

# The Effect of Covid-19 Pandemic on e-commerce in Nigeria

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**Abstract**— This quantitative study aims to investigate the effect of the Covid-19 pandemic on the Nigerian e-commerce space. The pandemic was indeed a total disaster to businesses worldwide. Numerous companies resorted to e-commerce because the government of almost every country, Nigeria inclusive, made policies to contain the virus (sit-at-home, social distancing, etc.) which affected the smooth flow of businesses. In data collection, primary and secondary data were used. A survey method was also deployed. A simple random sampling with 103 questionnaires was distributed and used for the analysis. The results shown reveals that the Covid-19 pandemic has proven to be a mixed-blessing. It is an eye-opener to a group that businesses could also thrive without physical contact; to others, it has brought a cessation of business and a tale of regret. But in all, it shows that e-commerce has come to stay and can adapt to any change.

**Index Terms**— Consumer, Covid-19, Customer, Entrepreneur, E-commerce, Lockdown, Pandemic.

## 1. BACKGROUND AND BRIEF HISTORY ON COVID-19

THE emergence of coronavirus known as Covid-19 became a global emergency, thereby affecting the societal activities of humans and caused a great shock to many countries. Reports have it that countries in Europe and North America were the most affected by the pandemic, followed by Africa, who mainly depend on Asia, Europe, and America for economic survival (World Health Organization, 2020). The socio-economic disruption caused by Covid-19 has been tremendous, as millions of enterprises were faced with existential threats and financial confusion in adjusting to the new realities the pandemic has brought (Ado, 2021). Before the Covid-19 pandemic, the world was already digitizing its economy with various innovations, coming up to foster business integration, easy access to goods and services to humans through the internet; this is known as e-commerce. This new way of market penetration has been gaining grounds in most continents, especially Africa, in redefining the country's GDPs and economic growth and sustainability (Abiola, 2014); this is evident in several SMEs and startups' growth in Africa.

Nigeria, which houses Africa's biggest economy, is gradually becoming cashless as digital payment and electronic banking are being implemented in phases across most federation states. At present, many transactions can be conducted electronically using several of the emerging digital financial service platforms. The Nigerian digital landscape has been marked by vigorous and healthy growth. Due to its population, Nigeria has the most prominent internet economies in Africa and a vast digital audience, which is evident by its fast-growing youth population, rising

consumer power, network coverage, and good infrastructure for mobile connectivity in Africa. As of December 2020, the e-commerce spending in Nigeria was put at \$12 billion and is projected to reach \$75 billion in revenues per annum by 2025 (Nnoli, 2021). Sequel to the above, it is pertinent to state that e-commerce uses its online space for marketing, identification, delivery of goods and services, and payment. (Tokunbo, 2018).

E-commerce can also be defined broadly to encompass: marketing and selling over the internet (e-tailing), business-to-business electronic data interchange (EDI), emailing and computer faxing, internal information networks amongst employees, conducting research, and seeking information, and ensuring the security of online transactions and information transfers. Of course, this does not mean that the traditional distribution methods, like the wholesalers, retailers, agents, have been sidelined. The case study covers B2C, B2B, online businesses, and home-based businesses (Kuliya, 2015). More so, other business types include consumer-to-consumer (C2C) and online third-party companies.

E-commerce in Nigeria has revolutionized the business environment in many ways. It has created a trading network where customers can communicate and transact without direct physical contact (Tokunbo, 2018). This growth in e-commerce is what sustained Nigeria during the pandemic in 2020.

During the last days of 2019 and early 2020, the coronavirus disease (Covid-19) pandemic gripped the world with a shock; it stunned the economic system of most nations. According to Shereen et al. (2020). The World Health Organization (WHO), on March 2020, acknowledged the novel human coronavirus disease (Covid-19). The first case of the pandemic in Nigeria was announced on the 27th of February, 2020, by the country's Federal Ministry of Health, when an Italian citizen in Lagos tested positive for the virus (Nigeria Centre for Disease Control, 2020); since then,

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Nigeria has recorded over 167,000 cases. North America and Europe were the countries most affected by the pandemic. (World Health Organisation, 2020).

