

E-Commerce in Nigeria: A Survey of Security Awareness of Customers and Factors that Influence Acceptance

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ABSTRACT

The emergence of B2C e-commerce has influenced the business of shopping worldwide, Nigeria inclusive. Since the first e-commerce platforms in Nigeria came on board, over a decade ago, its adoption has dramatically increased. And this is despite the challenges it has been facing. This study seeks to access the security awareness of customers of e-commerce sites in Nigeria, and identify factors that influence acceptance of these platforms. Data were collected via the use of questionnaire. Results show that most customers are aware that their information are stored by the e-commerce sites, and are concerned about the security of their data on these sites and the possibility of their information to be transferred to third party without their knowledge or permission. Yet only few of them make effort to always check the security and privacy policies of the sites before making purchases. Also, only few users are conversant with security technologies for securing e-commerce platforms. Our proposed factors were found to be important or likely to influence transacting on e-commerce sites.

CCS Concepts

• General and reference → Document types → Surveys and overviews

Keywords

E-commerce, web retailer, online retailer, trust, acceptance, privacy.

1. INTRODUCTION

The beginning of electronic commerce can be traced as far back as 1970s during the time of electronic funds transfer and electronic data interchange (EDI) in the 1980s. However, the growth of the internet during the late 1990s became the primary catalyst that boosted its growth [1].

E-commerce has been defined in many ways and from different

perspectives in different literatures. Currently, there is no standard, generally-accepted definition of this concept [2]. However, some definitions that cover different perspectives of e-commerce were those by [3]. From a communications perspective, e-commerce was defined to involve the usage of telephone lines or computer networks for payments or to distribute information and products/services. From a business process perspective, e-commerce involves using technology to achieve business transactions and workflows in an automated manner. On the other hand, from a service perspective, e-commerce is a means whereby management, consumers and organizations requirements are covered to reduce service costs and at the same time improve the quality and delivery of goods and services. And e-commerce, from online perspective, supports the purchasing and marketing of goods, information and other online services on the internet. Electronic commerce has four major classes which are B2B (Business-to-Business), B2C (Business-to-Consumer), C2B (Consumer-to-Business), C2C (Consumer-to-consumer).

The focus of most studies has been on B2C e-commerce. In fact, e-commerce is arguably synonymous with B2C e-commerce. In lay man's term, it entails buying and selling via an online platform. Its main advantage over transacting in a physical marketplace is the convenience of shopping from anywhere, anytime.

E-commerce plays a major role in contributing to the economic growth of any nation [4]. For instance, it has the potency to boost small and medium-sized enterprises (SMEs) [5], [6], [7]. Specifically, its effects on SME include development of new markets, increased customer base, improved communication with customers, increased revenue growth, and reduced cost [6]. Consumers and businesses in developing countries can derive higher values from e-commerce, compared to those in developed countries [8]. Unfortunately, developing countries are not sufficiently tapping the benefits that IT affords. Hence, the wide digital divide between the developing and developed countries in terms of IT adoption.

1.1 E-Commerce in Nigeria

One of the developing countries that have experienced steady increase in e-commerce adoption is Nigeria. Beginning with about 2 e-commerce platforms about a decade ago, Nigeria had over 75 of these platforms as at 2013. By 2014, they had increased to about 105 [9]. No doubt, e-commerce has proven to be successful

in Nigeria [10]. It began with the era where Automated Teller Machines (ATMs) were the predominant mediums of transaction [11], [12], [13], growing to the current state of varied internet technologies for order placement, processing, fulfillment and delivery, and payment. It is not surprising that the transaction volume has grown geometrically [9].

The success recorded so far in the adoption of e-commerce in Nigeria is predicated on the level of adoption of information technology in the country. For instance, within years 2000 – 2013, internet penetration moved from 0.06 to 38.00 per 100 inhabitants [14]. Equally, within years 2000 to 2012, the mobile subscription base in the country had risen dramatically from 2% to 67.68% [15].

