

## Customer Satisfaction with e-Commerce Business: A case of konga.com

Olawale, Yinusa A., Salman, Abdulrazaq, Ishola, Abdulrasaq Ajadi

### Abstract

As the internet and information technology become popular, e-commerce is moving at an unprecedented pace. Thus, the general adoption of internet facilities has made e-commerce take over the approach through which things were done, hence, this study aimed at examining the impact of e-commerce on Konga.com customer's satisfaction in Ilorin metropolis, Kwara State, Nigeria. Specifically, it sought to investigate the extent to which Konga's website design promotes user-friendliness, convenience in use and payment, data security, competitive advantage and timeliness in service access. In essence, the study investigated the extent to which these indicators contributed to the realization of customers' satisfaction. In testing the veracity of the claims, the study adopted a purposive sampling technique to select 384 respondents used. In furtherance, the study adopted multiple regression analysis for data analysis. The result of the analysis revealed that the factors that impacted customers' satisfaction with the use of Konga.com's e-commerce platform included; the reliability of meeting requests and specifications, a friendly user interface and easy navigation, and a timely and secure payment system. The two hypotheses tested showed that all the variables were positively significant. The study, therefore, concluded that the convenience, timeliness, data security and the competitive advantage of e-commerce had impact on customer satisfaction. However, customers' confidence depends on how often konga.com meets requests and specifications rather than security or efficiency. This study thus recommended that e-commerce sites be developed to facilitate a secure payment system and a more user-friendly online interface to boost customers' confidence and patronage.

**Keywords:** e-Commerce; Customer; Customer's Satisfaction; Konga; Internet

**JEL Classification:** O3

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## Introduction

The internet of things (IoT) has been the most welcoming idea all over the world, perhaps, turning the world into a global village. One that has taken the advantage of the internet is Electronic Commerce (e-commerce), which is about reforming all commercial activities using information and communications networks. This made e-commerce to be an effortless and paperless transaction platform. e-Commerce perform its functions by exchanging sales information and related details for the buying and selling of goods, with minimal effort in a very short period of time. Therefore, e-commerce is a general name for different software and systems that provide transactional services such as mobility management, sales platform, information search, account status, payment for online reporting as well as billing execution (Alfonso et al., 2021; Boysen et al., 2019; Mahsa, Mohammad, Latifeh, Farimah, Ali & Mohammad, 2013).

Adeoyo & Lawanson (2012) while stressing the invaluable position of the customers in the success of any business establishment noted that the customers determine the sustainability of the venture as, without them, organizations are not likely to succeed. In view of their role in the mix, businesses have redirected their attention to ensuring that products and services at least meet or even beat the aspiration and expectations of the customers. The trending redirection of the company's focus to its clients has therefore given prominence to the popularity and adoption of the e-commerce platform which has metamorphosed into a global phenomenon (El Gawady, 2005). On the platform, products and services are better advertised/showcased in the language best suited to the potential client (i.e., visually and even at times with a video demonstration) which eliminates the fear of utility mismatch between the company and their service /product users. This thus facilitates the emergence of a mutual or cordial cyber-relationship that cements the two parties for a long. In support of this, the National Bureau of Statistics as captured by Omololu (2014) submitted that the fast-moving consumer goods sector (FMCG) of about 9% has contributed to the boost in the Gross Domestic Product of Nigeria despite that only pantry of 38% of the country's population patronized products and services online. The low patronage as opined by Omololu was predicated on the long-established fear of financial security in view of the activities of online fraudsters (i.e., Yahoo boys in Nigeria) coupled with issues with reliability, illiteracy, and efficiency.

