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## E-COMMERCE AND MICRO AND SMALL ENTERPRISES INVESTMENTS IN CROSS RIVER STATE, NIGERIA

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### Abstract

*Background: Electronic commerce have been instrumental to the growth of businesses globally even though it has its own challenges and setbacks*

*Aims: This study assessed the impact of e-commerce on investments in Micro and Small Enterprises Calabar Metropolis. Specifically, it examined the impact of business to business commerce on investments in micro and small enterprises in Calabar Metropolis.*

*Methodology: The study adopted the survey design. The population of the study was 320 micro and small enterprises in Calabar Metropolis, the instrument of data collection was the questionnaire and the data collected was analyzed using the tobit regression technique.*

*Results/Findings: Findings from the Tobit regression showed that business to business commerce significantly impact on investments in micro and small enterprises in Calabar Metropolis. Thus, e-commerce influences investments in micro and small enterprises in Calabar Metropolis.*

*Conclusions: From the findings of the study, it is concluded that in order for the micro and small enterprises in Calabar Metropolis to continue to experience improved investments, there should be improvements in internet services by the service providers so that network issues can be reduced to the barest minimum. This will go a long way in speeding up business transactions between firms thus helping to improve sales, profits, and investments in the micro and small enterprises in Calabar Metropolis, Cross River State and Nigeria in general.*

**Keywords:** E-commerce, Micro and small enterprises, Investments, Tobit, Cross River State,

## 1. INTRODUCTION

In recent time, there has been a great shift in literature among scholars concerning the use of Information and Communication Technologies (ICT) towards the promotion of improved performance of an economy. This is particularly so with respect to e-commerce in developing countries. It has been observed that electronic commerce (e-commerce) offers buyers and sellers a new form of communication and provides an opportunity to create new marketplaces (Mahliza, 2019). Taking advantage of new methods to improve business processes can be a key factor for the success of companies. Faced with the challenges of economic globalization and competitiveness, electronic commerce can offer many benefits to firms, such as; reduction of costs (information exchange, transaction and marketing costs), access to geographically dispersed markets, reduction of delivery times, closer relationship with customers through more personalized marketing, ability to compete in more dimensions than price, and many more. Therefore, e-commerce decisions are more often treated not as a competitive advantage, but a necessity, which helps to avoid the lagging behind competitors (Lambe, Daniel and Abalaka, 2022). Customers also benefit from transacting via e-commerce because of its easiness and convenience (Dębkowska, 2017). The ability to remotely place digital orders saves both part of the time required to complete a transaction as well as the time spent searching for products. Computer-driven search engines allow buyers to search the inventories of thousands of stores in just seconds (Beck, Demircuc-Kunt and Maksimovic 2005).

E-commerce is the activity of electronically buying or selling of products on online services or over the internet. E-commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, internet marketing, online transaction processing, electronic data interchange (EDI) inventory management systems and automated data collection systems. E-commerce is in turn driven by the technological advances of the semiconductor industry and is the largest sectors of the electronics industry (Nduji & Oriaku, 2020). There are two forces that have led to the strong increase in e-commerce: the great progress of technology, and the massive growth of the number of the internet users. Moreover, e-commerce plays a very important role in this growth and this is because electronic commerce has strongly changed the relationship between companies and their customers.

Nigeria is the 33rd largest market for E-commerce with a revenue of US\$7 billion in 2021, placing it ahead of Denmark and behind Colombia. With an increase of 30%, the Nigerian e-commerce market contributed to the worldwide growth rate of 29% in 2021. Although the aggregate e-commerce sales figures have been significantly growing in recent years, the question is whether companies that implement e-commerce in Nigeria has been able to improve their productivity and service delivery, (Lambe, Daniel

and Abalaka, 2022). It is based on these backgrounds that this study investigate the impacts of e-commerce on investments in micro and small enterprises.

Although the edge of using electronic commerce in a business are plentiful, several challenges are faced by businesses using electronic commerce. This occurs in respect of the hindrance witnessed by small scale business implementing electronic commerce such as limited awareness about the innovation and the financial implication, less knowledge on the relevance of electronic commerce, inexperienced support staff, abstract nature, discomfort felt by user, rigidity of the process and network complication, (Labanauskaitė & Osamede, 2021)

In addition, Oyelaran-Oyeyinka and Adeya (2003) have identified some problems with respect to the use of e-commerce such as finance, learning process and understanding of technology, limited access to internet and issue of network. Beck and Weitzel (2005) emphasized that the readiness challenge of implementing new technology, and ability to improve the low capacity of production are issues faced by small scale business. Large percentage of businesses do not possess the funds and support mechanism to implement electronic commerce at over level of operation (Ojukwu, 2006).