Existing e-commerce sites in Nigeria offer a very wide range of products and services. Some web retailers offer products and services to meet multiple customers' needs. Two of the most popular e-commerce sites in Nigeria, jumia.com.ng and konga.com.ng fall into this category. Their range of products covers technology, health, fashion, to mention but three. On the other hand, some online retailers simply focus on specific aspects of business. Two examples of these are obeezi.com and ochala.com, specializing in fashion. Table 1 below presents some popular e-commerce sites in Nigeria, with their rank in Nigeria and globally, percentage of visitors from Nigeria, estimated daily time used by visitors, and how fast the site loads.

In spite of successes in respect of adoption, there are challenges that have been identified militating against the progress of e-commerce in Nigeria. These include insecurity, poor electricity, and inadequate infrastructures. Despite these challenges, the prospect of e-commerce growth in the country is no doubt high [13], [16], [17]. Other challenges, equally common among developing nations, include essential legislations, low IT literacy, lack of awareness, non-availability of local language websites, lack of adequate e-commerce experts [8], lack of trust in the e-commerce infrastructure, poor website design, inability to complete transaction using credit/debit card option, and slow internet speed [9]. Nigerians are generally afraid of anything 'Nigerian.' The lack of trust is as a result of accumulated distrust, caused by incidences of failure daily experienced. For instance, cases of multiple deductions from a bank customer's account using ATM are commonplace. There is a lack of trust in the government of the country. Citizens are accustomed to many failed promises. Also, Nigerian is famous for online fraud. Consequently, this lack of perceived trust is occasioned when a potential customer experiences fear of providing financial details on e-commerce sites, fear of multiple deductions from account,

and doubt about the capacity of web vendors to deliver purchased product and deliver it on time [9].

1.2 Objectives of Study

Despite the array of challenges facing e-commerce in Nigeria, the number of web retailers and rate of adoption have been increasing. As presented in Table 1, most of the visitors to these online shopping platforms in Nigeria are from Nigeria. It is interesting to see that visitors are spending considerable time on these sites despite the fact that most of them are at best slow in loading. What could be the factors influencing acceptance of these platforms in Nigeria? Are customers aware of security implications associated with transacting online? Are they even concerned about their security on the online shopping sites? How much about the security mechanisms and technology used to enhance security of the e-commerce sites do they know? The objective of the study is two-fold. First, we evaluate the level of security awareness of Nigerian customers of e-commerce platforms. Secondly, the study would seek to identify factors capable of influencing them to accept these platforms.

1.3 Significance of Study

This study is significant in many ways. Primarily, it identifies factors driving the success of e-commerce in Nigeria. Secondly, it is expedient for web retailers to understand the categories of visitors to their platforms, and what influences the visitors to accept to transact on them. In general, the study reveals the current state of e-commerce in Nigeria.

2. LITERATURE REVIEW

2.1 Security Awareness

Users of e-commerce sites are constantly exposed to privacy and security risks. The security and privacy policies put in place by owners of the platforms are often inadequate. This is because these proprietors focus on functionality and ease-of-use. Consequently, security suffers. Another factor that contributes to privacy and security risks is the underlying architecture of the internet, which does not support security sufficiently. The implication of this is that, no matter the amount of security mechanism deployed absolute security is unattainable.

Another issue posing risk on online shopping platform centers on web retailers' use of customers' and visitors' information. This actually constitutes privacy risk. One aspect entails monitoring visitors' and customers' preferences through cookies without their knowledge. The other involves passing customers' private information to third party without their knowledge or consent.

Table 1. Popular e-commerce sites in Nigeria with their respective rankings based on some indices [18]