Following the WHO declaration, the Coronavirus Preparedness Group was constituted on the 31st of January in Nigeria to manage the spread of the disease. The World Health Organization (WHO) characterized Nigeria as one of the 13 high-risk African countries concerning the spread of Covid-19. Nigeria was also among the vulnerable African nations, given the weak state of the healthcare system (Marbot, 2020). In Africa, many communities are still bedeviled with a lack and dearth of primary healthcare facilities, apart from the scarcity of health workers (Amzat, 2011). The projection is that Africa could bear the final burden of the Covid-19 pandemic if the countries do not institute effective measures to combat the pandemic. While putting the safety of employees and Nigerians in general, the National lockdown was proposed with the federal, state, and local government encouraging workers to work from home after restricting public gathering and inter-state movement. The announcement of a national lockdown by the Presidential taskforce on Covid-19 on the 28th of March, 2020, ruffles the effect of e-commerce and its impacts on Nigeria's economy.

## 2. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The conceptual framework for the importance of e-commerce is significant because of the availability of affordable internet access and penetration of 60 percent offered by telecommunication companies in the country, which has been thriving the economy before the Covid-19 outbreak. According to the Internet World Start (2021), 154,301,195 internet users in Nigeria in 2020, i.e., about 73.0% of its population (NCC Annual Report of 2020). It is, therefore, opinionated to state that the outbreak of Covid-19 has had a positive impact on the use of the internet in procuring goods and services as the drive for e-commerce continue to sour high in Africa's most populous nation resulting in the digitalization of small scale businesses and ICT development and innovation (Amaechi, 2020).

Many scholars have agreed to available scholarly literature that e-commerce vastly contributes to many nations' economic growth and social development despite having a harsh operating environment. According to the National Bureau of Statistics (NBS), E-commerce in Nigeria contributed about 48 percent on average to the national GDP in the last five years. It accounted for about 50 percent of industrial jobs and nearly 90 percent of activities in the manufacturing sector, among others (Ezedi, 2020). And this is evident in the government's effort in strengthening trade laws, secured cyberspace, financial services, and ease of doing businesses in the country to ensure competitive changes and rapid market (Ahmed, 2018).

However, with the gains made over the years and various economic projections pundits, scholars, and analysts have had on the growth of e-commerce in Nigeria, the Covid-19 outbreak struck, and the uncertainty of whether the gains will be eroded. Most consumers took to businesses with an e-commerce presence, which forced marketers to adapt and revise their strategies to the new reality of how to survive in the pandemic period (Lawal et al., 2020). For instance, reacting to the pandemic's effect on businesses, Himani (2020) was right when he posited that the worst months of 2020 were March and April. These new ways of doing things ushered in numerous innovations and ideas of marketing and doing business while improving the existing one in the pandemic as e-commerce solutions ensured service delivery and business continuity to Nigerians. These realities further increased consumer and customer open-mindedness to new digital experiences during the pandemic (Sarah et al., 2021).

### 2.1 An Overview of E-Commerce in Nigeria

Nigeria, which has one of the biggest economies in Africa, has been experiencing steady growth in e-commerce over the years. And this is due to the accessibility of internet penetration and connection in the country. According to the Nigerian Communication Commission (NCC), the country's broadband network coverage is 103 percent based on its population. With an internet-active teeming youth and adult population within the country's almost 200 million people, who access the web either with their smartphones or computers, but virtually over 78 percent of people accessed the internet with their smartphones, the online market is enjoying proper patronage as it connects customers to cost-effective producers and merchants, as shown in table 1 (Statista, 2020).

TABLE 1  
NIGERIA'S INTERNET RECORD DURING THE COVID-19 PANDEMIC IN 2020

Internet Data	Percentage	Mode
Internet Usage	82	Mobile
Internet Penetration	73	Broadband
Traffic Generated	75.1	Online channels

Source: Statista, 2020

According to Shesha (2018), the e-commerce market in Nigeria is valued at \$12 billion with over 87 indigenous platforms. Over the years, its potentials have not yet been adequately utilized, with some factors mitigating its overall successes. The infrastructure challenges and payment channels have called for concerns between business owners and customers, casting doubts on e-commerce models. However, in 2015, the bill known as the Cybercrime bill was signed into law by the Federal Government, thus became an Act to prevent and prohibit e-commerce fraud. The sole aim is to protect e-business transactions, company copyrights,

domain names, and other electronic signatures about electronic commerce in Nigeria. However, the prevalence of these challenges still exists but is highly manageable in Nigeria. The pandemic led some grocery retail chains to launch e-commerce – a channel that most of them had previously ignored.