E-Commerce transactions in Nigeria are increasing at an exponential rate over the past three years, and the opportunities available for improvement are limitless (Mahsa et al, 2013). e-Commerce business makes the business transaction easy for customers with the utmost service, yet there are obstacles that limit the sales transaction in e-commerce and thereby reduce the business sales and eventually result in loss. One of the major challenges of online customers is the difficulty in the website design, most of the websites are not user friendly and most Nigerians have little or no technical knowledge when it comes to Information Technology because the country is in the interactive era of e-government implementation (Kirfi & Ishola, 2018) which means that majority of customers are just moving to internet era and do not possess the adequate knowledge on how these sites function. The payment system is another major challenge of E-commerce activities in Nigeria because our banks are not totally integrated into the online services we have locally, most banks' ATM (Automated Teller Machine) cards need to be authorized before making payment, even after authorizing the card, there is still a need to validate every transaction by receiving an OTP (One-Time-Pin) which makes most people avoid e-commerce activities due to the long process of payment before a purchase can be made.

In addressing the fear expressed above, stores using online platforms are striving to create a safe haven for customers and their funds while also ensuring that products and services rendered meet the expected specification standard promised to the client at the point of purchase. In effect, this will increase trust, patronage, and retention in the relationship between the e-stores

and their customers. Aside from ensuring that all needs of the customers (both material and psychological) are adequately covered, efforts must also be geared at creating periodic auditing of customers' feedback on the services received especially through an academic exercise like responding to a survey. It is from this background that this study attempts to investigate the impact of e-commerce on customers' satisfaction using Konga, an online shopping platform as a basis of investigation. This will be done by examining the extent of convenience, timeliness, information security and competitive advantages guaranteed by Konga's website.

## Literature Review

E-Commerce is a combination of two terms which were; electronic and commerce. As posited by Escursell et al. (2020) and Anvari and Norouzi (2016), e-commerce has assumed prominence in modern trading transactions. In its contextual sense however, it refers to the conduct of business transaction (buying, selling, settling of bills etc.) through the internet. Not minding how it has been briefly defined above, it is an activities-filled concept. It is about sharing information, buying and exchange of products and services; equally about a virtual relationship building and branding. Often, e-commerce is misconstrued to be about just the interaction between web retailers and web end customers. Instead, it encompasses a host lot of online business activities that results in the exchange of value for utility (Wada & Odulaja, 2012; Boysen et al., 2019). As a multifaceted-device platform, e-commerce supports mobile transactions, supply chain management, management information system, digital marketing, and a host of other electronic related financial transactions. Saimunur (2014) however, opined that at one point or the other, e-commerce relies on the World Wide Web (www). In collaborating the above, Ige (2004) held that e-commerce entails the exchange of business-related data, digital products and services etc. on ICT tools, all in an attempt to foster a healthy and profitable business relationship between the store and their customers.

E-Commerce is commonly painstaking to be a division of e-business. It denotes exchange of business data to assist the funding and payment parts of business transactions. This describes the operative way of exchanging information within an organization and it is one of the most resourceful ways of carrying out business (Saimunur; Bidgoli, 2001). More elaborately, Alfonso et al. (2021) stated that e-commerce covers the buying, selling and retailing of goods and services over the internet. The extent of complexity in the practice of e-commerce depends on the extent of ICT development in the country and this explains why the pace of e-commerce development and use is relatively slow in the developing countries. Invariably, the pace mirrors the level of state's commitment to the digital innovations.

## Types of e-commerce

In categorizing e-commerce, several theories have been paraded with each focusing on different aspects of the concept. While some focused on the varieties of platforms available, others examined the various participants in the exchange. As argued by Anvari and Norouzi (2016), the use of internet in trading has impacted the relationships among business to business (B2B), and business to consumer (B2C). This study in view of its objectives will therefore examine the concept from the parties' involved approach/perspective:

- i. **Business to Consumer (B2C):** This explains the common understanding of the relationship between the service providers and their clients. It is the basic classification most popular as it covers the parties involved in the exchange of value (fund most especially) for products and services. To Anvari and Norouzi (2016), the B2C category is better described as the *individualization of trade*. In this classification, e-stores most popular are Amazon, Alibaba, Asos & Craigslist and several others. In staying ahead of competition, several innovative strategies like virtual store tour; virtual window shopping etc. were developed. Examples of online stores that are championing the

innovation are Wal-Mart Store and the Gap that are proactive in B2C E-commerce. Without mincing words, e-commerce provided unhindered access to products and services known for hoarding ab initio.