| Site | Rank in Nigeria | Global Rank | % of visitors* | Daily time on site** | How fast the site loads (secs) |
|---------------|-----------------|-------------|----------------|----------------------|--------------------------------|
| Jumia.com.ng | 7 | 1,098 | 97.1 | 22.21 | Slow (2.253) |
| Konga.com | 12 | 1,861 | 98.0 | 16.52 | Very slow (3.765) |
| jiji.ng | 40 | 6,539 | 95.1 | 6.58 | Very slow (3.164) |
| Kaymu.com.ng | 51 | 9,698 | 97.5 | 4.54 | Average (1.872) |
| Dealdey.com | 54 | 7,494 | 98.0 | 23.48 | Very slow (3.86) |
| olx.com.ng | 70 | 10,502 | 94.3 | 11.04 | Slow (2.352) |
| Yudala.com | 160 | 22,618 | 98.8 | 11.27 | Very slow (8.527) |
| Checki.com.ng | 219 | 27,012 | 90.6 | 7.47 | Slow (2.624) |
| Payporte.com | 297 | 35,958 | 99.2 | 10.42 | Very slow (3.477) |
| Kara.com.ng | 415 | 51,713 | 96.9 | 16.29 | Slow (2.857) |

| | | | | | |
|-------------------|-----|--------|------|-------|--------------------|
| Carmudi.com.ng | 417 | 45,787 | 93.3 | 5.27 | Very slow (3.705) |
| obeezi.com | 538 | 66,149 | 95.9 | 3.54 | Very slow (11.955) |
| Mallforafrica.com | 637 | 78,470 | 93.5 | 8.58 | Very slow (4.195) |
| Supermart.ng | 655 | 67,001 | 95.2 | 12.56 | Slow (2.736) |
| Coliseum.com.ng | 681 | 88,458 | 97.9 | 3.29 | Very slow (5.169) |

*Percentage of visitors represents visitors from Nigeria

**Daily time on site is the estimated daily time on site (mm:ss) per visitor to the site

In the light of the foregoing realities, it is wise to be security conscious while on e-commerce sites. Being aware that there are privacy and security risks associated with the internet naturally moderates a user's behavior while online. Also, it could be helpful to have, at least basic, knowledge of necessary security requirements a web retailer is expected to put in place, some of which are identifiable on the site. This could help a user in identifying online shopping sites that hypothetically are secure. For instance, [19] discovered that understanding of third-party seals influence trust disposition.

2.2 Antecedents of acceptance of e-commerce platform

The success of e-commerce, as is the case with any technology, depends largely on its being accepted by potential customers. E-commerce acceptance goes beyond obtaining information from an e-commerce site, but also includes actual transaction by purchasing from the site. In other words, acceptance goes beyond mere intentions; it actually entails transaction behavior. Web retailers desire buyers and not just visitors who surf their pages [20].

One factor which greatly determines customers' acceptance of e-commerce is trust [4], [9], [10], [20], [21], [22], [23], [24], [25]. Trust is fundamental to adoption of e-commerce. This is more so because online transactions have a high degree of uncertainties associated with them. This makes building trust so fundamental to the growth of e-commerce [20].

2.2.1 Contents and Functionality

Lack of e-commerce infrastructure negatively impacts acceptance. Reliability of payment instrument, and by extension, the entire e-commerce infrastructures, will significantly have positive influence [21]. Web retailers must integrate technologies that provide security into their online retail platforms. These include authentication and encryption mechanisms, privacy seals and disclosures, and firewalls [20]. Ponte, Carvajal-Trujillo, and Escobar-Rodríguez [19] discovered that third-party assurance seals, privacy and security policies influence perceived security.

Studies have shown that customers on e-commerce sites seek not only benefits that are utilitarian, but also those epicurean benefits. For instance, customers naturally would want to be able to compare prices of products and navigate easily through web-pages. In addition, they desire e-commerce sites with visually appealing designs, which provide pleasurable online shopping experience [22]. Navigation functionality has positive effect on trust [26]. An e-commerce site with good design layout guarantees ease of use. Studies have shown that perceived ease of use of website, for instance, to access needed information increases likelihood to accept the site [27].

Consequently, we propose the following hypothesis:

- H1.** Providing necessary contents and functionality is important to influence acceptance of e-commerce site.

2.2.2 Relevant Information

To enhance customers' confidence to purchase the product a web retailer must provide adequate product information [28]. Information on products and services offered, as well as the procedures for transaction must be complete and accurate. Insufficient information is a threat to acceptance of e-commerce [4], [21].

