

## Impact of E-Commerce Applications on Non- Financial Performance of Selected Online Retail Enterprises in Lagos State, Nigeria

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**Abstract:** This study examined the impact of e-commerce applications on non-financial performance of selected online retail enterprises in Lagos State, Nigeria with emphasis on Jumia and Konga e-retail outlets. Three specific objectives were formulated for the study and they are; to investigate the effect of electronic advertising on customers' patronage in the selected online retail enterprise; to examine the influence of electronic customer service support system on customers' satisfaction in the selected online retail enterprise; and to evaluate the effect of e-order and delivery on customers' satisfaction in the selected online retail stores; The sample size was 384. Data was sourced through the use of a structured questionnaire and the study adopted purposive and stratified sampling technique. Descriptive statistics and regression analysis were both adopted as methods of data analysis. Results from the test of first hypothesis showed that electronic advertising had significant positive effect on customers' patronage with R<sup>2</sup> value = (0.619) and F (4, 379) = 153.969, p < 0.05. Also, the result of hypothesis two revealed that showed that customer service support system significantly had a positive effect on the level of customer's satisfaction with F (5, 378) = 9.214, p < 0.05. Furthermore, hypothesis three results revealed that e-order and delivery variables had significant and positive impact on customer's satisfaction with F (4, 379) = 105.212, p < 0.05. This study thus rejected all null hypotheses and accepted the alternative hypothesis and concludes that e-commerce applications variables had a positive impact on non-financial performance of the selected e-retail outlets. The study recommends that there is need for e-retail enterprises to maintain consistency in the quality of products/ services ordered online by customers and what is delivered to them, and priority should be given to customers' complaints through e-customers' service support system. Complaints most times are form of feedback and ability to provide solutions to these complaints puts the e-retail outlets in a much better way to serve the customers while providing utmost satisfaction.

**Keywords:** E-commerce; Non-financial performance; Electronic advertising; Customers' patronage

**JEL Classification:** L81

### 1 Introduction

Organizations adopt various means of measuring their corporate performance at regular intervals in order to make informed decisions that will benefit the enterprise and stakeholders. These measures of performance can take the form of quantitative mechanisms such as profitability, market share, liquidity etc. or qualitative measures which could encompass the level of the organizations effectiveness, efficiency, sustainability, etc. In this wise, these qualitative measures otherwise known as non-financial organizational performance measures are of different categories, however, the variables that are of utmost priority to this research work are 'customer-centric in nature' as they deal

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directly with the buyers of the products of online retail enterprises under study. Such variables are: customers' satisfaction, customers' loyalty and quality of service delivery are all influenced by e-commerce application variables (Ayoola & Ibrahim, 2020; Fenuga & Oladejo, 2018; Okolo et al., 2018; Pembi, 2016).

Information and Communication Technology (ICT) is one among the foremost important opportunities for facilitating and maintaining competitive enhancement in businesses worldwide (Amir & Behroz, 2018). E-commerce is one of the essential innovations of ICT and therefore the results of this technology have being an appropriate opportunity for various enterprises in their domestic and international exchanges (Huo et al. 2015; Amir & Behroz, 2018). E-commerce includes a variety of activities such as the electronic exchange of goods and services, digital requests for prompt delivery, money e-transfer, stock e-exchange, e-bills of lading, business strategies, marketing, and after-sales services (Amir, & Behroz, 2018). It entails conducting all business and personal transactions in a totally electronic environment, with all or parts of those transactions taking place over computer networks such as the internet.

Electronic commerce is important to businesses because it gives new means and chances for them to expand their participation in new markets. Electronic commerce is changing the marketplace by altering company models, affecting relationships between market actors, and contributing to market structure changes (Shahjee, 2016).

According to Pembi (2016), e-commerce is more than a means for sustaining and improving existing business methods; it is a paradigm shift that profoundly alters established business practices. According to Turban et al. (2002), e-Commerce is "an emerging concept that describes the practice of purchasing, selling, or exchanging services and information via computer networks," as referenced by Jovanovic (2020). E-commerce is advantageous as it encompasses channels through which easy communication with customers and international trading occurs as organizations that embrace the adoption of it can obtain more positive results amidst competition.

Electronic commerce not only expands the marketplace of enterprises to national and international markets, it decreases the fee of making processing, distributing and retrieving paper based information. It also reduces the transaction cost, which successfully brings about consumer empowerment. Shahjee (2016) classifies e-commerce into basically of five types and since its advent, e-commerce is changing all business functional areas and their important tasks, starting from advertising to paying bills and thus necessitating a substantive attention which has resulted in significant progress towards strategies, requirements and development of e-commerce applications. An organization is successful when its products and services meet expectations and requirements of shoppers and the end users, as such electronic commerce is an essentially recognized mechanism globally for business organizations to succeed in global markets.