Despite the growing focus on e-commerce in Nigeria, not all the online companies are moving at the same pace; some still have not overcome many obstacles that revolve around three major pieces of the e-commerce puzzle viz-a-viz money, technology and people. Needless to say, that sometimes the difference in attitude to e-commerce practices among Nigerian firms may be the problem; it may be the cost associated with e-commerce implementation; poorly designed websites which may not be functional always; technical know-how; and fraudulent tendencies among others (Kariuki, 2020).

Another problem confronting e-commerce development in Nigeria may be in term of internet fraud where some people may collect credit information of consumers and use it as a means of duping them. This is a serious issue that makes some people to be skeptical of engaging in buying online especially in Nigeria where the issue of cybercrime is very serious. Cybercrime is a great threat to e-commerce in the world and specifically in Nigeria, (Adejoh, 2018). With this, company sales may be hampered and the detrimental effect of this is low productivity or inability of the firm to cover the cost of production as well as inefficient service delivery to customers.

The existence of the aforementioned benefits and costs of e-commerce means that it can have both positive and negative effects on an economy. This possibility, given the growth rate of utilization of e-commerce platforms such as Konga and Jumia in

Nigeria raises questions as to the impact on the economy. This is especially so with respect to the sub-national economies such as that of Cross River State and Calabar Metropolis in particular. The question which arises is stated as follows: what is the impact of e-commerce on investments in Micro and Small Enterprises Calabar Metropolis. This study aims at assessing the impact of e-commerce on investments in Micro and Small Enterprises Calabar Metropolis.

From the review of past studies, to the best of my knowledge, no researcher has investigated the impact of e-commerce on investments in Micro and Small Enterprises in Calabar Metropolis, Cross River State, Nigeria. Labanauskaite and Osamede (2021) examined the impact of electronic commerce on small scale business in Lagos Nigeria. Similarly, Mahliza (2019) studied the influence of e-commerce adoption using social media towards business performance of micro enterprises, while Okeke and Ezeaghaego (2016) examined the effects of e-commerce on the growth of small scale enterprises in Anambra State. Mahliza (2019) studied the influence of e-commerce adoption using social media towards business performance of micro enterprises. Thus this study will attempt to fill this gap.

The paper is structured into five sections. After this introductory section, section two reviews related literature. The methodology is discussed in the third section. Section four comprises results and discussion of findings, and finally, section five draws conclusions based on the findings and recommends the way forward.

## 2. LITERATURE REVIEW

### 2.1. Literature review

#### 2.1.1. Conceptual literature

##### i. E-commerce

E-commerce refers to a system that enables bank customers to get access to their accounts and general information on bank products and services through the use of bank's website without the intervention of or inconveniences of sending letters, taxes, original signatures and telephone conformations (Henry 2000; Thulani, Tofara and Longton 2009).

According to the Organization for Economic Cooperation and Development (OECD) (2009), "an E-Commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online.

Khan (2016) is aligned with the OECD's definition of E-Commerce. Khan (2016), broadens the scope to include the process of information exchange and price comparison as an additional part of the E-Commerce world. Müller-Hagedorn (2000) confirms this by defining E-Commerce as a commercial transaction that does not have to be carried out fully electronically. Thus, payment and delivery can also take place manually. In addition, the exchange or gifting of products and services that are carried out online do not fall within the E-Commerce definition. In its "Work Programme on Electronic Commerce", the WTO (1998) defines E-Commerce as "the production, distribution, marketing, sale or delivery of goods and services by electronic means" (WTO, 1998). In summary, E-Commerce as a trade between buyers and sellers in which at least part of the process takes place electronically.

In this study, e-commerce is viewed from the perspective of the OECD (2009), Khan (2016) and Muller-Hagedorn (2000).