- ii. **Business to Business (B2B):** This covers the various electronic based transactions and dealings between and among business entities. In view of the collaborative tendencies overtaking the emerging business world, engagement between one business and another thus became necessitated. For instance, financial institutions must interact online to get cheque cleared and payment confirmed. Similarly, in the commodity industry, firms either interact to get raw materials or to joint supply their product to a particular client. This has thus created a formidable platform for firms in the same market to constantly exchange digital messages and data.
- iii. **Consumer to Consumer (C2C):** This form of electronic platform allows clients to meet and exchange products via the net. In essence, it facilitated the engagement of the consumers on the internet with the intention of purchasing and product selling. Other related engagements are Consumer to Business (C2B), Non-Business and Government and Intra-Business.

### e-Commerce Models

According to Hossein Bidgoli (2001), the most important aim of electronic commerce is to improve business income while enhancing the change of profit generation. This is a mere replica of the initial manual channels of conducting transactions. However, the development of the internet has significantly enhanced the engagement.

E-Commerce models are either an improvement to traditional business models or a revision, such as marketing strategy models, or the development of new business models that are appropriate for e-commerce implementation, such as intermediary. Merchant, brokerage, advertising, mixed, infomediary, subscription are the most popular E-commerce models:

- i. **Merchant Model:** This model involves the transfer of old retail model to E-commerce model Internet. Different types of merchant models are available for use, but the most common type is comparable to the usual business model that sells goods or services through the web. Amazon.com is a typical example of this type of E-commerce. Generally, E-commerce similar to Amazon.com uses web technologies to sell products and services directly to the consumers. Ability of the company to provide good customer service at reasonable prices, enables these companies to establish a brand on the web. Several traditional businesses employ the merchant model to sell goods or services through the Internet. Examples of such businesses include Cisco Systems, Compaq and Dell. These companies reduce the function of middlemen by creating a segment of their total transactions over the web and also, having the opportunity to reach difficult customers. A typical example of organization that uses this model is Amazon.com Corporation.
- ii. **Brokerage Model:** This model explains the E-commerce platform that brings sellers and buyers together in one web community and collects a commission on the transactions. The best illustration that can be given to this type of model is online auction websites like gittigidiyor.com, eBay which also make additional revenue through the selling of promotional banner material on their sites.
- iii. **Advertising Model:** This model provides an extension to traditional advertising media, for instance television and radio. Directories and search engines such as Google and Yahoo are typical examples that create contents (this function is similar to that of TV

set and radio TV). It also allows access to free content usage. E-commerce in this model creates significant traffic, which enable it to charge advertisers for putting banner ads or leasing spots on their sites.

- iv. **Mixed Model:** This model allows revenue generation from subscriptions and advertisement. For example, Internet service providers (ISPs) such as Super Online and America Online (AOL) generate their own revenue from advertising as well as customers' subscription fees for using Internet.
- v. **Infomediary Model:** E-commerce uses this model to gather data on consumers and businesses and then sells this as information to interested companies for marketing purposes. For example, bizrate.com generates its own revenue by gathering information related to the performance of other sites and sells this information to advertisers. Netzero.com provides free Internet access in order to create positive traffic. Another example is eMachines.com who provides free PCs to its customers for the purpose of attracting customers.
- vi. **Subscription Model:** This model allows E-commerce to sell digital products to its customers. Consumer Reports and Wall Street Journal are typical examples. Sreeet.com, AjansPress.com is another example of this model that sells business news and analysis based on subscription.

### **The Benefits of e-Commerce**

According to Saimunur (2014), only a handful of innovations in human history contain as many prospective advantages as e-Commerce does. Choshin and Ghaffari (2017) even held that the extent of improvement that has happened in commerce has remained the biggest gain of the current information technology. The worldwide nature of the technology, resourcefulness' opportunity to reach a large number of people, the cost effectiveness, interactive nature, the expansion of the supporting framework (especially the internet) and diversity of possibilities will result in many prospective benefits to individuals, organizations and society. These benefits are just starting to become visible, but they will increase considerably as e-commerce expands. It is not surprising that some maintain that the e-commerce uprising is just as astonishing as the adjustments that came with the industrial revolution.