In the research work of Pembi (2016), e-commerce applications that affects organizational performances are of five types viz-a viz: e-advertising, e- payment, e-customer service support system, e- marketing and e- order and delivery. Online retail stores like Jumia and Konga which are the case studies of this research work adopt these e-commerce applications in their respective operations in order to gain competitive advantage and improve their acceptance level by consumers and customers. E-commerce is growing quickly in Nigeria as a result of the presence, widespread and use of the net and therefore the awareness of firms in Information Technology is brought about by this invention. Thus, rapid proliferation of the web has allowed small scale industries and larger organizations to

maneuver towards electronic-commerce. That is, the supply of web/ internet based electronic stores is allowing markets to be expanded and products to be available internationally, thus enabling competitive advantage.

Jumia and Konga founded in Nigeria 2012 respectively represent two of the biggest online retail enterprises in Nigeria electronic commerce organization. These firms display and sell out their products with the use of e-commerce applications with products not limited to consumer electronics, home appliances, children's items, fashion, books, personal care products etc.

Extant Literatures has examined the influence of electronic commerce applications on the performance of small and medium enterprises and used online stores such as Konga as case study with the study of Adejoh (2018) as an example. This research work is among the few studies to use independent variables such as the ecommerce applications against dependent variables such as customers' loyalty, customers' satisfaction, customers and quality of service delivery. Thus, this study sought to examine the impact of e-commerce application on non-financial performance of online retail enterprises

Many individuals are of the opinion that there is variance in quality of products displayed in company's websites and what is delivered at the end of the day. It is in this regards that the study aims to specifically investigate the effect of e-order and delivery enablement on the level of satisfaction derivable by customers as well as show more explicitly the effect of the variable under consideration on the quality of products/service delivery by these online retail enterprises. Customers/consumers are more interested in a buying process where feedbacks and complaints can be attended to after a purchase has been made. In this wise, online stores adopts e-commerce application such as "electronic customer service support system". However, there are limitations to which these platforms can serve especially to those customers who want more of physical support and are not well kept abreast of the functionality of these applications or who are stark illiterate.

The last among the e-commerce applications as discussed by Afshar, et al., (2012) and Pembi, (2016) is the "electronic advertising" which is limited to the internet and other forms of digital platforms. Moving from an era of print or physical advertising which leaves a deeper footprint on customers' memory than the sole adoption of e-commerce thus create a gap of customers patronage.

Going forward, customers desire a seamless experience with the use of these e-commerce applications operated by online retail experience. An experience that ensures that the safety of e-payment is guaranteed with utmost confidentiality, as well as ensuring consistency in the quality of products/service delivered. An experience that prioritizes the utmost satisfaction of customers' when dealing with e-customer service support system is also an utmost hope for customers in the future. In this wise, the complaints and other feedbacks of customers are being attended to with a matter of urgency. Also, customers hope to witness inviting e-advertising platforms that will create a deep and impressive impression on them while outperforming the traditional print and media advertising. Hence, the study aims to examine the effect of e-advertising on customers' patronage in the selected e-commerce outlets.

Fenuga and Oladejo, (2020) examined the effect of electronic payment on customer's service thus creating a gap for other researchers on the need to investigate the effect of other e-commerce applications on business performance. The study of Fenuga and Oladejo (2020) on the effect of electronic payment on customer's service delivery in Nigeria Banks also created a vacuum to be filled by other researchers as the study examined only one variable out of the five variables of e-commerce applications whose effect was measured against customers' service delivery. The study gap of the

work of Fenuga and Oladejo (2020) is also identical to that of the studies of Ayoola and Ibrahim (2019) which only examined the effect of e- payment on just one of the five variables of e- commerce. That is, one dependent variable (customer satisfaction) was only examined in the research work of Ayoola and Ibrahim (2019).

These studies emphasized that the use of e-payment as medium of exchange creates the problems of trust and loyalty among customers thus needing organizations to step up their antics in ensuring that the use of this e-commerce platform stimulate customers' loyalty, satisfaction and ultimately their trust. It is therefore paramount for this study to investigate whether the use of e-payment as medium of settlement for goods delivered or services rendered influences the loyalty of customers of these e-retail outlets.

Adejoh (2018) while investigating the role of e-commerce development of online market only used Konga as a case study thereby creating the need for other studies to work on a broader population by including giant e- retail enterprises like Jumia.