##### ii. Micro and Small Enterprises

As in developed economies, Nigeria with the introduction of the National Policy on MSMEs has addressed the issue of definition as to what constitutes micro, small and medium enterprises. Micro Enterprises are those enterprises whose total assets (excluding land and buildings) are less than Five Million Naira with a workforce not exceeding ten employees; Small Enterprises are those enterprises whose total assets (excluding land and building) are above Five Million Naira but not exceeding Fifty Million Naira with a total workforce of above ten, but not exceeding forty-nine employees while Medium Enterprises are those enterprises with total assets excluding land and building) are above Fifty Million Naira, but not exceeding Five Hundred Million Naira with a total workforce of between 50 and 199 employees., (SMEDAN, 2013).

#### 2.1.2. Empirical review

Labanauskaite and Osamede (2021) examined the impact of electronic commerce on small scale business in Lagos Nigeria using descriptive statistics such as mean measure and one sample statistics. The finding of this study reveals that electronic commerce has offered profitable services to small scale business holders, reduced transaction delay usually encounter by customers, business men and women, and also enhance communication skills with partners.

Mahliza (2019) studied the influence of e-commerce adoption using social media towards business performance of micro enterprises in Jakarta region. Data were analyzed using structural equation modeling with Partial Least Square (PLS). The results revealed that e-commerce adoption using social media conducted by micro enterprises is influenced by perceived benefits and external environment. The results revealed that the owner characteristics has no significant effect on ecommerce adoption. It indicates that micro enterprises who adopt ecommerce using social media were influenced by perceived benefits and external environment but they were not influenced by their characteristics of knowledge and skill in information technologies. The e-commerce adoption also proved to have a positive effect on business performance of micro enterprises. Micro enterprises who adopt ecommerce using social media feel that profits are increasing, the sales volume of products is growing and the area of marketing is expanding. The study concluded that the adoption of e-commerce using social media by micro enterprises has proven to influence business performance.

Okeke and Ezeaghaego (2016) examined the effects of e-commerce on the growth of small scale enterprises in Anambra State. The data generated were analyzed using percentage analysis while the hypotheses formulated were tested using Z-test statistics. The study found that business-to-customer (B2C) exerts significant effect on the performance of small scale enterprises. It also revealed that E-commerce adoption has significant effect on growth of small scale enterprises. It was recommended that small scale enterprises yet to adopt e-commerce technology should do so to remain competitive in their industries.

Asdren and Besnik (2013) investigated the impact of e-commerce through electronic transactions on economic growth in the Western Balkans during the period 2008 to 2020. The study applies the quantitative methodology using secondary data. The study used panel data techniques, starting with estimators pooled OLS, fixed effects, random effects, and Hausman Taylor – IV. The findings show that e-commerce does not contribute to economic growth in the Western Balkan countries for the study period.

Lambe, Daniel and Abalaka (2022) examined the effect of e-commerce on financial performance of listed food and beverage firms in Nigeria for the period 2011 to 2021. Findings from the panel multiple regression technique reveals that Business to Business (B2B) e-commerce have positive and insignificant effect on Return on sales (financial performance) while Business to Client (B2C) e-commerce also have positive and insignificant effect on financial performance. The study concluded that substitution effect may exist between the sales by physical channels and e-commerce sales. The study recommends that a strong commitment, which involves both B2B and B2C e-commerce, is needed to obtain financial performance in the short term. Also, companies should jointly adopt B2B and B2C e-commerce to boost performance levels higher than those of their non-adopting counterparts.

Konings and Roodhooft (2020) evaluated effect of e-business on corporate performance firm level evidence for Belgium. Findings from the study revealed that E-business has no effect on total factor productivity in small firms, however, we find positive effects on performance of e-business in large firms. The study recommended a new research agenda. Ideally, we should have panel data to allow to assess the dynamic features of e-commerce on firm performance and to control for potential endogeneity of e-commerce.

Nduji and Oriaku (2020) investigated the effect of e-commerce on performance of commercial banks (A case study of first bank plc, Bwari Area Council, Abuja). The study adopted a Survey design. The sample size of was determined using the popular Taro Yamani formula (1964) which gave a sample size of 246. The study relied on only on the primary data. The questionnaire was the instrument used for data collection. The hypotheses were tested using Regression analysis. According to the findings, electronic trading has a significant effect on performance of First Bank Plc, Bwari area council, Abuja, Online delivery has significantly influenced on customer satisfaction and there is a significant relationship between online sourcing and efficiency of first bank plc, Bwari area council, Abuja. The study concluded that e-commerce boosts and promotes organizational performance, makes organizations, banks and other financial service providers to become competitively advantageous and reduces operational cost. Anything less, would be undesirable as it is easier to arouse a demand, etc.