## 2.2 E-commerce Models used during Covid-19

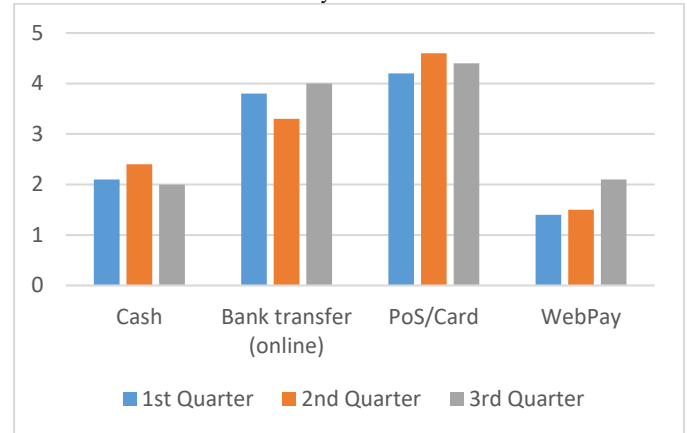
Nigerians adopted various e-commerce models to enable them to purchase goods and services over the internet, and they are listed below:

- Business to Business (B2B):** Platforms such as China's Alibaba/alibaba.com (which is the most famously used) is one of the supply chains some Nigerian companies purchases components and raw material from which they turn into finished goods and then sold to individuals (Chen, 2020). However, with the national lockdown taking effect in China, the manufacturing and exportation of goods to Nigeria suffered a significant setback leading to the rise of commodities in Nigeria. Substances like the chemical for producing nylon and other items were scarce, leading to a hike in the available prices.
- Business to Consumer (B2C):** This is unarguably the most widely known type of e-commerce; this is where companies sell products to individual consumers. Amazon rings a bell because it can be considered the largest retail store in the world. Ore so, Jumia is the biggest in Africa as well as one of the first e-commerce startups in Nigeria, belong to this category (World Bank, 2020)
- Customer to Customer (C2C):** This platform, often described as s-commerce (social commerce), has gained popularity among Nigerians, primarily through social media. Platforms such as Jiji, OLX, and Obiwezy belong in this category.
- Other:** Customer-to-business, government-to-business, and different platforms exist but are of no relevance to this study.

As the country was experiencing a national lockdown due to the continuous spread of the Covid-19 virus, Nigerians who majorly have turned to the online platform stayed away from large gatherings such as banks, mosques, churches, schools, and markets, among others, because of the fear of coronavirus being transmitted through the exchange of cash, contact with public items or materials. This, in turn, made online shopping and online payments a new frontier for many shoppers.

Fig. 1 shows Nigerians' behavior toward online shopping and payment method. As seen from the chart, customers preferred a personalized means of payment, most times from the comfort of their homes, thereby avoiding physical contact with persons or cash for fear of contracting the virus. The anxiety and panic arising from Covid-19 can be seen in

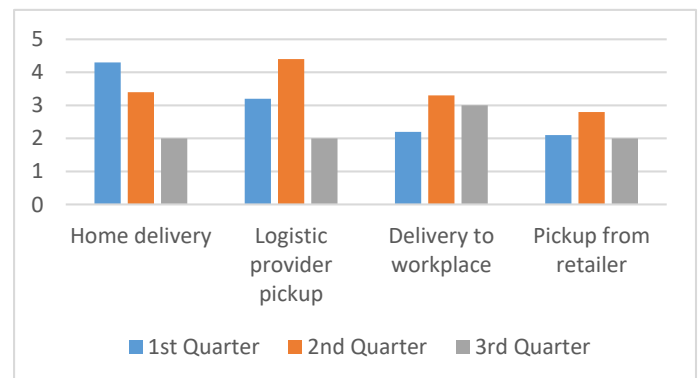
the chart from the 1st-3rd Quarter of 2020 while the bank/online transfer and card services were on the high side to curtailing the spread of Covid-19. The implication of this is that cash patronage has been moved online or electronically, thereby complying with the Federal Government Cashless Policy of 2012.