Other studies with emphasis on Pembri (2016), though examined all the independent variables under consideration, however used business processes (management, operational and supportive) as the criterion variable. Other studies which reference to Jahanshahi (2012) whose findings might not be too relevant in this present day economy filled with uncertainty and a dynamic environment thus create a gap to ascertain the effect of these e-applications on present day customers and how it affects online enterprises performance. These extant literatures have not considered using e-commerce applications on all of the dependent variables under investigation with reference to customers' patronage, customers' satisfaction, customers' loyalty and quality of service delivery. With emphasis on the above submission, this research work intends to examine the impact of e-commerce applications on the performance of selected online retail enterprises in Lagos State, Nigeria with emphasis on customer centric performance measures.

In line with achieving the objectives of this study, the following hypotheses were tested in this study

H01: Electronic advertising has no significant effect on customers' patronage in the selected online retail enterprise

H02: Electronic customer service support system has no significant influence on customers' satisfaction in Jumia and Konga.

H03: There is no significant effect of e- order and delivery on customers' satisfaction in the selected online retail stores.

## **2. Literature Review**

### **2.1. Conceptual Review**

Electronic commerce, or e-commerce, is the purchasing and selling of goods and services over electronic systems such as the internet or other computer networks (Akanbi & Akintunde, 2018). This definition is consistent with that of Bhat et al., (2016), who define e-commerce as the buying and selling of goods and services, as well as the transmission of money or data, over an electronic platform, primarily the internet. Electronic funds transfer, supply chain management, internet marketing, online transaction processing, electronic data exchange (EDI), inventory management systems, and automatic data gathering systems are all examples of ICT technologies used in e-commerce.

According to Amir, & Behroz, (2018), e-commerce includes activities such as goods and service e-exchange; digital requests prompt delivery, e- money transfer, e- stock exchange, e-bill of lading, business strategies, marketing, and after-sales services. E-commerce refers to all actions taken by businesses and individuals for the purpose of exchanging goods and services in a fully electronic environment in which all or parts of such activities are carried out over computer networks such as the internet. Marketing, job search, online banking, mobile business, merchants, e-government, e-purchase, and online publication are among the applications of e-commerce, according to Hsu & Chuang (2014).

Electronic commerce is beneficial for companies because it generally provides new ways and opportunities for businesses to expand their participation into new markets.

As a result, Pembi (2016) sees e-commerce as more than just a mechanism to sustain and enhance existing business practices; it encompasses a paradigm shift that is radically responsible for changing traditional business practices. Electronic-commerce is defined as the use of electronic communications and digital information technology in enterprises to build, alter, and redefine relationships for the purpose of creating value between and among companies, as well as between companies and individuals.

Within the economic process and the development of a country, e-commerce plays a critical role. It is a sacrosanct activity that includes the planning, controlling, promotion, and distribution of various commodities and services (Shahjee, 2016).

### **2.2. Types of E-Commerce Applications and their Description**

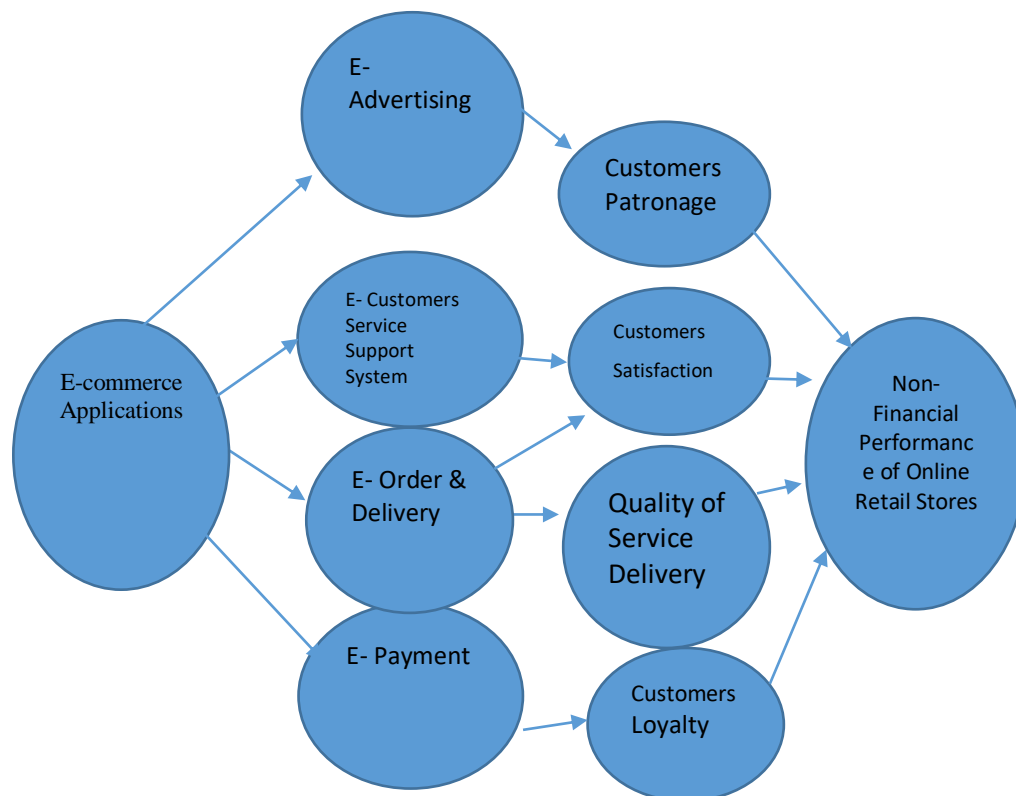
According to Pembi (2016), there are five types of e-commerce applications which include: e-advertising, e- payment, e-customer service support system, e-order and delivery and e- marketing. However, only four of these would be discussed on the criteria of the research objectives as e-marketing has no direct involvement in accomplishing the objectives of the study.