Kariuki (2020) explored the ethics of business-to-business electronic commerce with focus on banking sector. The researchers had chosen a case study of online foreign exchange developments at an investment bank. The study adopted survey research design using SPSS statistical tools to analysis the variables. The important areas include freedom of choice, trust and transparency of business-to-business transaction and limits to responsibility with regard to facilitation of fraud. The authors found that e-banking had forced the banking sector to recognize, restructure and reconsider its institutional arrangements. The study concluded that e banking services would be successful for banks only if fraudulent activities could be controlled. The study recommended that transparency in transaction should be maintained, ethical rules and regulation to be followed so that e-banking could be widely acceptable among customers.

Pedro, *et al* (2019) investigated the impact of e-commerce sales on profitability and revenue in the Manufacturing Industry. The research covered an eight-year period 2008 to 2015. 2,544 Spanish companies belonging to the manufacturing sector were analyzed.

Results showed that neither business-to-business (B2B) nor business-to-consumers (B2C) e-commerce seem to have influence on the revenue growth. Therefore, a substitution effect may exist between the sales by physical channels and e-commerce sales. However, the authors have found evidence that companies which adopt a high level of e-commerce (B2B and B2C simultaneously) immediately experience increase in their profitability. Moreover, if firms adopt only B2B or B2C the positive effects on profitability are achieved in the year subsequent to that of the measurement of the e-commerce status.

Adejoh (2018) examined the role of electronic commerce in promoting the development of emerging online market firm the case of Konga. The study used a descriptive research design in gathering data from employee working in Konga. One Hundred and Twenty-Seven male and female employee working in this organization were involved in the study. The study participants were selected using convenience sampling techniques. The data gathered from the respondents were analyzed with both descriptive and inferential statistics. One hypothesis was tested using multiple regression analysis at 0.05% level of significant. The analysis reveals that e-commerce would significantly have influence { $F(1,126) = 25.270, R^2 = .168, P < 0.05$ } on developing market of Konga online marketplace. In addition, the analysis shows that 16.8% variation in developing market of Konga online marketplace can be explained by the level of e-commerce adopted. E-commerce adoption strategies significantly improve the firm growth and development.

Bananda (2017) assessed the impact of e-commerce on financial performance of banks in Nigeria. The study employs the use of survey research method and sample of nineteen banks were selected, questionnaire was administered, collected and analyzed with the help of SPSS version 20.0. The result showed that there is increase of 5.88 per cent in net assets, 77.19 per cent increase of earnings per share, 41.13 per cent increase in return on capital employed and 53.13 per cent increase in total deposits by the customers of the banks. This study concluded that the banks have experienced transformation during the post e-commerce era in their operations. The result also showed positive impact of e-commerce on corporate financial performance in the banks in Nigeria, since four out of the five variables indicates positive increases.

Ugo and Awulika (2015) explored the benefits of e-commerce and the challenges of e-commerce that inhibit its successful operation in Nigeria. Survey research was adopted for this study. The questionnaire was designed and administered randomly to 1200 respondents. Collected data were analysed using Statistical Package for Social Science (SPSS). The findings indicate that the major benefits of e-commerce adoption in Nigeria are increased sales, competitive advantage, customer loyalty, increased automation of processes, extended application of new technology, better knowledge management, and enhanced well-being and education of customer. The key challenges identified in the Nigerian context include power outages and frequent power interruption, insecurity, technology cost, lack of trust in web retailers, software compatibility, and acquisition of IT skilled personnel. The study recommends, among other issues, the need for adequate publicity on e-commerce with emphasis on e-shopping, e-banking, and e-business.

## 2.2. Theoretical framework

### 2.2.1. Technological Organizational Environment (TOE) Framework

TOE framework was developed by Torntzky and Fleischer in 1990. The theory explains how Technology, organisation and environment factors influence an organisation in adopting a new technology.

Assumptions of TOE:

Tornatzky and Fleischer identified three contextual aspects that influence the adoption of technological innovation:

- a) technological context
- b) organizational context, and
- c) environmental context.

The focus of the TOE framework is on internal organizational attributes such as top management support, organizational size, and technological and financial readiness of the organization.