Source: NEPAD Nigeria 2020

Fig. 1. Customer's preferred mode of payment during Covid-19

Aside from shopping, one of the major problems Nigerians had was choosing the delivery method as the fear rage on with the death toll, and the numbers of infected persons continue to rise. Some companies set up mobile shops to move their wares to the area of interest. Still, the mobile shops were only seen in limited areas, thus leading Nigerians back to an option which is shown as fig. 2. Home delivery and logistic provider's pickup were rated by customers as their preferred method of delivery at the 1st and 2nd Quarter respectively, this is as a result of e-commerce confidence that has been built over the years to handle such delivery putting mind that the social distancing guidelines of Covid-19 had been put in place by the handling company. Delivery to the workplace is low because of the stay-at-home order given to workers working from home. Same as pickup from the retailer, which is often tedious and mostly crowded (often there are breakdowns of Covid-19 guidelines).



Source: NEPAD Nigeria 2020

Fig. 2. Preferred delivery choice of consumer

## 2.3 Customer's E-Commerce Behavioral Changes during Covid-19

The beginning of the national lockdown on Covid-19 was marred with the hike in the price of foodstuff, drink, essential commodities, and panic buying, thereby forcing consumers to change the way they lived. However, some changes around the way people were buying essential items were noticeable. For instance, to avoid crowds at supermarkets, many people opted for BOPIS (buy-online-pick-up-in-store) or delivery options, especially food brands like Dominos pizza, Shoprite, and Spar in Nigeria. In addition, these popular food chains like Dominos and Spar food designed mobile applications that allow people to hire personal shoppers to assist in shopping and deliver their foodstuff orders. The mobile application patronage increased by between 110% (Dominos) and 212% (Spar), respectively (Susan, 2020). More than ever, people have resorted to patronizing online than during the new normal.

TABLE 2

TOP 3 E-COMMERCE ESSENTIAL COMMODITY WEBSITE/APP VISITATION AT THE 1ST-3RD QUARTER OF 2020 NIGERIA

S/no.	E-commerce company	No. of visitation 1st Qtr 2020	No. 2 <sup>nd</sup>
	Jumia.com.ng	6.4 million	6.8
	Konga.com.ng	5.2 million	5.8
	Jiji.ng	3.8 million	3.7

Source: Statista, Alexa, SimilarWeb 2020

Table 2 shows that Jumia, the leading e-commerce company and the most important supply chain site in Nigeria, witnessed an increase in the number of visitors in the first quarter because of panic buying initiated by consumers, it further increased in the second quarter because of the initiation and extension of the national lockdown. Konga, the alternative to Jumia, experienced an increase in online visitation in the first, second, and third quarters respectively. Jiji.ng, one of Nigeria's largest C2C e-commerce companies, also experience a boom during the pandemic.

The preferred choice of e-commerce visitation has majorly been mobile access because mobile optimization gives an excellent buying experience. The mobile connectivity in Nigeria is about 169.2 million, which is about 83% of the country's population. As of January 2020, they were put at 85.49 million and increased by 2.6% in the Second Quarter. The number of online shoppers in Nigeria was 76.6 million for 2019; the number increased by 24% in 2020 (DataPortal, 2020).

## 2.4 Some E-Commerce Innovations and Opportunities witnessed during the Covid-19 Pandemic

Several e-commerce industries experienced new and high patronage consumers during the pandemic. They range

from do-it-yourself (DIY) tasks, online sales, virtual fitness, and personal training instructions among other home services trends (Peek, 2020). The Covid-19 outbreak saw businesses thinking outside the box in other to remain relevant in Nigeria while providing services to customers; it also unlocked new opportunities to meet consumer and customer's evolving needs after the newfound norm of social distancing, and remote work has thus turned traditional in-person businesses like restaurants, brick-and-mortar retail, and event services upside down. Some of the innovations and opportunities are:

### a. Business Remote working

The pandemic witnessed a massive increase in remote working as well as conducting important events online. This was evident with entrepreneurs coming up with different innovations to please their customers. While some developed mobile apps for their businesses, others took to Zoom, an online application that conduct meetings with a large user by merely logging in with a username and password. Event planners and entrepreneurs also saw opportunities in achieving businesses with it as it also helps reduce commute cost, rental and office cost, risk cost, and personnel cost, among others. Government meetings and conferences were also virtually done using the internet, thereby saving government costs.