**Table 1. Types of E- Commerce Applications**

| S/N | Types of Electronic Commerce Applications  | Description   |
|-----|--|---|
| 1   | <b>Electronic Advertising</b>              | <ul style="list-style-type: none"> <li>• Provide product information to clients</li> <li>• Display corporate information on website Online</li> <li>• Online electronic brochures or buying guides</li> <li>• Only show products that are relevant to the specific customer</li> <li>• Electronic Customer Support Service</li> <li>• Online help-Frequently Asked Questions</li> </ul> |
| 2   | <b>Electronic Customer Support Service</b> | <ol style="list-style-type: none"> <li>1. Online handling of client feedback/questions</li> <li>2. Online application and registrations</li> <li>3. Personalization of e-mail communication</li> <li>4. Allowing a customer to contact a sales office</li> <li>5. Sharing information with competitors, customers, and suppliers</li> </ol>   |
| 3   | <b>Electronic Payment System</b>           | <ul style="list-style-type: none"> <li>• Electronic money</li> <li>• Smart and prepaid cards</li> <li>• Online procurement coordination with suppliers</li> <li>• Online product/service ordering</li> </ul>  |
| 4   | <b>Electronic Order and Delivery</b>       | <ul style="list-style-type: none"> <li>• Tracking incoming and departing products delivery</li> <li>• Online order entry and delivery</li> <li>• Electronic Data Interchange (EDI)</li> <li>• Lower costs for commercial transaction</li> </ul>   |

Source: Pembi (2016) and Jahanshahi et al. (2012)

The study’s conceptual framework is shown below:



**Figure 1. Research Framework (2022) designed by the researcher**



### **3. Theoretical Review**

#### **Technology Acceptance Model (TAM)**

Davis, Bagozzi, and Warshaw proposed the Technology Acceptance Model (TAM) (1987). TAM is a theory of information systems that describes how consumers come to embrace and use technology. When consumers are introduced with a brand new technology, the model argues that a variety of factors influence their decision about how and when they will utilize it. The TAM was created to be applied to any type of human–computer interaction (Davis et al., 1989). According to the TAM, two fundamental beliefs—PU and PEU—determine technological acceptance and are the primary presupposition of behavioral intents to utilize information technology. The primary belief PU, was the degree to which an individual or a group of individuals believed that a particular system would improve job performance in a given business (Davis et al., 1989).

The second major belief, PEU, indicates how much a person feels that using a given system will save them time and effort (Davis et al., 1989). This idea is relevant to the current study since e-commerce appears to provide convenience and improve job performance in businesses, but it takes time for customers to adopt it.

#### **Cue Utilization Theory**

Easterbrook (1959) proposed this idea, which states that items or services have a variety of cues that operate as quality indicators. This hypothesis divides cues that help consumers see quality as intrinsic and extrinsic to a product or service purchase into two categories. Physical characteristics of the merchandise, such as size or shape, are intrinsic cues in the case of manufactured goods, whereas extrinsic cues include the name and price. The value of e-commerce applications (such as e-advertising, e-customer service, e-payment, e-order, and delivery) in determining consumers' satisfaction, loyalty, and perceived quality of products and services is assessed using the cue utilization theory in this study.

#### **Empirical Review**

The relationship between e-commerce and company performance was investigated by Jovanovic et al. (2020). The study hypothesis says the impact of e-commerce on company performance is indirect, and hence must be investigated using mediating factors, one of which was the internet. The ordinary least-square (OLS) model was used in the study with data from the Flash Euro-barometer, making it secondary data. The study's findings revealed that the association between e-commerce and company performance is unfavorable, but that specific types of online sales channels can positively moderate the relationship. It concluded that when businesses use commercial and online markets, the benefits of e-commerce in terms of sales are more obvious.

