Variables of Perceived Sales Service Quality | | Security and Credibility | | | | |
|---|---|---|---|---|---|---|
| | | F | Mean | 2 | Df | P Value |
| Age | 18 to 24 years old | 132 | 165.83 | 6.095 | 2 | .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 | .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 | | | |
| Monthly Income | N18,001 to N49,000 | 156 | 121.91 | 3.583 | 4 | .543 |
| | N50,001 to N100,000 | 100 | 129.71 | | | |
| | N100,001 to N150,000 | 77 | 137.65 | | | |
| | N150,000 | 25 | 116.71 | | | |
| Occupation | Civil (Public) Service | 109 | 169.09 | 7.247 | 2 | .025* |
| | Private/Corporate Service | 98 | 173.98 | | | |
| | Students | 151 | 159.51 | | | |

*Significant at <.05; p-Value = Significance value; N = Naira (Nigerian unit of currency), F = Frequency; Df = Degree of freedom

In access construct gender and marital status significantly differed in perception of sales service quality of internet shopping regarding the customers ability to access the online stores' services. This result indicates that male and female customers differed significantly in perception of innovative internet service quality just like married and single (unmarried) customers did in issues surrounding access to online stores' websites and services. Similarly, both ale and female and ingle and married consumers significantly differed in perception of sales service of innovative online shopping in ease of use and attentiveness construct. That is, sales service quality regarding the ease associated with the use of the online shops' websites and their sales personnel's responsiveness were significantly perceived differently by male and female as well as married and single customers.

Only gender significantly differed in internet shopping perceived sales service quality in reliability construct, marital status was not. This showed that online shops' sales service reliability was perceived differently by male and female customers only, no marital status bias. Both gender and marital status did not significantly differ in perceived sales service quality

of innovative internet shopping in the security and reliability construct. This showed that virtually all groups or categories of customers perceived the security of the online shopping environment and the credibility of the sales personnel differently, regardless of gender or marital status (see Table 5).

**Table 5: Results for Gender and Marital Status in Perceived Sales Service Quality of Innovative Internet Shopping (n = 358)**

| Demographic Characteristics Variables of Perceived Sales Service Quality | | 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 | -.140 | | -.782 | |
| | Asymp. Sig. (2-tailed) | .033* | | .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 | -.698 | | -.954 | |
| | Asymp. Sig. (2-ailed) | .001* | | .340 | |
| EU&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 | -.401 | | -.574 | |
| | Asymp. Sig. (2-ailed) | .001* | | .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 | -.660 | | -.069 | |
| | Asymp. Sig. (2-ailed) | .509 | | .945 | |

*Significant at .05; N = Frequency

## DISCUSSION

The findings of this study indicate a significant difference exists between all the sociographic variables (age, educational qualification, gender, marital status except for monthly income) and perceived sales service quality. Concisely, hypotheses $H^1$, $H^2$, $H^3$, $H^5$ and $H^6$ were accepted, while $H^4$ was rejected. The result of a Kruskal-Wallis (H-test) test indicates that a significant difference exists between age and perceived sales service quality involving access (H (2) = 7.066, p = .001), EU&A (H (2) = 7.321, p = .005) and S&C dimensions (H (2) = 6.095, p = .044). This shows that the data provide statistically significant evidence of a difference between age categories and perceived sales service quality. Thus, $H^1$ was accepted.

The significant influence of age in access to online shopping suggests that customers' age is an important factor that online retail firms should consider when directing products promotion to target customers. The result of the post hoc test further indicates a significant difference exists between the youngest age group (18-24 years old) and the oldest age group (45 years old) pair. As far as age disparity is concerned in relation to perceive service quality, younger customers perceive online shopping service quality differently from older customers.

Furthermore, the significant difference that this study discovers in age category within EU&A dimension highlights the importance of customers' perceived benefits, perceived ease of use and perceived motivation (see Venkatesh *et al*., 2012, 2003) in the use of online commercial services. The post hoc test indicates that a significant difference exists between the two middle-age group pair (32 – 38 and 39 – 45 years old) as well as the oldest and the youngest age groups pair (45 and 18 – 24 years old). This result suggests that online shopping use skills, prior experience and cognitive motivation are driving factors that determine the influence of age on perceived sales service quality. Somehow supporting this finding, previous literature suggests that younger online customers possess higher use skills and deeper use experience (Venkatesh *et al*., 2012, 2012).

