



## Demographic Variables and Internet Shopping in Nigeria



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### Abstract

The rapid advancement in technology has affected all commercial activities including retailing/shopping, thereby causing a paradigm shift in the way things are done. Internet shopping has become the next big thing in e-business/e-commerce and is definitely the future of shopping in Nigeria and the world at large. More and more firms /retailers are launching platforms via the internet to facilitate the act of shopping. The knowledge of the demographic characteristics of consumers will to a large extent help these e-retailers in their efforts geared towards consumer satisfaction. However, 311 internet shoppers in Nigeria were randomly selected and used as respondents for the study and structured questionnaire was the major instrument for data collection. The hypotheses generated for the study were tested using crosstab Chi-square. Findings revealed a relationship between the demographic variables and internet shopping.

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## 1. Introduction

In recent times, globalization which is at its peak has continued to drive the rapid growth of international trade, global corporation and advances in internet and e-commerce. The emergence of the internet has changed how businesses and customers do things. In 1991, the internet had less than three million users worldwide and no e-commerce but by 1999, about 250 million users appeared online and 63 million of them engaged in online transactions which produced a total value of \$110 billion (Talal and Charles, 2009).

Looking at this from the Nigerian perspective, Nigeria was seen to be the fastest growing telecommunication country in Africa (Ayo *et al.*, 2011). The growth of a number of internet users from the year 2000 to 2010 is sporadic as it recorded 21.891.1% growth rate! The Internet World Stat (2010), recorded 200,000 internet users in Nigeria in the year 2000. This number is, however, less than 1% of the national population (precise 0.1%). In the year 2006, the number has grown to 5,000,000 (again just 3.1% of the national population). This figure doubled in 2008 with 10 million people having access to the internet. In 2009, the figure went above double as 23,982,000 million people used the internet in Nigeria. By June 2010, the number of internet users has grown to 43,982,200 that is, 29.5% of the country's population. The increasing users of the internet in Nigeria from 0.1% in 2000 to 29.5% of its population in

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June 2010, revealed that the use of the internet in the country is growing at a sporadic rate and still has the potential to grow higher (Ayo *et al.*, 2011). In 2014, Nigeria with a total population of 178,516,904 recorded a 38 percent internet usage rate ([www.internetlivestats.com](http://www.internetlivestats.com)) and major internet activities include emailing, web browsing and online shopping. In 2012, expenditures in online stores in Nigeria increased from #50 billion in 2010 to #378 billion ([www.PhilipsConsulting.Net](http://www.PhilipsConsulting.Net)).

There are several factors that have also contributed to the progress of e-commerce in recent times besides the internet. These factors include the increasing number of experienced users, individual's exposure, ease of navigating through websites, convenience, time savings amongst others. However, privacy issues and security concerns have posed major threats to e-commerce. Over the past few years, researchers have conducted research in the area of Information Technology while testing certain demographic variables like gender, age, income, education level etc. This study aims at determining the effect of these demographic variables of age, gender, education level and income on consumers' decision to shop online in Nigeria.

## 2. Research Methods

For the purpose of this study, the demographic variables to be considered are gender, age, education, and income. **Gender** – Males were found to be more convenience seekers than females (Swaminathan, 1999). Some other studies found females to be more motivated to shop online than males. Huang and Chun (2010) conducted research on gender differences in adolescent's online motivations among 639 high school students in Taiwan. Male adolescents hold significantly more positive attitudes toward online shopping than female adolescents, thus the researcher suggests that gender differences really exist in online shopping. Previous studies also found gender differences to significantly affect new technology decision-making process. Venkatesh and Morris (2000) reported that women tend to accept information technology when others have high opinions of it and are more influenced by ease of use. Men were seen to rely more on their evaluations of the usefulness of the technology. In the African setting, more especially Nigeria as a whole, women are the primary decision-makers in families and household main shoppers. Costa (1994) opined that females have been associated with shopping but males are found to be abreast with computer technology. Nevertheless, Alreck and Settle (2002) conducted a study in the US and found no significant difference between the attitudes of both the male and female towards online shopping. Eurostat (2009) suggests that an increasing number of women use the internet thereby decreasing the gender gap in the use of technology. Results of a research conducted by Dahiya (2012) shows that females buy more frequently than males while the findings of Ifeanyichukwu (2016) revealed more male shoppers who are economic oriented to abound in Nigeria. In other words, gender impacts on online shopping. We, therefore, hypothesize;

**Hypothesis one:** There is a relationship between internet shopping and gender.

**Age** – Age is an important determinant of consumer behavior as regards Information Technology (IT). Younger individuals were seen to possess greater experience with the internet but older individuals perceive greater risk and have more difficulty in accepting new challenges (Morris and Venkatesh, 2000). Online shoppers were found to be younger in age. Ages especially periods between 25years-36years have been found to have overpowering influence for shopping online (Ahmed and Sathish, 2015; and Ifeanyichukwu, 2016). Trocchi and Janda (2000) opened some reasons why older consumers are reluctant to shop online. These reasons include Lack of IT experience, resistance to change and their insistence on trying out the product before purchase. We also hypothesize that:

**Hypothesis two:** There is a relationship between internet shopping and age.

**Income** – Income is very important when talking about adopting technology. Higher income causes internet users to perceive little risk in undertaking online purchases whereas low income discourages internet transactions (Lu, Yu, Liu and Yao, 2003). Previously, income played a major role and segmented the population as the high prices of computers, phones, and internet subscription made it only affordable by the rich class. But most recently, there is fall in the price of computers, smartphones, and intense competition in the communication industry in Nigeria has led to lower rates of data subscription as one gets more megabytes or gigabytes for a paltry sum. Thus, a greater percentage of Nigerians can presently afford internet facilities. Sultan and Henrichs (2000) reported that consumer's willingness to and preference for adopting the internet as his/her shopping medium was positively related to income, household size, and innovativeness. Meanwhile, Dahiya (2012) reported that income does not significantly affect online shopping. We, therefore, hypothesize that:

**Hypothesis three:** There is a relationship between internet shopping and income.

**Education** – Akhter (2002) indicated that more educated, younger males and wealthier people in contrast to less educated, older females and less wealthy are more likely to use the internet for purchasing. Dahiya (2012) argued that education does not impact online shopping. We also hypothesize that:

**Hypothesis four:** There is a relationship between internet shopping and education.

This study is based mainly on a survey conducted through an online questionnaire administered to 311 respondents who shop online in Nigeria. The respondents were chosen conveniently by the researcher. The responses were analyzed and the hypothesis tested using crosstab chi-square with the help of the Statistical Package for Social Sciences (SPSS) version 20. Table 2 below represents the demographic characteristics of the respondents.

Table 1  
Respondent's demographic characteristics

Variable	Description	Frequency	Valid Percentage	Cumulative Percentage	Mean	Standard Deviation
Gender	Male	135	43.4	43.4	1.57	0.496
	Female	176	56.6	100		
	Total	311	100			
Age	18 - 30 years	261	83.9	83.9	1.16	0.368
	30 - 40 years	50	16.1	100		
	Total	311	100			
Educational Qualification	FSLC	2	0.6	0.6	3.29	1.026
	WAEC	94	30.2	30.9		
	OND/NCE	57	18.3	49.2		
	B.Sc	127	40.8	90.0		
	Postgraduate	31	10.0	100.0		
Marital Status	Total	311	100		1.18	0.385
	Single	255	82.0	82.0		
	Married	56	18.0	100		
	Total	311	100			

Source: Primary data

Table 1 above shows that majority of the respondents are female with a frequency of 176 (56.6%) while male constituted a frequency of 135 (43.4%) with a mean and standard deviation of 1.57 and 0.496 respectively. 83.9% of the respondents were between the ages of 18-30 years totaling 83.9% while the remaining 50 respondents (16.1%) fall between the ages of 30-40 years. The mean and standard deviation of the ages are 1.16 and 0.368 respectively. 0.6% of the respondents were holders of FSLC, 30.2% were WAEC holders, OND/NCE holders were 18.3%, and B.Sc holders were 40.8% while the Postgraduate holders were 10.0%. The mean and standard deviation of the educational qualifications of the respondents are 3.29 and 1.026 respectively. A large number of the respondents (255) with a percentage of 82.0% are single while 56 respondents (18.0%) are married. The mean and standard deviation of the responses are 1.18 and 0.385 respectively.

### 3. Results and Analysis

Table 2  
Gender: Chi Square tests

	Value	df	Asymp. Sig. (2 sided)
Pearson Chi-Square	12.677 <sup>a</sup>	4	.001
Likelihood ratio	12.863	4	.012
Linear-by-Linear Association	2.136	1	.144
N of Valid Cases	311		

Source: SPSS version 20

0 Cells (.0%) have expected to count less than 5. The minimum expected count is 15.63.

Table 3  
Age: Chi-Square tests

	Value	df	Asymp. Sig. (2 sided)
Pearson Chi-Square	23.872 <sup>a</sup>	4	.000
Likelihood ratio	28.418	4	.000
Linear-by-Linear Association	6.444	1	.011
N of Valid Cases	311		

Source: SPSS version 20

O Cells (.0%) have less expected count less than 5. The minimum expected count is 5.79.

Table 4  
Educational Qualification: Chi Square tests

	Value	df	Asymp. Sig. (2 sided)
Pearson Chi-Square	131.232 <sup>a</sup>	4	.001
Likelihood ratio	143.522	4	.000
Linear-by-Linear Association	.861	1	.353
N of Valid Cases	311		

Source: SPSS version 20

Table 5  
Income: Chi-Square tests

	Value	Df	Asymp. Sig. (2 sided)
Pearson Chi-Square	45.276 <sup>a</sup>	4	.000
Likelihood ratio	45.617	4	.000
Linear-by-Linear Association	5.299	1	.021
N of Valid Cases	311		

Source: SPSS version 20

#### 4. Conclusion

From the tables above, Gender ( $X^2 = 12.677$ ,  $df = 4$ ,  $P = 0.001$ ), Age ( $X^2 = 23.87$ ,  $df = 4$ ,  $P = 0.00$ ), Education ( $X^2 = 131.23$ ,  $df = 16$ ,  $P = 0.01$ ) and income ( $X^2 = 45.28$ ,  $df = 4$ ,  $P = 0.00$ ) we therefore accept the hypotheses stated above and conclude that there is a relationship between consumers demography and internet shopping in Nigeria. In other words, we agree that demographic variables play a vital role in determining Nigerian consumers' willingness and ability to patronize online stores. Moreover, these new findings can be justified with the elaborate literature reviewed above.

The concept of demography cannot be neglected in the study of internet shopping and other internet related activities. Thus, there is a need for internet stores to have a good knowledge of the demographic characteristics of their consumers. This will to a large extent aid sale and enhance e-commerce.

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#### *Statement of authorship*

The author(s) have a responsibility for the conception and design of the study. The author(s) have approved the final article.

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