According to Tornatzky and Fleischer (1990), the technological context considers the available technologies that are of importance to the firm, both internally and externally that might increase the firm's productivity. The organisational context considers the resources available to support the acceptance of technology. These criteria include firm's size and scope; interconnectedness, managerial structure, centralization, formalization, amount of slack resources, the quality and availability of the firm's human resources. The environmental context refers to the setting in which the firm conducts business and influenced by its industry. This environment context support firm growth theory (Gibrat Law) called "Law of Proportionate Effect" and it states that the factors that affect the growth of a firm is not only related to the firm but also to its environment.

Weaknesses of the TOE:

Zhu, Kraemer, Xu and Dedrick (2004), argued that one pertinent factor in the technological context that affects the adoption of e-business is "technology readiness." Similarly, these authors argue that "firm size," "global scope," and "financial resources" are the pertinent factors that should be studied to understand how the organizational context affects the adoption of e-business.

### 2.3.1. Types of E-Commerce

The types of E-Commerce are defined by who is selling and who is buying. Schneider (2016) states that there are 5 different types; "business-to-consumer, business-to-business, transactions and business processes, consumer-to-consumer, and business-to-government" (Schneider, 2016). Business-to-business (B2B) and business-to-consumer (B2C) are best known. B2B generates a significantly larger share of sales than B2C (Schneider, 2016). Sellers and buyers can engage in multiple types of E-Commerce. For example, intermediate products may be sold by other companies in B2B commerce, and after assembly, the final products are resold to the end consumer in B2C commerce. In the following, we will look at these two types while also considering consumer-to-consumer (C2C) commerce.

#### Business to Business (B2B) commerce

In B2B commerce, companies sell products or services to other companies (Schneider, 2016). When Microsoft sells its software to Volkswagen, this transaction is called B2B commerce. Mourya & Gupta (2015) and Riehm (2005) state that this E-Commerce type accounts for more than 90% of the total volume of E-Commerce.

#### Business to customers (B2C) commerce

B2C commerce occurs when "business sell products or services to individual customers" (Schneider, 2016, p. 8). This commerce takes place, for example, when a private individual buys a product

from companies such as Amazon (Mourya & Gupta, 2015). B2C has the highest number of transactions compared to the other E-Commerce types (dos Santos et al., 2017).

#### Customers to customers (C2C) commerce

C2C represents the smallest share of sales among the three E-Commerce types. C2C means that people trade products and services online (Schneider, 2016). An example is "eBay Kleinanzeigen," a German online marketplace where anyone can sell and buy products. Since individuals selling products can also be considered businesses, this E-Commerce type more often falls into the B2C realm (Schneider, 2016).

## 3. RESEARCH METHODOLOGY

### 3.1. Research Design

This study adopted a survey design to establish the impacts of e-commerce on Nigerian economy. Survey research studies involves selecting and studying samples chosen from the population to discover the interrelations of the variables, (Ndiyo, 2005). The survey design is relevant in studies where questionnaires are utilized for the purpose of data collection. The researcher choose survey design due to its compatibility with the study situation which is evaluative and opinion oriented, therefore, enable the research discover the inter-relations between variables and the use of questionnaires and interviews as means of data collection.

### 3.2. Study area

The study area is Calabar Metropolis. Calabar metropolis comprised of two local government areas (Calabar Municipality and Calabar South Local Government Areas). Calabar Metropolis is the capital of Cross River State. Calabar is often described as the tourism capital of Nigeria. It has an area of 406 square kilometers and a population of 321,022 as at 2006 census. Calabar metropolis is sandwiched between the Great Kwa River to the East and the Calabar River to the West.

### 3.3. Population of study

The target population of the study comprised of three hundred and seventy (370) randomly selected micro and small enterprises in Calabar metropolis.

### 3.4. Sampling technique and sample size

The simple random sampling technique will be used to select the sample of three hundred and seventy (320) respondents drawn from owners of randomly selected micro and small enterprises in Calabar Metropolis, in Cross River State. In Calabar Municipality, a sample of one hundred and sixty (160) respondents was chosen while in Calabar South, a sample of one hundred and sixty (160) respondents was also chosen. The total sample size for the study is 320 respondents.

### 3.5. Sources of data

The sources of data for this study were grouped into primary and secondary sources.