Two important pieces of information are the privacy and security policies of the e-commerce platforms. One of the antecedents of trusts on e-commerce sites is perceived security [19], [26]. To make a purchase a customer must trust the web retailer and also trust the e-commerce infrastructure [20], [22], [24], [29]. Fear of privacy and security risks can therefore be expected to reduce the tendency to transact online [4], [20], [28]. In other words, perceived risk of insecurity of personal information [20], [29], and also perceived risk, whether in the context of product/service purchased or the transaction process, could lower the likelihood to trust an e-commerce site [21], [30].

Thus, the following hypothesis is proposed:

- H2.** Providing relevant information is important to influence acceptance of e-commerce site.

2.2.3 Offering and Value Added Service

In order to attract customers, web retailers often engage in sales promotion. The prices of products are usually slashed during some periods of the year. In Nigeria, the web servers of a popular e-commerce site almost crashed during a sales promotion exercise, known as Black Friday. The amount of traffic had been enormous.

Providing value added services is another factor that can influence acceptance. For instance, provision of fast and effective feedback or introduction of live customer service will particularly interest new visitors. Visitors, on their first visit, could be skeptical about the site. Their fears can easily be allayed and doubts rapidly dissipated if their enquiries receive prompt attention.

Therefore, we propose the following hypothesis:

- H3.** Different product offering and value added services will likely influence acceptance of e-commerce site.

2.2.4 Vendor Reputation

Many online vendors have built reputation in their area of business, and are thus well known. A potential customer will more likely choose to purchase from such vendors than from a web retailer not well known. Online retailer reputation reduces the perceived risk of buying online [28], influences perceived security

[19], increasing trust and, as a result, intention to purchase [20], [24], [26].

Based on this, we formulate the following hypothesis:

- H4.** Online vendor reputation will likely influence trust to purchase from an e-commerce site.

3. METHODOLOGY

3.1 Participants

To achieve the aim of the study, it was necessary to access individuals who have patronized e-commerce platforms. Consequently, the survey was conducted in Lagos, one of the states in Nigeria located in the south west of the country. The choice was informed due to the fact that proprietors of most e-commerce sites in Nigeria are based in Lagos. Specifically, during the early years of e-commerce adoption in the country, virtually all the existing e-commerce platforms offered free delivery service to only customers in the state. Non-probability sampling was adopted. The survey was conducted in 2013, using questionnaire. A total of 200 questionnaires were distributed. Out of these, 131 were returned. After initial analysis, 84 were found to be valid. Most of the returned questionnaires were invalid due to incomplete and missing values. There were slightly more females (50.6%) respondents. Most were students (51.8%), less than 25 years (55.4%), have been using the internet for more than 1 year (72.3%), and have not purchased from the e-commerce sites more than 5 times (69.9%). Table 2 contains the demographic details of the respondents.

3.2 Measures

The questionnaire contained four sections. The first consisted of questions involving demography. In the second section, respondents were requested to provide information pertaining to their usage of e-commerce platforms. While section three sought information on security awareness of the users, questions relating to trust factors were contained in the last part.

The first, second, third, and fourth factors had 8, 6, 4, and 2 items respectively. To indicate the level of agreement we use a 5-point Likert scale. For the first and second factors, the scale consisted of 1 = strongly not important, 2 = slightly not important, 3 = important, 4 = very important, and 5 = don't know. On the other hand, factors three and four had scale ranging from 1 = strongly unlikely, 2 = slightly unlikely, 3 = likely, 4 = very likely, to 5 = don't know. We measured the internal consistency of the factors using Cronbach's alpha coefficient. The overall internal consistency of the 20 items was 0.745. Each of the factors also indicated acceptable level of reliability. Table 6 presents the mean, standard deviation, and internal consistency of the 4 factors. Analysis of data was descriptive. To determine the influence of each factor/item we used the average response score.

4. RESULTS

4.1 E-Commerce Site Usage

As presented in Table 3, more than half of the customers (61.4%) on e-commerce sites adopt the use of the platforms because they find it convenient or easy. The next motivating reason for purchasing on e-commerce site was the offer of delivery of purchased items at customer's desired location at no extra cost. To make payment for purchases, most users prefer payment online. When asked if they were satisfied with the service provided by e-commerce sites, most customers (51%) reported in the affirmative.