Similarly, a significant difference has been found between the oldest and the youngest age groups pair (45 and 18 – 24 years old) in age category within S&C dimension. Therefore, this paper asserts that as far as perceived sales service quality in relation to online retail security and believability of the online products and services issues are concerned, younger customers perceive online shopping security and credibility issues differently from older customers. Generally, young customers are more likely to have richer online experience than older customers are, hence the significant difference (see Venkatesh *et al*., 2012, 2003).

The findings indicate a significant difference exists between educational qualification and perceived sales service quality within all the four dimensions as follows: access dimension (H (2) = 7.335, p = .021), reliability dimension (H (2) = 7.124, p = .017), EU&A dimension (H (2) = 8.393, p = .044) and S&C dimension (H (2) = 8.323, p = .037). Hence, this paper provides a statistically significant evidence of a difference existing between educational qualification categories and perceived sales service quality, leading to the acceptance of $H^2$. The significance 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 that shapes individuals' perception and affect their online purchase perception and behaviour (Doostar *et al*., 2013; Vrechopoulos *et al*., 2001).

Furthermore, a post hoc test shows that a significant difference exists between postgraduate and undergraduate as well as between secondary school/college and

undergraduate pair within access dimension, between the latter within reliability and EU&A dimensions and between HND and ND/NCE within S&C dimension. This result suggests that education is a critical factor in this context given that education here implies the level and depth of knowledge and experience obtained from a formal educational institution or school (Klopping & McKinney, 2006) and even age (as implied by educational grade).

A significant difference was also discovered between gender and perceived sales service quality within reliability dimension ($p = .001$), between gender and perceived sales service quality and between marital status and perceived sales service quality within access dimension ($p = .033$ and $p = .041$) as well as within EU&A dimension ($p = .001$ and $p = .050$) respectively. This shows that the data provide a statistically significant evidence of a difference existing between gender and perceived sales service quality and between marital status and perceived sales service quality. Therefore, $H^3$ was accepted. However, no significant difference was found within S&C dimension. Past research has documented that gender affects customers' online behaviour (Venkatesh *et al*., 2012; Vrechopoulos *et al*. 2001). Although marital status is less often associated to people's online consumption behaviour, some case studies have suggested that marital status affects customers' online purchase behaviour (Izogo, Nnaemeka, Onuoha & Ezema, 2012).

This study did not find any significant difference between monthly income and perceived sales service quality with respect to all the four dimensions. This shows that the data do not provide statistically significant evidence of a difference between income and perceived sales service quality. All the results indicate a weak (non-significant) difference, which suggests that income did not, or did but weakly influenced customers' perceived sales service quality about online shopping. Hence, $H^4$ was rejected.

The study discovered a significant difference between marital status and perceived sales service quality within access and EU&A dimensions. This shows that the data provide a statistically significant evidence of a difference existing between marital status and perceived sales service quality, leading to the acceptance of $H^5$. The importance of marital status within access and EU&A dimensions suggests that the variation in lifestyle led by married and single customers (Izogo *et al*., 2012), influences their perceived access and perceived ease of use and attentiveness about online shopping. However, it is gratifying to discover that married and single as well as male and female customers perceive security and credibility of online shopping in the same way.

A significant difference exists between occupation and perceived sales service quality involving reliability ($H(2) = 9.104$, $p = .039$) and S&C ($H(2) = 7.247$, $p = .025$) dimensions. This shows that the data provids statistically significant evidence of a difference between income and perceived sales service quality, which shows that $H^6$ was accepted. The importance of reliability and S&C dimensions within the occupation category suggests that trustworthiness, risk-free retail cyberspace (or online virtual ambience) and believability of online retail services and information affect the perceptions of customers of different occupational backgrounds regarding online service quality.

A post hoc test for a difference in perceived sales service quality between private/corporate service employees and civil (public) service employees pair with respect to reliability and S&C dimensions yielded these results: ($H(1) = 7.262$, $p = .005$) and ($H(1) = 7.288$, $p = .005$) respectively. A significant difference was also found between private/corporate service

employees and Students pair in S&C dimension (H (1) = 5.231, p = .013). However, the results show that there was no significant difference between private/corporate service employees and students in reliability dimension.

## CONCLUSION

All the six sociographic variables, except monthly income, significantly differed in customers' perceived sales service quality in internet shopping variously 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, the influence of educational qualification, age and gender on customers' perceived sales service quality is much more important than that of marital status, monthly income and occupation.