The primary sources consist of first-hand information obtained from respondents in the course of field work. The questionnaire make up the primary data for this study. On the other hand, the secondary sources of data consisted of journals and other documents on the major variables of the study.

### 3.6. Instrument for data collection

The main instrument for data collection was the questionnaire. The questionnaire reflect the research's topic which was design by the researcher with the help of the supervisor. The questionnaire will contain two sections 'A' and 'B'. Section 'A' was designed to

capture demographic information (personal data) of the respondents while Section 'B' was designed to capture items that require opinion of the respondents on the subject matter with boxes provided for respondents to tick (✓) the option that best suit their opinion. Data for the study were primarily obtained through questionnaire designed to reflect four (4) point Likert scale.

**3.7. Method of data analysis**

A logistic regression analysis was employed for the analysis of data. Logistic regression applies maximum likelihood estimation after transforming the dependent into a logit variable (the natural log of the odds of the dependent occurring or not). In this way, logistic regression estimates the probability of a certain event occurring. Note that logistic regression calculates changes in the log odds of the dependent, not changes in the dependent variable as in the Ordinary Least Square regression.

$$\ln(\text{odds}) = \ln(\hat{Y}/1-\hat{Y}) = \beta_0 + \beta_1 B2BC_i \dots\dots\dots(1)$$

Where:

$\hat{Y}$  is the predicted probability of the event which is coded with 0= Non-performance; 1= otherwise (performance)

$1-\hat{Y}$  is the predicted probability of the other decision

$X$ = is the predictor variable representing other independent variables for internal and external variables.

B2BCi= Business to business commerce

The variables are measured by using the responses of the respondents in the questionnaire. The responses were coded with 0= Disagree; 1= Agree.

**3.8. Limitations of the study**

**Table 4.2:** Tobit regression for the relationship between business to business commerce and investments in micro and small enterprises

Dependent Variable: INVMSE

Method: ML - Censored Normal (TOBIT) (Newton-Raphson / Marquardt steps)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	10.65023	C	10.70830	0.0000
B2BC	0.324072	0.063567	5.098088	0.0000
Error Distribution				
SCALE:C(3)	3.814368	0.156243	24.41311	0.0000
Mean dependent var	15.59396	S.D. dependent var		3.983919
S.E. of regression	3.833716	Akaike info criterion		
Sum squared resid	4335.727	Schwarz criterion		5.572780
Log likelihood	-821.7987	Hannan-Quinn criter.		5.550460
Avg. log likelihood	-2.757714			
Left censored obs	147	Right censored obs		0
Uncensored obs	154	Total obs		301

The result from the Tobit regression above shows that a one per cent increase in business to business (B2B) commerce increases employment investments in micro and small enterprises by 0.32 per cent in Calabar Metropolis. Business to business (B2B) commerce is also statistically significant at 5 per cent level of significance since its p-value of 0.0000 is less than 0.05.

**4.2. Discussions of findings**

Inadequate finance constituted a major impediment to this study. Also, there were challenges in terms of having access to relevant data and current literatures in this area. Furthermore, this study was limited by lack of time to enhance a more robust research.

**4. ANALYSIS AND DISCUSSION OF FINDINGS**

**4.1. Presentation of Data**

**TABLE 4.1:**  
**Summary of respondents**

Questionnaire	Responses according to MSEs operators	Total	Percentage (%)
No. returned	301	301	94.06
Not returned	19	19	5.94
Total	320	320	100

Source: Field survey by the Authors, 2023

From table 4.1 three hundred and twenty (320) questionnaires were administered to respondents and out of this number, 301 questionnaires were returned while 19 questionnaires were not returned. The total number of questionnaire returned was 301 representing 94.06 per cent while the total number of questionnaire not returned were 19, representing 5.94 per cent of the respondents who did not return their questionnaire.

Findings from the Tobit regression revealed that electronic commerce has a positive and significant effect on investments in micro and small enterprises in Calabar Metropolis. This finding reinforces the findings of Mahliza (2019) as well as that of Okeke and Ezeaghaego (2019) who all found out that e-commerce has positive and significant impact on micro and small scale businesses. This outcome may be due to the high level of internet

usage by some micro and small business operators in Calabar Metropolis.