The study also revealed that the interaction between e-commerce and search engines have a big effect on the firms' performance. The study thus create a gap for the use of primary data, use of specific e-commerce application and for the use of non- financial variables. Hence, other researchers working on similar studies can examine non -financial performance measures of business and as well identify specific variables to be examined from e-commerce adoption

Fenuga and Oladejo (2020) used a survey methodology and questionnaire to collect data on the impact of electronic payments on customer service delivery in Nigerian banks. The data collected was

analyzed using Chi square, multivariate analysis, and ANOVAs. . In Nigeria, electronic payments have been found to improve customer service delivery, management efficiency, profit, customer satisfaction, and sustainability. The study thus creates a gap for future studies to examine other e-commerce applications and their effects on business performance.

Ayoola and Ibrahim (2019) investigated the impact of electronic marketing, another essential component of e-commerce, on customer satisfaction in Nigerian aviation services. The investigation was conducted through a survey. Because of the large number of operating airlines in Nigeria, six of them were chosen as samples from the population of 18 domestic airlines. The data for this study was collected using a questionnaire from an estimated one hundred (100) customers, and the results were analyzed using both descriptive (tables, mean and standard deviation) and inferential statistics (regression analysis). According to the findings, search engine optimization and electronic marketing have a positive impact on customer satisfaction in Nigerian aviation services. A gap for future studies to examine other e-commerce applications and their impacts on business performance was created in this study.

Olasanmi (2019) looked at how online purchasing affects consumer satisfaction. It also looked into how various characteristics influenced customer happiness by encouraging them to shop online. With the help of a standardized questionnaire, primary data was gathered. The study's participants were persons from various occupations in Lagos, Nigeria, who had ever purchased products online, and the respondents were chosen using purposive and convenience sampling approaches.

The study found that different reasons for preferring specific online retailers were suggested, including convenience, access to more product information, and the ability to choose from a wide range of products based on the prices offered by competitors. It was also revealed that the cost of online shopping, as well as the level of awareness, time and convenience, product quality, and risks involved, all had significant effects on customer satisfaction. According to the findings, increased consumer satisfaction has a favorable and significant impact on online shopping outlets' continuous patronage.

#### **4. Methodology**

Based on the nature of this research, the study adopted exploratory survey design. This research design is the one that allows the respondents express their views on the information contained in the questionnaire thus giving them a chance of answering the questions at their own pace and convenience. Since this study considered the view of the respondents on the impact of e-commerce applications on non- financial performance of some selected online retail enterprises with centralization on customer centric variables using a well-structured questionnaire. Thus survey research design is considered appropriate for this study as it helps in predicting behavior.

Sometime is not possible to cover the entire population most especially if the population is too large due to time, insufficient resource and other factor, thus sample is needed in this kind of situation. For the purpose of this study, only the customers of the selected online retail enterprises (Jumia and Konga) who reside or operate in Lagos State were considered. Since the population under study is unknown, the researcher therefore employed Cochran's formula to determine the appropriate sample size from the unknown number of customer of the selected e-retail store in Lagos. The Cochran's formula is mathematically defined as:



$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

- $n_0$  = sample size
- $Z$  = the value of the normal curve that cut of an area (which is 1.96 from the z-statistics table)
- $p$  = the estimated proportion of an attribute that is presented in the population (0.5)
- $q = 1-p$  (0.5)
- $e$  = level of precision which 5%
- $n_0 = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2}$
- $n_0 = \frac{(1.8416)(0.5)(0.5)}{(0.0025)}$
- $n_0 = \frac{0.9604}{0.0025}$
- $n_0 = 384.16$

The appropriate sample size drawn and arrived at for this study from unknown population is approximately 384 which is an indication that about three hundred and eighty four (384) questionnaires were administered to the respondents

This study seeks to examine the impact of e-commerce applications on non- financial performance of online retails enterprises in Lagos State, Nigeria.. In an attempt to examine the relationship between e-commerce and performance of retails enterprise, this study adopts the model of Jahanshahi et al. (2012) who regressed e-commerce on organizational performance using electronic advertising, electronic payment system, electronic marketing, electronic customer support service system and electronic order and delivery to proxy e-commerce and financial performance, operational performance and market based performance to proxy organizational performance. These models are modified by replacing financial performance with quality (customer centric variables such as satisfaction, loyalty, quality of service delivery and patronage) performance since this study is strictly primary in nature. The model of this study is thus specified in its function as:

#### Model One

$$CPG = f(EAD) \quad \mathbf{1}$$

Where:

CPG = Customer Patronage

EAD = Electronic Advertising

$f$ =Function

#### Model Two

$$CSF = f(ECS) \quad \mathbf{2}$$

Where:

CSF = Customer Satisfaction

ECS = Electronic Customer Service Support System

$f$ =Function

### Model Three

$CSF = f(EOD)$

3

Where:

CSF = Customer Satisfaction

EOD = Electronic Order and Delivery

$f$ =Function\

## 5. Results and Discussion

### Hypothesis One

**H<sub>01</sub>:** Electronic advertising has no significant effect on customers' patronage in the selected online retail enterprise

**Table 2 A Summary of the Simple Linear Regression Analysis of the Relationship between electronic advertising and customer patronage**

| Model                                     | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|-------------------|----------|-------------------|----------------------------|
| 1   | .787 <sup>a</sup> | .619     | .615              | 2.78263                    |
| a. Predictors: (Constant), A1,A2,A3,A4    |                   |          |                   |                            |
| b. Dependent Variable: Customer Patronage |                   |          |                   |                            |

Source: Author's Computation, 2022

**Table 2** reveals a correlation co-efficient which is denoted by  $R = 0.787$  and this indicate a positive linear relationship between the dependent variable and the independent variable, the  $R^2$ value = (0.619) value from the table is the co-efficient of determination which is used in explaining percentage of variation in the dependent variable that is explain by the independent variable. This shows that electronic advertising variables have significant and positive impact on customer's patronage of customers of Jumia and Konga. Thus, the models predicting 61.9% customer's patronage of the variance in electronic advertising pooling all factors together enhances customer's patronage; meaning that 61.9% patronage of the variance in customers can be predicted from the electronic advertising of the e-retail to the customer's complaints about e-advertising captured in the models from the selected e-retail enterprises.

**Table 3. Simple Linear Regression Analysis Showing Significance of Predictors on Customers Patronage**

| ANOVA <sup>a</sup>                        |            |                |     |             |         |                   |
|---|------------|----------------|-----|-------------|---------|-------------------|
| Model                                     |            | Sum of Squares | Df  | Mean Square | F       | Sig.              |
| 1   | Regression | 4768.742       | 4   | 1192.185    | 153.969 | .000 <sup>b</sup> |
|   | Residual   | 2934.610       | 379 | 7.743       |         |                   |
|   | Total      | 7703.352       | 383 |             |         |                   |
| a. Dependent Variable: Customer Patronage |            |                |     |             |         |                   |
| b. Predictors: (Constant), A1,A2,A3,A4    |            |                |     |             |         |                   |

Source: Author's Computation, 2022

Table 3 reveals that the rate of client patronage was significantly predicted by electronic advertising variables. Since the value of  $F_{tab} > F_{cal}$ ,  $F(4, 379) = 153.969$ ,  $p < 0.05$  F – statistical shows that the whole regression model is highly statistically significant in terms of its goodness of fit. As a result, the null hypothesis is ruled out. The study finds that electronic advertising has a considerable favorable impact on client patronage to the chosen online retail enterprise.

**Table 4. Contribution of each Predictor on Customers Patronage variables**

| Coefficients                               |                        |                             |            |                           |        |      |
|--|------------------------|-----------------------------|------------|---------------------------|--------|------|
| Model                                      |                        | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|  |                        | B                           | Std. Error | Beta                      |        |      |
| 1  | (Constant)             | 7.039                       | .335       |                           | 21.036 | .000 |
|  | Electronic advertising | .582                        | .024       | .773                      | 16.587 | .002 |
| a. Dependent Variable: Customers Patronage |                        |                             |            |                           |        |      |

Source: Author's Computation, 2022.

The contribution of the predictors is shown in Table 4 shows that the electronic advertising variables had a Beta value of .773,  $p < .05$ , and a t-value of 16.587. Customers' patronage is statistically significant as a result of the donation. As a result, the null hypothesis is rejected, whereas the alternative hypothesis is accepted. The study shows that electronic advertising has a considerable impact on client loyalty to the chosen online retails enterprise.

## Hypothesis Two

**H<sub>02</sub>:** Electronic customer service support system has no significant influence on customers' satisfaction in Jumia and Konga

**Table 5. A Summary of Simple Linear Regression Analysis of the Relationship between electronic customer service support system and customer satisfaction.**

| Model Summary                                  |                   |          |                   |                            |
|--|-------------------|----------|-------------------|----------------------------|
| Model  | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1  | .330 <sup>a</sup> | .109     | .097              | 3.65236                    |
| a. Predictors: (Constant), SS1,SS2,SS3,SS4,S55 |                   |          |                   |                            |
| b. Dependent Variable: Customer Satisfaction   |                   |          |                   |                            |

Source: Author's Computation, 2022.