4.2 Security Awareness

While more customers of e-commerce platforms (57.8%) reported they were aware that e-commerce sites store information, including personal and financial, entered by their customers, most (55.4%) confessed they only seldom check the security and privacy policies of the sites. This is against the backdrop that most of them are actually concerned about the security of their data when transacting online (54.2%) and the possibility of the sites' owners passing their information to a third party without their knowledge or permission (49.4%). The results are presented in Tables 4 and 5.

The study also reveals (as depicted in Table 6) that most customers of e-commerce sites have either no knowledge or have only heard about the technologies that enhance security of the online platforms where they make purchases. Only very few have knowledge of these technologies. The level of knowledge of some of the technologies used for securing e-commerce was found to significantly affect whether a customer will easily be satisfied or not with the service provided by an e-commerce site. Specifically, in three of the technologies – firewall, Secure Socket Layer (SSL), and site certification – the more a user knows about these technologies the less such user is satisfied or likely to be satisfied with services on the platform. Among those who reported they had no knowledge of firewall, 93.3% indicated satisfaction with services provided by their e-commerce sites. On the other hand, 56.1% and 45.5% of those who had only heard of it and those who have both heard and know how it works respectively indicated satisfaction. The study was found to be significant ($\chi^2(1) = 8.303, p = 0.016$). For SSL, it was 92.3% v. 53.2% v. 20.0% respectively ($\chi^2(1) = 19.056, p < 0.001$), while for site certification, the level of satisfaction was reported by 73.5% v. 63.2% v. 18.2% respectively. This finding was equally significant ($\chi^2(1) = 10.834, p = 0.004$).

4.3 Factors that influence acceptance

Providing necessary content and functionality that support clear understanding of services rendered by an e-commerce site and its ease of use is important in increasing the trustworthiness of the site. Equally important, to gain the trust of customers, are relevant information that define policies, about product, guarantee/insurance, and that answer basic questions customers often ask.

Introducing value added services, in addition to offering branded products and low prices, would likely influence customers' trust to purchase. Other positive factor is the reputation of the vendor in traditional and internet world. Tables 7 and 8 depict the results of the trust factors and individual variables respectively.

5. DISCUSSION

This study sought to assess the level of security awareness of customers of online shopping platforms in Nigeria. The other part was identifying factors capable of influencing these customers to accept these platforms. From the results, most of the users were found to possess substantial length of internet experience. More than half have actually purchased online not more than five times. This suggests most customers are perhaps still conservative about purchasing from these sites.

To pay for transactions, most customers prefer or use the credit/debit card payment option. This is a positive sign showing that the country is making progress in her drive to go cashless. The study showed that fewer customers are choosing 'pay on delivery'

option. This result did not agree with [9] which reported ‘pay on delivery’ as the most preferred and assuring method of payment for customers.

Most users of e-commerce sites are aware that their information are stored by the sites, and are concerned about the security of their data on these sites and the possibility of their information to be transferred to third party without their knowledge or permission. Yet only few of them make effort to always check the security and privacy policies of the sites before making purchases. This suggests that the innate desire by most customers for security does not go beyond mere expectation and should be satisfied by a third-party. Customers expect web retailers to be solely responsible for their security, while they simply ‘fold their hands.’ Web retailers are limited in their capacity to provide security on their platforms. Users themselves, therefore, must be more active towards being protected while online