## 5. CONCLUSIONS AND POLICY IMPLICATIONS

Electronic commerce have been instrumental to the growth of businesses globally even though it has its own challenges and setbacks. This study assessed the impact of e-commerce on investments in Micro and Small Enterprises Calabar Metropolis. Specifically, it examined the impact of business to business commerce on investments in micro and small enterprises in Calabar Metropolis. It was concluded from the findings from the Tobit regression that business to business commerce significantly impact on the investments of micro and small enterprises in Calabar Metropolis. Thus, e-commerce influences investments in micro and small enterprises in Calabar Metropolis. Based on the research conclusions, in order for the micro and small enterprises in Calabar Metropolis to continue to experience improve investments, there should be improvements in internet services by the service providers so that network issues can be reduced to the barest minimum. This will go a long in speeding up business transactions between firms thus helping to improve sales, profits, and investments in the micro and small enterprises in Calabar Metropolis, Cross River State and Nigeria in general.

## References

1. Adejoh, V. A. (2018). Role of E-Commerce in the Economic Development of Nigeria -Konga a case study. *Texila International Journal of Management (Vol.4)*.
2. Beck R., & Weitzel, T. (2005). Some Economics of Vertical Standards: Integrating SMES in EDI Supply Chains. *Electronic Markets*, 15 ( 4), 313 - 322.
3. Beckers, J., Weekx, S., Beutels, P., & Verhetsel, A. (2021). COVID-19 and retail: The catalyst for e-commerce in Belgium? *Journal of retailing and consumer services*, 62, 102645. <https://doi.org/10.1016/j.jretconser.2021.102645>.
4. Carola, D. (2022). E-commerce as a share of total retail sales worldwide 2015-2025. *Statista*. <https://www.statista.com/statistics/534123/e-commerce-share-of-retail-sales-worldwide/>.
5. Chopra, S., & Meindl, P. (2016). Supply chain management: strategy, planning, and operation. *Pearson (6. Global edition)*.
6. ÇİĞDem, Ş. (2021). From EDI to Blockchain: A Bibliometric Analysis of Digitalization in Supply Chains. *Gaziantep University Journal of Social Sciences*, 20(2), 657-677. <https://doi.org/10.21547/jss.861065>.
7. Coppola, D. (2022). E-commerce worldwide. *Statista*. <https://www.statista.com/topics/871/online-shopping/>.
8. CSI Communications. (2014). Looking Back at the Evolution of the Internet. [https://www.academia.edu/9617491/Cover\\_Story\\_Hardik\\_A\\_Gohel\\_Assistant\\_Professor\\_Faculty\\_of\\_Computer\\_Applications\\_FCA\\_Marwadi\\_Education\\_Foundation\\_Group\\_of\\_Institutions](https://www.academia.edu/9617491/Cover_Story_Hardik_A_Gohel_Assistant_Professor_Faculty_of_Computer_Applications_FCA_Marwadi_Education_Foundation_Group_of_Institutions).
9. dos Santos, V. F., Sabino, L. R., Macedo Morais, G., & Gonçalves, C. A. (2017). E-Commerce: A Short History Follow-up on Possible Trends. *International Journal of Business Administration (Vol. 8)*.
10. EcommerceDB. (2021). E-Commerce Market Analysis. *The E-Commerce Market in Nigeria: Statista*. <https://ecommercedb.com/en/markets/ng/all>.
11. Federal Republic of Nigeria (2001). Nigeria National Policy for Information Technology (IT). [https://www.researchgate.net/publication/293308489\\_The\\_nigerian\\_national\\_information\\_technology\\_IT\\_policy](https://www.researchgate.net/publication/293308489_The_nigerian_national_information_technology_IT_policy).
12. Ferrera, C., & Kessedjian, E. (2019). Evolution of E-commerce and Global Marketing. *International Journal of Technology for Business (IJTB) (Vol.1, p.33-38)*. *Springwish Publisher*.
13. FMST. (2022). Federal Ministry of Science and Technology. [https://euepin.unilag.edu.ng/?page\\_id=918](https://euepin.unilag.edu.ng/?page_id=918).