During the pandemic, a Nigerian couple, with the help of an innovative event planner, conducted its first online wedding. Refreshments and gifts were sent to participants via courier services. The pandemic indeed came with entrepreneurship innovations. Since then, event planners have been called to help set up remote working events as part of the e-business revolution in the Covid-19 pandemic.

### b. Increase in demand for skilled workers for immediate employment

With the increase in remote working and business automation came a higher need for a better-skilled workforce. Applicants who can sort out customer demands online and deliver were in excellent order during the pandemic. For companies, procuring and acquiring relevant skills and competencies for their staff further put them ahead of their competitors in the business environment. It further encourages the digitalization of businesses and services.

### c. Development of Applications for Remote Learning

Covid-19 pandemic invited an era of increased remote learning, and several secure applications that support payment, e-learning, e-working, and conferencing were in great demand during the pandemic. Applications such as Zoom, Club House, and Skype experienced a boom in business during the pandemic. They were patronized by schools, churches, small and big scale businesses, etc., in day-to-day activities. The use of these applications turned out to cost-effective and easier to set up.

### d. Personal Protection Equipment and Cleaning



## Products

Due to the Presidential Taskforce on Covid-19 restriction of movement, importation became difficult, turning Nigerians into producing some of the things they originally imported. For example, an increase in a do-it-yourself method of making medical items such as face masks and hand sanitizers, and cleaning products during the pandemic. As these medically preventive items were experienced, people produced sanitizers and face masks using some guides seen on TVs and were sold online using either the B2C or C2C e-commerce methods.

### e. Mobile banking and Point of Sale (PoS) patronage

The Covid-19 pandemic saw the need for an alternative ATM channel after witnessing very long queues in most ATM centers with several ATMs not dispensing cash to people to meet their daily needs. The demand for money almost became a significant problem as many retail stores were yet to go “cashless” or fully tap into the Federal Government Cashless Policy of 2012. As some stores opted to a Peer to Peer (P2P) or mobile transfer channel using their banking applications or USSD, others saw the importance that avail banking and convenient services using the PoS to give cash to people in the form of withdrawal and take some money in deposit while changing a minimal fee. The PoS business has grown all over the country and has thus caused a decline in the use of ATMs or bank visitation by further observing social distancing in response to the Covid-19 guidelines.

### f. Buying and selling of crypto-currencies

Specific sectors, particularly the crypto-currency sector, experienced massive patronage during the pandemic. More Nigerians saw reasons to educate themselves and try the new economic trend while also making money trading it. Many people invested in most of its popular coins, and aside from making a fortune, Nigerians became the second-largest bitcoin users during the pandemic. Banks and Fintech companies developed new platforms to encourage Nigerians to tap into the latest trend. Some offered training via their mobile applications, and thus, sales were made using the coins. But unfortunately, in early 2021, Nigeria's Central Bank placed a ban on crypto currency.

## 2.5 Challenges of E-commerce during the Covid-19 pandemic

The internet has become a global marketplace based on the number of online trade and economic information it provides to all kinds of people. It has revolutionized the economies of many nations, including Nigeria, in the way they do businesses and taken the minds off people who are used to the traditional method of a trade by inculcating a virtually different mindset of search, order, making payment and goods and service delivery and sometimes feedback. However, with the Covid-19 outbreak came with its

challenges, thereby compounding the existing ones, and they are:

- a) Lack of adequate infrastructure
- b) High cost of shipping because of a weak dollar exchange rate
- c) Lack of privacy and confidentiality concerns
- d) High cost of taxation
- e) High rate of poverty and illiteracy
- f) Epileptic power supply
- g) Insecurity
- h) Lack of trust in the web retailer and paying online
- i) Unreliable distribution and delivery process
- j) Unreliable network issue and high cost of internet
- k) Debit card e-fraud
- l) Inferior and substandard goods

The above-stated challenges are somewhat prevalent in the e-commerce space of any country as a significant threat to implementation. Still, online companies are not deterred, as they know the benefit of e-commerce is worth more than these challenges that can be circumvented with relevant laws and policies (Ayo, 2006).