The following are some of the advantages of e-Commerce to consumers:

- i. It provides the client with more choices; they can select from many salespersons and from many more goods.
- ii. It allows consumers to do transactions 24 hours a day, all year round, from any location internet facility is available.
- iii. It makes it feasible for customers to partake in virtual auctions.
- iv. It often allows customers with cost effective products and services by enabling them to perform transaction in any location and carry out fast comparison.
- v. It facilitates competition, which results in considerable discounts.
- vi. It allows for smooth and quick delivery of digitized products.
- vii. Relevant and in-depth information can be received by consumers in seconds, rather than days or weeks.
- viii. Electronic commerce allows customers to relate with one another in electronic communities and exchange thoughts as well as compare past experiences.

## Customer Satisfaction

Customer satisfaction may be seen as collective outcome of observation, assessment and emotional reactions of consumers to the consumption experience of a product or service. Kotler (2000) viewed satisfaction as a person's feelings of gratification or displeasure resulting from a comparison between a product perceived performance or outcome in relation to his or her expectations. Customer satisfaction simply means when products or services meet the required expectation of the consumers. This, according to Boysen et al. (2019) is most popular in online ordering of products. It is of utmost importance to note that goods and services provided by a website must meet the needs and expectation of consumers, as satisfied customers are more likely to be loyal and make recurring purchases which will increase the profits earned by that particular e-commerce company. Adewuyi (2011) described customer satisfaction as a consumer's after-used assessment of a purchased product or service, given certain pre-purchase expectations.

Customer satisfaction is affected by special features a product or service offers and perceptions of customers on the quality of the product or service. Customer satisfaction is also influenced by customer's emotional attributions and perception of fairness to the product (Zeithal & Bitner, 2003). Continuous increment in customer satisfaction will provide company benefits like increasing customers' positive words of mouth, customer satisfaction, customers' life circle and expanding the goods or services the customer purchase. Repurchasing habit is only possible when customers are satisfied with the product or service of the company, and recommend products or services to potential customers. It is virtually impossible for organizations to grow when the company ignores the needs of customers (Tao, 2014). Customer satisfaction is one of the major marketing strategies for business to remain in the competitive market (Kabu & Soniya, 2017).

In the promotion of customer's satisfaction, the internet has been helpful significantly. It has offered a platform for cheap and effective business communication between businesses and their customers. Images and video descriptions are a few of the innovations offered by technology to enable an executable business relationship between sellers and buyers. The use of ICT in the promotion/marketing of product and services is referred to as e-marketing. The success e-commerce as submitted by Alfonso et al. (2021) and Choshin and Ghaffari (2017) depends on the extent of customers' satisfaction, access cost, awareness and available critical information infrastructure. Even more directly, Kwilinski et al. (2019) argued that the essence of all digital innovation in trading is to promote customer's satisfaction.

## Measurement of Customer Satisfaction

The study of customer satisfaction cannot be underestimated, given the significance attached to customer satisfaction by marketing theory and practice. Hence, comprehending the factors that affect customer satisfaction has long been a subject of study for marketing research. Based on the existing literature (Jiao Li, 2013), a number of research streams have been identified, including but not limited to the following:

These indicators were popularized by a number of scholars prominent among which were:

- i. Image: Keller (1993), Bitner (1991), Grönroos (1984), Gummesson & Grönroos (1988), Nguyen & LeBlanc (1998), Zimmer & Golden (1988) and Grönroos (1984).
- ii. Price: Kotler, Keller, Ang, Leong & Tan (2009), Tse (2001), Rust & Oliver (1994), Monroe (1990) and Heskett, Sasser & Schlesinger (1997).