In addition, among the three characteristics likely to influence perceived sales service quality in internet shopping mentioned above, educational qualification variously influenced customers' perceived sales service quality in all the four dimensions. A significant difference exists between the highest educational qualification pair (postgraduate and undergraduate) as well as between the lowest educational pair (secondary school/college) and undergraduate pair. This implies that customers with higher and lower educational qualification perceive internet shopping sales service quality differently. Generally, (regarding educational qualification), this result suggests that internet shoppers' level of education affects their perception of sales service quality, though not uniformly.

The influence of age and gender on customers' perceived sales service quality is virtually equal, especially in access, EU&A and S&C dimensions. However, EU&A and S&C are more influenced by age and gender. This result suggests that customers' age and gender play a significant role in shaping their perception of online service quality within the contexts of gaining access to the online market, ease of use (of online shopping applications, features and websites), a secure online shopping and believable products information. Since internet shopping involves e-transactions (Folade *et al*., 2016; Salimon, Yusoff & Mokhtar, 2016) such as online payments, naturally online customers would be concerned with the safety of their money and the security of credit cards' passwords (Salimon *et al*., 2016).

The findings of this study have indicated that income does not, or does but weakly influence customers' perceived sales service quality, suggesting that access to online shopping services domains and sales services are relatively cheap. Moreover, marital status is likely to significantly influence perceived sales service quality in the contexts of access and EU&A dimensions only. This suggests that married and single customers perceive internet shopping sales service quality differently, which, obviously could be due to the markedly different lifestyles led by many married couples and single individuals in Nigeria (see Izogo *et al*., 2012). Single but employed customers are likely to have more time to access online shops and surf online shops' websites and social media pages than are married couples (Chiejina & Olamide, 2014; Folade *et al*., 2016; Izogo *et al*., 2012).

Similarly, occupation is significantly likely to impact perceived sales service quality , however, only in the contexts of reliability and S&C dimensions. Importantly, security and credibility in online shopping environment cannot be overemphasised, so is trustworthiness (reliability). Reliability is only affected by customers' occupational backgrounds. Private/ corporate employees perceive sales service quality differently from civil/public servants;

so are private/corporate employees and students. However, civil/public servants perceive sales service quality equally among students. This result suggests that private/corporate employees are more likely to purchase products/services online more than either civil/public servants or students are. In Nigeria, employees of private/corporate organisations usually earn better emoluments than do public organisations' employees (Chiejina & Olamide, 2014; NITIDA, 2016).

Online retailers should articulate their online business strategies by focusing on customer-group-specifics: dealing in and designing products as well as rendering services that appeal to customers based on the customers' occupational/professional characteristics. This paper recommends that future study should focus on the factors that determine retailers' acceptance of internet retailing.

## REFERENCES

Aminu, S. A. (2013). Challenges militating against adoption of online shopping in retail industry in Nigeria. *Journal of Marketing Management, 1*(1), 23–33.

Babbie, E. (2010). *The practice of social research*. New York, USA: 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*. Chichester, UK: Wiley.

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

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.* New York, USA: Wiley and Sons.

Conover, W. J. (1999). *Practical nonparametric statistics*, 3rd edition. NY, USA: Wiley.

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, USA: McGraw-Hill.

Folade, 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.

Folade, 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.

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

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.

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

Ibrahim, A. M., Hassan, M. S. & Yusuf, S. (2018). Factors determining e-shopping compliance by Nigerians (pp. 2761–2772). In K., Mehdi, (ed.), *Encyclopedia of Information Science and Technology* (4th Edition). Hershey, P.: IGI Global.

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

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., 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, 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.

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.

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.

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.

Meyers-Levy, J. & Loken, B. (2015). Revisiting gender differences: What we know and what lies ahead. *Journal of Consumer Psychology*, *25*(1), 129–149.

Min, S. & Khoon, C. C. 92013). 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.

NITDA (2016). *E-Nigeria 2016*. Retrieved August 1, 2016 from http://www.nitda.gov.ng/event/e-nigeria-2016-2/

Njoh, A. J. (2018). The relationship between modern information and communications technologies (ICTs) and development in Africa. *Utilities Policy*, *50*(C), 83–90. doi: 10.1016/j.jup.2017.10.005

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. & Malhotra, A. (2005). E-S-QUAL: A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, *7*(10), 1–21.

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.

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

Rogers, E. M. (2003). *Diffusion of innovations*, (5th ed.). New York, USA: Free Press.

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.

Sánchez-Pérez, M., Sánchez-Fernández, R., Marín-Carrillo, G. M. & Gázquez-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.* NY, USA: Wiley

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. and 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[1]. *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.

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