## 3. METHOD OF TECHNICAL ANALYSIS

The research aims at ascertaining the effects of the Covid-19 pandemic on e-commerce in Nigeria. In the process of this study, and to address the lack of trust of Nigerians in making use of the various e-commerce platforms in the country, a survey method was used to obtain relevant data needed to conclude this work because it has proven to be effective in analyzing people's thoughts, preferences, and behaviors in a systematic manner. This method collects information from a sample of individuals through their responses to questions (Check & Schutt, 2012). Famous scholar and sociologist Paul Lazarsfeld often uses survey methods in his political opinion formation program. The survey method, which is often not time-consuming and cost-effective, aims to elicit relevant information from respondents. This technique provides open time for respondents to think and answer the questions; they are not bound to complete the survey in one sitting (Covey, 2002).

This paper covers two (2) different Nigerian cities that the Covid-19 lockdown of the pandemic was first enforced, and they are: the Federal Capital Territory and Lagos State. The reasons for choosing Lagos State and the Federal Capital Territory of Abuja are the high presence of e-commerce companies domiciled in it and one of the few commercial States of the federation. What is more, to select the target population, a simple random sampling technique was used with a questionnaire, and the principal instrument used to obtain data needed to conclude this work. The questionnaire was structured to get information regarding the effect of Covid-19 on e-commerce in the country. Out of the 200 questionnaires randomly administered, 103 were duly returned, while 14 were incomplete.

### 3.1 Analysis of Result

From Table 3 underneath, it can be deduced that 34% of the respondents are female, while 66% were all male. 32% of the respondents are between the ages of 31 to 40, while 20% are between the ages of 21 to 30. 29% of the respondents are working in the educational field, 27% are involved in one form of business, and 21% are in the IT industry. 67% of the respondents are either BSc or HND graduates, while 28.16% are possessed other qualifications. Affirmatively, this revealed that approximately 84% of the respondents are educated and potential users of e-commerce facilities to do business.

TABLE 3  
DEMOGRAPHIC PROFILES

Variable	Frequency	Percentage
<b>Gender</b>		
Male	68	66
Female	35	34
Total	103	100
<b>Age</b>		
20 and below	11	10
21 and 30	21	20
31 and 40	33	32
41 and 50	15	15
51 and 60	16	16
61 and above	7	7
Total	103	100
<b>Occupation</b>		
Civil Servant	15	15
Businessman	28	27
IT	22	21
Student	30	29
Others	8	8
Total	103	100
<b>Education</b>		
Primary	2	2
Secondary	7	7
Bsc./HND	69	67
Post	21	4
Others	4	20
Total	103	100

From Table 4, 18% of the respondents reasonably often use the internet during the pandemic, 49% of respondents use the internet very often, and 33% always use the internet for various purposes. It can be seen that 3% of the respondents use cyber café to access the internet, 69% browse from their mobile internet access or phone data to browse. In comparison, 28% of the respondents use other means to connect to the internet, such as their office Wi-Fi and others for browsing. This showed the growing number of mobile users in the country as most mobile operators provide affordable and fast internet access. 68% of the respondents agreed that with the pandemic came the opportunity for their companies to conduct their businesses

online, 27% disagreed that their companies were not run online.

In comparison, 10% felt indifferent, having been out of jobs because of the pandemic. 26% of the respondents have engaged in e-shopping, 18% have done e-banking, 17% have done e-learning, 20% have done one form of online payment, and 19% have engaged in e-government activities the pandemic. 21% used USSD or Mobile Banking applications to pay for online line transactions, 42% representing the majority used PoS, which became a form of cash dispenser too for payment, 31% uses cash to make payment, and 6% of the respondents make use of alternative payment agreed by the seller or service provider, one of such is bitcoins. 29% of the respondents agreed to have visited an online shop during the pandemic while observing social distancing. In comparison, 71% have not seen any online shop and would rather have their services or goods delivered to their homes. 50% of the respondents believe the e-commerce companies' services were very influential during the pandemic, 33% of the respondents thought that the e-commerce companies were not effective in delivering their services during the pandemic.