- iii. Perceived Quality: Zeithaml (1988), Parasuraman et al. (1985), Lehtinen & Lehtinen (1982), Lewis & Booms (1983), Gronroos (1984); Parasuraman, Zeithaml and Berry 1985; 1988 and Caruana (2002).
- iv. Product reliability: Parasuraman et al. (1988), Zeithaml, Bitner & Gremler (2006), Nguyen & Leblanc (2001) and Ndubisi (2006).
- v. Tangibility: Parasuraman et al., (1988), Zeithaml et al., (2006) and Bellini et al., (2005).
- vi. Empathy: Parasuraman et al. (1988), Zeithaml et al. (2006), Andaleeb & Conway, (2006).
- vii. Responsiveness: Parasuraman et al. (1988) and Zeithaml et al. (2006).
- viii. Assurance: Parasuraman et al. (1988), Zeithaml et al. (2006), Ndubisi, (2006), Lympieropoulos, Chaniotakis & Soureli (2006).

## **Methodology**

In this chapter, the methodology of the study is presented. Study variables from the literature review identified and the unit of measurement of each variable specified. It also involved the instrument, its design, method of administration, and finally, the methods employed in analyzing the data.

## **Research Design**

This study used questionnaires to collect data from customers of Konga's e-commerce platform in Ilorin metropolis, Kwara state. The study employed two sets of variables: customer satisfaction (dependent) and e-commerce (independent). Multiple regression analysis was used to predict the value of a dependent variable from a linear function of a set of independent variables.

## **Study Variables and measurement**

Four variables were derived from the research questions as follows:

- i. Demographic variables
- ii. Socio-Economic variables
- iii. User-friendly website variables
- iv. Customers satisfaction variables

## **Model Specification**

In examining the impact of e-commerce on customers' satisfaction in Ilorin metropolis, two models were formulated to test each hypothesis, which is considered relevant to the data collected using inferential statistics. The model is given thus:

$$Y = f(x_1, x_2, x_3 \dots x_n) + e$$

Where Y represent the factors of a user-friendly website

$X_1$  = Effective navigation

$X_2$  = Readable content

$X_3$  = Aesthetic image

$X_4$  = Privacy, and Security

$$Y = f(x_1, x_2, x_3 \dots x_n) + e$$

Where Y represent the factors of customer satisfaction

$X_1$  = Convenience

$X_2$  = Timely service

$X_3$  = Competitive advantage

$X_4$  = Data Privacy

### **Population of Study**

The targeted population of this study is the users of Konga.com e-commerce platform in Ilorin metropolis, Kwara State' which consists of three (3) local government areas; Ilorin East, Ilorin South, and Ilorin West.

### **Sample Size and Sampling Techniques**

Practically, it is infeasible to study all the customers of Konga.com in Ilorin metropolis, Kwara state. Hence, three hundred and eighty-four (384) customers were sampled in the state. The sampling technique employed in the study is a purposive sampling technique, which involves random sampling of customers that are conveniently available as at the time of the study.

### **Data Processing and Method of Data Analysis**

Data obtained were analyzed using descriptive and inferential statistics where appropriate. A level of 0.05 was chosen to be significant.

### **Research Instrumentation**

A self-administrated closed-ended questionnaire was developed and distributed to 384 customers who had used the Konga.com e-commerce service at a particular time. The questionnaire consists of 28 questions in two sections as follows:

- (1) The first section of the questionnaire gathered data about the respondents' demographic characteristics;
- (2) The second section entails questions relating to the socio-economic characteristics;
- (3) The third section contains questions mainly to assess the influence of website design on user-friendliness; and
- (4) The fourth section contains questions on the examination of the payment system on customers' satisfaction.

The scale for measuring the image agreement was a 5 points Likert type scale; with 5 being strongly agree, 4 agreed, 3 undecided, 2 disagreed, 1 strongly disagreed.

### **Data Analysis and Discussion of Findings**

#### **Findings and Discussion**

In order to analyze the first hypothesis which states that there is no significant relationship between website design and its effect on user-friendliness, factor analysis was employed and presented in Table I.