14. Hayakawa, K., Mukunoki, H., & Urata, S. (2021). Can e-commerce mitigate the negative impact of COVID-19 on international trade? *Japanese economic review (Oxford, England)* 1-18. <https://doi.org/10.1007/s42973-021-00099-3>.
15. Ibam, E. O., Boyinbode, O., & Afolabi, M. O. (2018). e-Commerce in Africa: The Case of Nigeria.
16. Igwe, E., Olumuyiwa, A., & Abass, O. (2020). A Review of e-Commerce Adoption in Nigeria based on Security and Trust. *Journal of Science and Logics in ICT Research (Vol. 5)*.
17. Ojukwu .D. (2006). Achieving Sustainable Growth through the Adoption of Integrated Business and Information Solutions: A Case Study of Nigerian Small and Medium Sized Enterprises. *Journal of Information Impact*, 6(1), 47 - 60.
18. Kemp, S. (2022). Digital 2022 - Nigeria. *Datareportal*. <https://datareportal.com/reports/digital-2022-nigeria>.
19. Liu, S. (2013). An empirical study on e-commerce's effects on economic growth. In 2013 Conference on Education Technology and Management Science (ICETMS 2013), Atlantis Press, 81-84. <http://dx.doi.org/10.2991/icetms.2013.260>
20. Lone, S., Harbour, N., & Weltevreden, J. W. J. (2021). 2021 European E-Commerce Report. *Amsterdam University of Applied Sciences & Ecommerce Europe (pp. 111)*.
21. Millman, H. (1998). Easy EDI for everyone. *InfoWorld*, 20(33), 38.
22. Mourya, S. K., & Gupta, S. (2015). E-commerce. *Alpha Science International Ltd*.
23. Müller-Hagedorn, L. (2000). Zukunftsperspektiven des E-Commerce im Handel. *Deutscher Fachverlag*.
24. National Intelligence Council (2021). Global Trends 2040 - A more contested world. [https://www.dni.gov/files/ODNI/documents/assessments/GlobalTrends\\_2040.pdf](https://www.dni.gov/files/ODNI/documents/assessments/GlobalTrends_2040.pdf).
25. National Planning Commission. (2009). Nigeria Vision 2020. <https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/laws/1516.pdf>.
26. O'Neill, A. (2022). Total population worldwide 2020. *Statista*. <https://www.statista.com/statistics/805044/total-population-worldwide/>.
27. Okolie, U. C., & Ojomo, A. H. (2020). E-Commerce in Nigeria: Benefits and Challenges.
28. Plecher, H. (2021). Development of the world population from 1950 to 2050. *Statista*. <https://www.statista.com/statistics/262875/development-of-the-world-population/>.
29. Riehm, U. (2005). E-Commerce. Begriff, Geschichte, aktueller Stand und Ausblick. *Wissensgesellschaft. Neue Medien und ihre Konsequenzen. Bundeszentrale für politische Bildung (bpb)*.
30. Riehm, U., Petermann, T., Orwat, C., Coenen, C., Revermann, C., Scherz, C., & Wingert, B. (2003). E-Commerce in Deutschland Eine kritische Bestandsaufnahme zum elektronischen Handel.
31. Sasu, D. D. (2022b). Leading e-commerce sectors in Nigeria in 2020. *Statista*. <https://www.statista.com/statistics/1175934/leading-e-commerce-sectors-in-nigeria/>.
32. Schneider, G. P. (2016). Electronic commerce. *Cengage Learning (12th edition)*.
33. Statista. (2022). Digital Markets E-commerce Worldwide. *Statista*.

<https://www.statista.com/outlook/dmo/ecommerce/worldwide>.

34. The Ministry Of Communication Technology (2012). National Information Communication Technology (ICT) Policy.  
[https://www.researchictafrica.net/countries/nigeria/Nigeria\\_National\\_ICT\\_Policy\\_\(draft\)\\_2012.pdf](https://www.researchictafrica.net/countries/nigeria/Nigeria_National_ICT_Policy_(draft)_2012.pdf).
35. UNCTAD. (2015). Information Economy Report 2015 - Unlocking the Potential of E-commerce for Developing Countries. *United Nations Publications*.  
[https://unctad.org/system/files/official-document/ier2015\\_en.pdf](https://unctad.org/system/files/official-document/ier2015_en.pdf).
36. WorldData. (2022). Population growth in Nigeria.  
<https://www.worlddata.info/africa/nigeria/populationgrowth.php>.
37. World Trade Organization (2020). E-commerce, Trade and the COVID-19 Pandemic.  
[https://www.wto.org/english/tratop\\_e/covid19\\_e/ecommerce\\_report\\_e.pdf](https://www.wto.org/english/tratop_e/covid19_e/ecommerce_report_e.pdf).