Table 2. Users’ demographic information

| | Freq | % |
|---------------------------------|------|-------|
| Sex | | |
| Male | 41 | 49.4 |
| Female | 42 | 50.6 |
| Total | 83 | 100.0 |
| Occupation | | |
| Student | 43 | 51.8 |
| Employed | 30 | 36.1 |
| Unemployed | 10 | 12.0 |
| Total | 83 | 100.0 |
| Age | | |
| < 20 | 20 | 24.1 |
| 21 – 25 | 26 | 31.3 |
| 26 – 30 | 15 | 18.1 |
| 31 – 35 | 12 | 14.5 |
| 36 – 40 | 4 | 4.8 |
| > 40 | 6 | 7.2 |
| Total | 83 | 100.0 |
| Length of internet usage | | |
| < 6 months | 17 | 20.5 |
| 6 months | 2 | 2.4 |
| 1 year | 4 | 4.8 |
| > 1 year | 60 | 72.3 |
| Total | 83 | 100.0 |
| Number of purchases | | |
| 1 – 5 | 58 | 69.9 |
| 6 – 10 | 18 | 21.7 |
| 11 – 15 | 2 | 2.4 |
| > 15 | 5 | 6.0 |
| Total | 83 | 100.0 |

Table 3. E-commerce usage characteristics

| | Freq | % |
|--|------|-------|
| Reasons behind purchase | | |
| Money back guarantee | 13 | 15.7 |
| Free delivery | 22 | 26.5 |
| 3 rd party recommendation | 8 | 9.6 |
| Convenient/Easy | 51 | 61.4 |
| Others | 6 | 7.2 |
| Most used/preferred payment method | | |
| Card online | 46 | 55.4 |
| PoS terminal at collection point | 7 | 8.4 |
| Cash at collection point | 2 | 2.4 |
| Cash on delivery | 6 | 7.2 |
| Bank deposit | 22 | 26.5 |
| Total | 83 | 100.0 |
| Satisfaction with level of service provided | | |
| Yes | 51 | 61.4 |
| No | 32 | 38.6 |
| Total | 83 | 100.0 |

Only very few customers, the study also revealed, know how security technologies used for securing e-commerce infrastructures work. Most have only heard of them. On one hand, this calls for concern. A customer who has no knowledge about any of the security mechanisms might not know when his security is breached by a web retailer. Such users are prone to be less security conscious online, and could be more likely to transact without any restraint. This lack of knowledge probably explains the inconsistent attitude of most customers to checking security and privacy policies of online shopping sites before making transactions.

On the other hand, the fact that most e-commerce customers in Nigeria knows nothing or have only heard of these technologies implies that e-commerce in Nigeria is accepted by both expert and non-expert IT users. In fact, for e-commerce to thrive, it must be accepted not only by those with good IT knowledge, but also those less IT-literate. This group of non-literate IT users would readily appreciate online retail platforms with good design layout which supports ease of use.

We explored if there was any relationship between level of knowledge of internet security technologies and satisfaction with services provided by web retailers. Our findings revealed that those who possess knowledge about the workings of these technologies were less satisfied and less likely to be satisfied by e-commerce platforms. One possible reason why less percentage was satisfied among those who have knowledge of online security, compared with those who either knew nothing or have only heard, was non-availability of the security technologies on the e-commerce sites. To satisfy those with considerable IT security knowledge, web retailers would have to go beyond providing platforms with good design layout and functionality. The ability of the sites to support security as well must be evident. Online retailers must make easily accessible security seal (also known as third-party assurance seal), privacy and security policies, and other security evidence on their sites.

Provision of necessary contents and functionalities, relevant information were found to be important in influencing transaction online. Also, providing value added services and vendor reputation are likely to influence a potential customer to purchase from an e-commerce site. These findings suggest customers desire full satisfaction while online. They not only want a platform where locating a product is easy, adequate information about products are easily accessible, enquiries are rapidly attended to, or transaction could be completed almost seamlessly, but also would appreciate visible evidence that the retailers are able to secure their personal and transaction information.

Table 4. Security awareness

| | Freq | % |
|---|------|-------|
| Aware of storage of personal and financial information | | |
| Yes | 48 | 57.8 |
| No | 35 | 42.2 |
| Total | 83 | 100.0 |
| Checking of security/privacy policy before transaction | | |
| Never | 17 | 20.5 |
| Sometimes | 46 | 55.4 |
| Always | 20 | 24.1 |
| Total | 83 | 100.0 |