**Table 5** reveals a correlation co-efficient which is denoted by  $R = .330^a$  however this indicates a positive linear relationship between the dependent variable and the independent variable, the  $R^2$  value = (0.109).which is the co-efficient of determination was used in explaining percentage of variation in

the variable that is explained by the independent variable..  $R^2$  value = (0.109) shows that electronic customer service support system variables have low significant correlation and positive impact on customer's satisfaction in Jumia and Konga. Thus, the models predicting 10.9% customer's satisfaction of the variance in electronic customer service support system pooling all factors together enhances customer's satisfaction; meaning that 11% satisfaction of the variance in customers can be predicted from electronic customer service support system of the online e-retail enterprises to the customer's captured in the models from the selected online e-retail enterprises.

**Table 6. Simple Linear Regression Analysis Showing Significance of Predictors on Customers satisfaction.**

| ANOVA <sup>a</sup>                             |            |                |     |             |       |                   |
|--|------------|----------------|-----|-------------|-------|-------------------|
| Model  |            | Sum of Squares | Df  | Mean Square | F     | Sig.              |
| 1  | Regression | 614.577        | 5   | 122.915     | 9.214 | .000 <sup>b</sup> |
|  | Residual   | 5042.413       | 378 | 13.340      |       |                   |
|  | Total      | 5656.990       | 383 |             |       |                   |
| a. Dependent Variable: Customer Satisfaction   |            |                |     |             |       |                   |
| b. Predictors: (Constant), SS1,SS2,SS3,SS4,SS5 |            |                |     |             |       |                   |

Source: Author's Computation, 2022

Table 6 shows that customer' service support system variables significantly predicted the level of customer's satisfaction.  $F(5, 378) = 9.214$ ,  $p < 0.05$   $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis is rejected. The study concludes that electronic customer service support system has significant positive influence on customers' satisfaction in Jumia and Konga.

**Table 7. Contribution of each Predictor on Customers Satisfaction variables**

| Coefficients <sup>a</sup> |  |                             |            |                           |        |      |
|---------------------------|--|-----------------------------|------------|---------------------------|--------|------|
| Model                     |  | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|                           |  | B                           | Std. Error | Beta                      |        |      |
| 1                         | (Constant)                                 | 11.594                      | .774       |                           | 14.979 | .000 |
|                           | Electronic customer service support system | .105                        | .041       | .130                      | 4.398  | .011 |

a. Dependent Variable: Customers Satisfaction

Source: Author's Computation, 2022

The Table 7 shows the contribution of the predictors. In this case, the variables of electronic customer service support system contributed with Beta = .130,  $p < .05$  and t-value = 4.398. The contribution is statistically significant to customer's satisfaction. Hence, the null hypothesis is rejected and the study concludes that electronic customer service support system has significant influence on customers' satisfaction in Jumia and Konga.

### Hypothesis Three

**H<sub>03</sub>:** There is no significant effect of e- order and delivery on customers' satisfaction in the selected online retail stores

**Table 8. A Summary of the Simple Linear Regression Analysis of the Relationship between e-order and delivery and customer satisfaction**

| Model Summary                                |                   |          |                   |                            |
|--|-------------------|----------|-------------------|----------------------------|
| Model  | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1  | .725 <sup>a</sup> | .526     | .521              | 2.65943                    |
| a. Predictors: (Constant), O1,O2,O3,O4       |                   |          |                   |                            |
| b. Dependent Variable: Customer Satisfaction |                   |          |                   |                            |

Source: Author's Computation, 2022

Table 8 gives a correlation co-efficient which is denoted by  $R = .725^a$  this indicates a positive linear relationship between the dependent variable and the independent variable, the  $R^2$  value = (0.526) is the co-efficient of determination was used in explaining percentage of variation in the variable that is explained by the independent variable. This shows that e-order and delivery variables have significant and positive impact on customer's satisfaction in the selected online retail stores. Thus, the models predicting 52.6% customer's satisfaction of the variance in e-order and delivery pooling all factors together enhances customer's satisfaction; meaning that 53% satisfaction of the variance in customers can be predicted from the e- order and delivery captured in the models from the selected online retail stores.

**Table 9. Multiple Regression Analysis Showing Significance of Predictors on Customers satisfaction**

| ANOVA <sup>a</sup>                           |            |                |     |             |         |                   |
|--|------------|----------------|-----|-------------|---------|-------------------|
| Model  |            | Sum of Squares | Df  | Mean Square | F       | Sig.              |
| 1  | Regression | 2976.485       | 4   | 744.121     | 105.212 | .000 <sup>b</sup> |
|  | Residual   | 2680.505       | 379 | 7.073       |         |                   |
|  | Total      | 5656.990       | 383 |             |         |                   |
| a. Dependent Variable: Customer Satisfaction |            |                |     |             |         |                   |
| b. Predictors: (Constant), O1,O2,O3,O4       |            |                |     |             |         |                   |

Source: Author's Computation, 2022

Table 9 shows that e-order and delivery significantly predicted the level of customer's satisfaction.  $F(4, 379) = 105.212$ ,  $p < 0.05$   $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis is rejected. The study concludes that there is significant positive effect of e- order and delivery on customers' satisfaction in the selected online retail stores.