**Table 1 Factor Analysis Result of Varimax Rotated Component of website design Variables**

|                                       |                    | <b>VARIMAX</b>         |                   | <b>% of Variance</b> |  |
|---------------------------------------|--------------------|------------------------|-------------------|----------------------|--|
|                                       | <b>Reliability</b> | <b>Rotated Loading</b> | <b>Eigenvalue</b> | <b>Explained</b>     |  |
| <b>Factor1</b>                        |                    |                        |                   |                      |  |
| <b>‘Effective navigation’</b>         |                    |                        | 8.22              |                      |  |
|                                       | 30.53 0.960        |                        |                   |                      |  |
| Timeliness of service                 |                    | 0.644                  |                   |                      |  |
| Responsiveness                        |                    | 0.804                  |                   |                      |  |
| Product and service support           |                    | 0.777                  |                   |                      |  |
| Appealing appearance                  |                    | 0.735                  |                   |                      |  |
| Connect with social media for support |                    | 0.717                  |                   |                      |  |
| Easy navigation                       |                    | 0.764                  |                   |                      |  |
| Effective color scheme                |                    | 0.797                  |                   |                      |  |
| Use efficiency                        |                    | 0.795                  |                   |                      |  |
| Descriptive navigation                |                    | 0.618                  |                   |                      |  |
| Interactive design                    |                    | 0.717                  |                   |                      |  |
| Accessibility                         |                    | 0.431                  |                   |                      |  |
| <b>Factor2</b>                        |                    |                        |                   |                      |  |
| <b>‘Readable content’</b>             |                    |                        | 3.37              | 12.21                |  |
|                                       | 0.839              |                        |                   |                      |  |
| Information content                   |                    | 0.688                  |                   |                      |  |
| Relevant content                      |                    | 0.730                  |                   |                      |  |
| Original content                      |                    | 0.719                  |                   |                      |  |
| Unambiguous articles                  |                    | 0.495                  |                   |                      |  |
| Short and concise description         |                    | 0.567                  |                   |                      |  |
| <b>Factor3</b>                        |                    |                        |                   |                      |  |
| <b>‘Aesthetic image’</b>              |                    |                        | 3.15              | 11.97                |  |
|                                       | 0.817              |                        |                   |                      |  |
| Descriptive image                     |                    | 0.524                  |                   |                      |  |
| Responsiveness                        |                    | 0.529                  |                   |                      |  |
| Sharp and realistic image             |                    | 0.711                  |                   |                      |  |
| Stock images                          |                    | 0.785                  |                   |                      |  |
| Scalable images                       |                    | 0.662                  |                   |                      |  |
| Appealing view                        |                    | 0.621                  |                   |                      |  |
| <b>Factor 4</b>                       |                    |                        |                   |                      |  |
| <b>‘Privacy and Security’</b>         |                    |                        | 2.51              |                      |  |
|                                       | 9.23 0.675         |                        |                   |                      |  |
| Encryption of data                    |                    | 0.522                  |                   |                      |  |
| Unsanctioned intrusion                |                    | 0.712                  |                   |                      |  |
| Two-factor authentication             |                    | 0.573                  |                   |                      |  |
| Data validation                       |                    | 0.661                  |                   |                      |  |

**Table 2 KMO and Bartlett's Test**

|  |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .947    |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 922.079 |
|  | Df                 | 200     |
|  | Sig.               | .000    |

Table I illustrates the result of the factor analysis with the varimax rotation. To generate the initial solution, the component factor method was used. (Eigenvalue  $\geq 1$ ) indicated that a four-factor solution explained 63.94 % before the rotation of overall variance. The four factors with twenty-six variables defined by the original twenty-six variables that loaded heavily (loading  $>0.50$ ) on them. The analysis generated a clear factor structure with relatively higher loading on the appropriate factors. Some variables loaded heavily on one factor while on other factors they did not load heavily. It indicated that there was a minimal overlap among these factors and it reflected as well that all the factors were independent structures. The higher loadings signed the correlation of the variables with the factors on which they loaded.