Table 5. Level of security concern

| | Strongly not concerned | Slightly not concerned | Concerned | Strongly concerned | Don't know |
|---|------------------------|------------------------|------------|--------------------|------------|
| Security of data when transacting | 3 (3.6%) | 19 (22.9%) | 45 (54.2%) | 11 (13.3%) | 5 (6.0%) |
| Passing of your information to a third party without your knowledge or permission | 4 (4.8%) | 16 (19.3%) | 41 (49.4%) | 16 (19.3%) | 6 (7.2%) |

Table 6. Level of knowledge of associated security technologies

| | No knowledge | I have heard of it | I have heard of it and know how it works |
|-------------------------------------|--------------|--------------------|--|
| Firewall | 15 (18.1%) | 57 (68.7%) | 11 (13.3%) |
| SSL (Secure socket layer) | 26 (31.3%) | 47 (56.6%) | 10 (12.0%) |
| SET (Secure electronic transaction) | 31 (37.3%) | 36 (43.3%) | 16 (19.3%) |
| Encryption | 35 (42.2%) | 35 (42.2%) | 13 (15.7%) |
| Site Certification | 34 (41.0%) | 38 (45.8%) | 11 (13.3%) |

Table 7. Trust factors capable of influencing a customer to purchase online

| Factor | No. of Item | Mean | SD | Cronbach's alpha |
|-----------------------------------|-------------|-------|-------|------------------|
| Content and Functionality | 8 | 3.038 | 0.965 | 0.675 |
| Relevant Information | 6 | 3.050 | 0.967 | 0.710 |
| Offering and Value Added Services | 4 | 2.988 | 0.921 | 0.649 |
| Vendor Reputation | 2 | 2.789 | 1.006 | 0.554 |

Table 8. Mean and standard deviation of individual trust variable

| Factor | Mean | SD |
|-------------------------------------|------|-------|
| Content and Functionality | | |
| Security seal | 3.08 | 0.940 |
| Privacy seal | 3.06 | 0.929 |
| Search facilities | 2.95 | 0.825 |
| Logos of well known brands | 2.96 | 0.788 |
| Pictures of product | 3.11 | 0.897 |
| Pictures of real people | 3.05 | 1.070 |
| Company logo | 2.96 | 1.041 |
| Navigation (layout and ease of use) | 3.12 | 1.173 |
| Relevant Information | | |
| Privacy policy | 3.00 | 0.937 |
| Security policy | 3.01 | 0.943 |
| Frequently asked question (FAQ) | 3.05 | 0.949 |
| Customer service section | 2.89 | 1.000 |
| Guarantee/Insurance | 3.19 | 0.930 |

Product Information 3.16 1.042

Offering and Value Added Services

| | | |
|----------------------------------|------|-------|
| Provides fast/effective feedback | 3.00 | 0.841 |
| Offers low prices | 2.89 | 0.856 |
| Offers branded products | 2.96 | 0.917 |
| Uses advanced technology | 3.10 | 1.055 |

Vendor Reputation

| | | |
|---------------------------------|------|-------|
| Well known in traditional world | 2.59 | 1.036 |
| Well known in internet world | 2.99 | 0.969 |

This study is not without limitations. First, self-report measures were used as the primary source of data. This implies that our findings are subject to the validity of these measures. It raises the question of generalization. Results here, for instance, may not be applicable to other, say, age group. Secondly, the relatively small sample size became the source of some other limitations. Our intention was to use exploratory factor analysis (EFA) for data

reduction, in order to identify factors that most explain the variance in the observed variables. However, based on pre-analysis results, including communalities and correlation coefficients, it was evident the method could not be used. Also, exploring relationship between variables (using Chi-square), in many cases, became infeasible. In most of these cases, more than 20% of expected frequencies were less than 5. The use of factor analysis and identification of other relationships among variables are consequently recommended for further studies. For instance, the relationship between perceptions of the individual trust factor and levels of IT knowledge could be explored.

6. CONCLUSION

With the consistent increase in the adoption of the internet and other information and communication technologies in Nigeria, the future of e-commerce is bright. The study has revealed that customers are willing to accept this platform as long as the environment is right. The onus therefore lies with web retailers to provide online shopping platforms that would satisfy all categories of customers irrespective of their IT inclination.

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