In comparison, 17% of the respondents were indifferent. Lastly, 27% of the respondents agreed that the Covid-19 pandemic harms e-commerce in Nigeria. In contrast, 78% representing the primary response from the respondents, do not agree that the Covid-19 pandemic harms e-commerce in Nigeria but instead believed it helped it grow further.

TABLE 4  
E-COMMERCE PRACTICE

Variable	Frequency	Percentage
<b>How often do you make use of the internet during the pandemic?</b>		
Fairly often	18	18
Very often	51	49
Always	34	33
Total	103	100
<b>What is the mode of the internet access used during the pandemic?</b>		
Cyber Café	3	3
Mobile internet access	71	69
Others	29	28
Total	103	100
<b>Was your job or business conducted or done online during the pandemic?</b>		
Yes	65	63
No	28	27
Indifferent	10	10
Total	103	100
<b>What are the types of e-commerce businesses engaged in during the pandemic</b>		
E-shopping	26	26
E-banking	19	18

E-learning	17	17
E-payment	21	20
E-governance	20	19
Total	103	100
Mode of payment used during the pandemic		
USSD	22	21
PoS/online banking	43	42
Cash	32	31
Others	6	6
Total	103	100
During the pandemic, how often do you visit the online stores?		
Daily	67	65
Weekly	21	20
Monthly	15	15
Total	103	100
How effective were the e-commerce companies during the pandemic?		
Very effective	51	50
Not effective	34	33
Indifferent	18	17
Total	103	100
Do you think the Covid-19 pandemic harms e-commerce in Nigeria?		
Yes	23	22
No	80	78
Total	103	100

### 3.2 Discussion of Result

The principal objective of this study is to investigate the effect of the Covid-19 pandemic on e-commerce in Nigeria. From observations, it was revealed that there had been a significant increase in the development of e-commerce in Nigeria, which is evident in the people's active internet usage in acquiring goods and services. Ojukwu (2007) and Lukerel (2010) opined that the internet as an information communication tool is key to the development of e-commerce and this study's result is supporting their assertions as it further explained that the growth of e-commerce in Nigeria is evident to the penetration of internet and entire populace. The development of mobile communication system in early September 2001 further had a boost to how people access the internet; it can be shown from the study that most internet activities are accessed through mobile phones, with that, it is also revealed that there has been an increase in online transactions and activities such as e-payment, e-banking, e-learning, and e-shopping, etc. It was observed that most e-commerce businesses are domiciled in Lagos and Abuja, being the country's commercial city and Capital city, respectively. The study clearly showed that a lot of people took advantage of e-commerce during the pandemic as movements were restricted and social distancing enforced, and as such, ICT tools such as mobile applications, USSD, ATMs, PoS, and more were used by Nigerians to make payment online which

further helped promote e-commerce in the country. The major demerit acknowledged and experienced by the respondents is the fear that activities on online patronage could lead to internet fraud, delivery of substandard goods and services, among others.

### 4. RECOMMENDATIONS

Covid-19 pandemic brought in a significant increase in mobile internet use and the development of Nigeria's e-commerce involvement in e-learning, e-shopping, e-worship, e-payment, and e-government. Nigerians are getting more and more dependent on the internet for their day-to-day activities. The need to strengthen e-commerce has been a major talk in all consciousness of governments, businesses, consumers, or customers.

With the growing population of its youth and the rising cases of internet-enabled fraud, the government needs to ensure secure cyberspace by effectively implementing its various financial policies to protect businesses and customers with relevant laws. It is also recommended that the government improve its power and infrastructure sectors to enhance economic activities that will further enhance its GDP through e-commerce.

E-commerce industries need to build trust in their payment system and manage customer's information by operating a secured webpage built on a firewall. Government should also support the production and sourcing of raw materials locally because of the effect the Chinese lockdown had on importation in the country during the pandemic where there was a hike in the price of goods. There should be collaboration and synergy between the government and e-commerce industries in copyright protection and the promotion of businesses.

### 5. CONCLUSION

Covid-19 has potentially changed the Nigerian economy, especially the e-commerce sector, for the better. The likely trends identified above have improved the workforce's efficiency and productivity, potentially reducing the cost of doing business in the long term and boosting economic growth in the country. The Covid-19 pandemic has proven to be somewhat of a blessing to some businesses and a tale of regret to others, but in all, it shows that e-commerce has come to stay and can adapt to any change.

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