Composite reliability of a construct was calculated to measure the internal consistency of each of the four-factor indicators with a sample size of 384. The result showed that the alpha coefficients of service quality for all four factors ranging from 0.68 to 0.96, exceeded the recommended minimum level of 0.50 which is the minimum value for accepting the reliability test (Nunnally, 1967), then the result of factor analysis in this study are considered reliable. These four dimensions were perceived as important factors by the customers.

An exploratory factor analysis was performed using principal component with the Orthogonal (VARIMAX) rotated factor matrix. For the purpose of interpretation of factors, loading cut off point of 0.50 was considered in this study with the use of a  $P \leq 0.05$ . Since the sample size of this study is 384 then it was appropriate for exploratory factor analysis. In addition, the correlation matrix overall significance was 0.000 with a Bartlett test of Sphericity value of 922.079 it shows that the data Matrix had sufficient correlation to the factor analysis. The Kaiser-Meyer-Olkin overall Measure of Sampling Adequacy (MSA) was 0.947 which was meritorious, indicating the appropriateness of using exploratory factor analysis for the factors influencing market share.

Conclusively, the above explanations justify the rejection of the null hypothesis and the acceptance of the alternative. Hence, there are factors influencing the user-friendliness of Konga's website, and optimum consideration must be given to these factors for improved user-friendliness.

For the second hypothesis which states that there is no significant relationship between the payment system and customers' satisfaction, multiple regression was employed and presented in Table II

**Table 3 Results of Regression Analysis of the payment system on customers' satisfaction.**

| Model Summary   |                |          |                   |                            |        |
|---|----------------|----------|-------------------|----------------------------|--------|
| Model   | R              | R Square | Adjusted R Square | Std. Error of the Estimate |        |
| 1   | .615           | .579     | .564              | .278                       |        |
| a. Predictors: (Constant), convenience, timely service, competitive advantage |                |          |                   |                            |        |
| ANOVA   |                |          |                   |                            |        |
| Model   | Sum of Squares | df       | Mean Square       | F                          | Sig.   |
| Regression  | 35.761         | 4        | 8.940             |                            | 26.799 |
| .000  |                |          |                   |                            |        |
| Residual  | 58.714         | 196      | .334              |                            |        |
| Total   | 94.475         | 200      |                   |                            |        |

- a. Dependent Variable: customers' satisfaction  
b. Predictors: (Constant), convenience, timely service, competitive advantage

| <b>Variables in the equation Coefficients</b> |       |            |          |         |      |           |      |
|---|-------|------------|----------|---------|------|-----------|------|
| Variable                                      | B     | Std. Error | Std Beta | t       | Sig  | Tolerance | VIF  |
| (Constant)                                    | 4.500 | .043       |          | 104.211 | .000 |           |      |
| 'Convenience'                                 | .295  | .040       | .443     | .398    | .000 | .986      | 1.01 |
| 'Timely service'                              | .230  | .043       | .326     | 5.408   | .000 | .970      |      |
|   | 1.03  |            |          |         |      |           |      |
| 'Competitive advantage'                       | .213  | .0412      | .236     | 4.951   | .000 | .943      |      |
|   | 1.02  |            |          |         |      |           |      |
| 'Data privacy'                                | .211  | .044       | .289     | 4.837   | .000 | .990      | 1.01 |

- a Dependent Variable: customers' satisfaction

The multiple regression analysis was used to evaluate the sustainability of payment system on customers' satisfaction. Table II represents the result of the overall ease of the payment system that was regressed against the customers' satisfaction derived from the factor analysis. The factors were developed previously and are used as the independent variables in the regression.

The multiple correlation coefficient (R) was 0.62. The equation characteristics of the level of survival indicated a moderate adjusted  $R^2$  of 0.56. This reflected that 56% of the variation in "Customers' satisfaction" was explained by this equation. The F-ratio of 26.799 was significant (Prob<0.000) of customers' satisfaction indicating that the results of the equation could hardly occur by chance and the regression model has meaningfully explained the data.