**Table 10. Contribution of each Predictor on Customers Satisfaction variables**

| Coefficients <sup>a</sup>                    |                       |                             |            |                           |        |      |
|--|-----------------------|-----------------------------|------------|---------------------------|--------|------|
| Model  |                       | Unstandardized Coefficients |            | Standardized Coefficients | T      | Sig. |
|  |                       | B                           | Std. Error | Beta                      |        |      |
| 1  | (Constant)            | 2.177                       | .592       |                           | 3.675  | .000 |
|  | e- order and delivery | .730                        | .035       | .733                      | 24.517 | .000 |
| a. Dependent Variable: Customer Satisfaction |                       |                             |            |                           |        |      |

Source: Author's Computation, 2022

The Table 10 shows the contribution of the predictors of e-order and delivery. e- Order and delivery variables had a Beta value = .733,  $p < .05$  and t-value = 24.517. The contribution is statistically significant to customer's satisfaction. Hence, the null hypothesis is rejected and the study concludes that there is significant positive effect of e- order and delivery on customers' satisfaction in the selected online retail stores.

## 6. Discussion of Findings

The first hypothesis which reads electronic advertising has no significant effect on customers' patronage in the selected online retail enterprise was tested and the model summary gives  $R^2$  value = (0.619). This shows that electronic advertising variables have significant and positive impact on customer's patronage of users of Jumia and Konga. Table 3 shows that electronic advertising variables significantly predicted the level of customer's patronage.  $F(4, 379) = 153.969, p < 0.05$   $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis was rejected. The study concludes that electronic advertising has significant positive effect on customers' patronage in the selected online retail enterprise.

The second hypothesis tested the effect of electronic customer service support system on customers' satisfaction in Jumia and Konga. The model summary gives  $R^2$  value = (0.109). This shows that electronic customer service support system variables have low significant correlation and positive impact on customer's satisfaction in Jumia and Konga. Table 6 shows that customer service support system significantly predicted the level of customer's satisfaction.  $F(5, 378) = 9.214, p < 0.05$   $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis was rejected. The study concludes that electronic customer service support system has significant influence on customers' satisfaction in Jumia and Konga.

The third hypothesis tested the significant effect of e-order and delivery on customers' satisfaction in the selected online retail stores. The model summary gives  $R^2$  value = (0.526). This shows that e-order and delivery variables have significant and positive impact on customer's satisfaction in the selected online retail stores. Table 7 shows that e-order and delivery significantly predicted the level of customer's satisfaction.  $F(4, 379) = 105.212, p < 0.05$   $F$  – statistical indicates that the overall regression model is highly statistically significant in terms of its goodness of fit since the value of  $F_{tab} > F_{cal}$ . Therefore, null hypothesis was rejected. The study concludes that there is significant positive effect of e-order and delivery on customers' satisfaction in the selected online retail stores.

## 7. Conclusion and Recommendations

Based on the study's findings, e-commerce applications were considered and concluded to be sacrosanct towards the attainment of e-enterprises' performance as it significantly and positively affects their level of customers' patronage/ loyalty, customers' satisfaction and quality of service delivery which were all considered to be customer centric in nature.

In this wise, the study concludes that despite the fact that e-advertising is limited to the use of the internet and other digital platforms, its use is found to have a significant positive effect on customers' patronage. In addition, irrespective of the enormous challenges with regards to the use of e-customer service support system, the platform is found to have a significant positive influence on customers' satisfaction and that e-order and delivery has significant positive effect on customers' satisfaction

Based on the findings on this study, the following policy recommendations were made:

There is need for e-retail enterprises to maintain consistency in the quality of products/ services ordered online by customers and what is delivered to them. This is because satisfied customers are



likely to patronize and remain loyal to such outlets in the future. Priority should be given to customers' complaints through e-customers' service support system. Complaints most times are form of feedback and ability to provide solutions to these complaints puts the e- retail outlets in a much better way to serve the customers while providing utmost satisfaction.

E- Retail outlets should invest more efficiently on electronic advertising like creating affiliated advertising links through Gmail and What Sapp, appealing websites etc. as it has a significant impact of influencing the level of customers' patronage.

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