The t-statistic test used to test whether the four independent variables contributed information to the predictor of the dependent variable 'payment system'. The t value in this study was found to be significant at 0.05 levels. The four factors emerged to be significant (Sig. T <0.05) independent variables in the regression model. The partial correlation coefficient  $\beta$  was used to indicate the impact. The result indicated that the factor with the greatest effect was 'Convenience' ( $\beta = 0.30$ , Prob. <0.000), followed by 'Timely service' ( $\beta = 0.23$ , Prob. <0.000), 'Competitive advantage' ( $\beta = 0.21$ , Prob. <0.000, and 'Data privacy' ( $\beta = 0.21$ , Prob.

<0.000). The result predicted that, on average, the probability of customer overall satisfaction changes by 0.95 (0.30+0.23+0.21+.21) for each unit in the four variables. The regression model was written as follows:

$$\hat{y} = 4.50 + 0.295 x_1 + 0.230 x_2 + 0.213 x_3 + 0.211 x_4$$

Where,

$\hat{y}$  = Dependent variable 'Customers' satisfaction'

$x_1$  = Independent variable 'Convenience'

$x_2$  = Independent variable 'Timely Service',

$x_3$  = Independent variable 'Competitive Advantage',

$x_4$  = Independent variable 'Data Privacy'

The regression model shows the rejection of the null hypothesis and the acceptance of its alternative. Hence, there is a significant relationship between the payment system and customers' satisfaction. The result showed that the four coefficients carried positive signs which indicated a positive relationship between those variables and the dependent variable; 'customers' satisfaction.' It also confirmed that the overall satisfaction of the customers' depended largely on these four factors. Therefore, it was considered that the four factors were the best predictors of the overall satisfaction of the customers in this study.

## Discussion

These findings were in agreement with those of Boysen et al. (2019) and Escursell et al. (2020) who both upheld the assertion that the use of internet facilities for the promotion of product significantly affects the extent of satisfaction that customers derive from the use of e-commerce platforms, especially when timeliness, convenience, healthy competition and information privacy is ensured. However, the influence of the national ecological factors on the success of e-commerce cannot be over emphasized. As posited by Alfonso et al. (2021) and Choshin and Ghaffari (2017) for instance, e-commerce relies on the availability of digital information communication infrastructure to operate effectively and efficiently, so all hands must be on deck, especially that of the government who is the major financier of public infrastructure.

## Conclusion and Recommendations

The study aimed at evaluating the impact of e-commerce on customer's satisfaction using the indicators of convenience, timeliness, competitive advantages and data safety. With data gleaned from the website of Konga, the study found a positive correlation between customer satisfaction and the measure adopted indicators. It is from this background that the study concluded that e-commerce has significantly improved the level of customers' satisfaction, especially for online trading platforms like Konga.

However, findings of the study and those of the literature review showed the need for a progressive collaboration between the government and the online businesses, especially as regards the provision of ICT infrastructure. Going by this, this study opined that for customers to be satisfied with Koga's e-commerce services, it is essential to improve on the reliability of meeting request and specifications of buyers.

In addition, online trading companies must devote a lot of resources and expertise to understanding and meeting customer needs. Companies must create a secure payment system and design user-friendly web sites with procedures that customers can trust. The study, therefore, recommends that; Organizations involved in e-commerce should improve on its security so as to instill customers' confidence as it would actually lead to widespread usage of e-commerce services in Ilorin metropolis, Kwara state. Lastly, internet efficiency as a great

factor in determining satisfaction of customers, must be cheaply available to the populace to enable them leverage on the innovative ways of business transaction.

More particularly, Konga must be ready to liaise with ICT critical stakeholders like the government and communication service providers like MTN, Airtel, Etisalat, Globalcom and related stakeholders on how to make internet service available and affordable in Nigeria. Indirectly, doing this will boost the number of customers patronizing konga and related online product retailers and distributors and thereby boost their patronage and profit.

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