CENTRAL ASIAN JOURNAL OF INNOVATIONS ON TOURISM MANAGEMENT AND FINANCE

Volume: 03 Issue: 10 | 2022 ISSN: 2660-454X

https://cajitmf.centralasianstudies.org

Taxation as a Tool of Enhancing Economic Growth in Nigeria

[1] **Udochukwu Godfrey Ogbonna (Ph.D)**

[2] **Uniamikogbo Emmanuel (Ph.D)**

[3] **Okojere-Izehi Peace Ngozi**

Received 16th Aug 2022,
Accepted 15th Sep 2022,
Online 19th Oct 2022

[1] Associate Professor, Department of Management Science, Rhema University, Nigeria
kellyogbo2004@yahoo.com

[2] Senior Lecturer Department of Management Sciences, Rhema University, Nigeria

[3] Department of Management Sciences, Rhema University, Nigeria

Abstract: This study examined the effect of taxation on economic growth in Nigeria. The ex-post-facto research design was employed. The study sampled firms who pay their taxes to the FIRS in the thirty-six (36) states of the Federation and Federal Capital Territory, Abuja for the period covering 1995-2021. Secondary source of data collection method was used to harvest data from the Central Bank of Nigeria (CBN) Annual Statistical Bulletin and the Federal Inland Revenue Services (IFRS) Annual Report respectively. The Autoregressive Distributed Lags (ARDL) technique was adopted in the data analysis. The study findings indicated that withholding taxes and value added taxes obtained from the digital economy have significant effect on economic growth in Nigeria. Conversely, Company Income Tax (CIT) with respect to the digital economy has no significant effect on economic growth in Nigeria. However, a significant degree of relationship exists between digital economy tax variables and real gross domestic product of Nigeria. The study recommends that government may need to pay more attention to tax leakages in digital economy by embracing the current shift in economic activities through continuous training of tax officials. There is also the need for effective reforms in the Nigeria tax system, with focus on digital economy and economic transformation in Nigeria. Lastly, authorities need to obviate the complexity of the various components of taxes when making tax policies concerning taxation in Nigeria, given that the various tax components perform differently

Key words: Digital economy, cross-border trade, Taxation, Real gross domestic product, Economic growth.

1. Introduction

Taxation is one of the major fiscal policies used by any government to maintain law and order in her society via maintaining a balance between the high- and low-income earners. Taxation is an important

tool because it is the major source from which governmens generate revenue to meet public goods. While taxation maybe viewed from a broad perceptive, this study seeks to explore both existing and emerging business models upon which the tax laws are applied.

Digital economy is the worldwide network of economic activities, commercial transactions and professional interactions that are enabled by information and communications technologies (ICT) (ICAN 2021). The invention of technology has shaped our world into a global village, technology has not only changed the way we do things but also transformed the business world. Tech companies have continued to develop software for its ever-growing customers' needs. Over the years, foresighted businesses have taken the opportunity presented by technology for profit maximization and marketing. Technology in the 21st century is experiencing a rapid growth and acceptance all over the world. More businesses are embracing the change from the traditional business model to digital business model (Aliu, 2021).

Digital economy has been in existence for decades, yet countries have struggled to find a balance for taxation of digital economy. Multinational entities such as Amazon, eBay, Twitter, Uber, Facebook, YouTube, Google, Netflix, Spotify, Alibaba, PayPal, etc., have over the years leveraged on the internet to expand their cross-border transactions, reaching customers across the globe without establishing physical presence in all the countries where they earn their revenues (OECD, 2020). For instance, about 2.8 billion people globally purchased consumer goods via e-commerce in 2018, representing about $1.8 trillion in revenue and 14% year-on-year growth rate. According to OECD (2020), the U.S. and the U.K. account for the largest share of e-commerce activities for consumer goods globally while there is still a significantly large untapped e-commerce market, especially among developing countries like Nigeria.

Cross-border trade is done on a click of Button and these transactions are growing on daily basis. The recent Coronavirus (COVID-19) outbreak in 2019 forced almost the entire world economy into lockdown in a bid to curb the virus. Despite the sad events that followed the pandemic, there were however, tremendous improvements and enlightenments in the way business could be done. Companies like ZOOM, Microsoft Team, and WhatsApp who before the pandemic were not so popular saw their revenue more than triple in the first three months into the lockdown (Masekesa, 2021). Although, countries have since lifted the restrictions, the effect of the pandemic on businesses has remained, as most businesses chose to go digital rather than the old model of physical transactions as seen in GOOGLE who closed most offices around the globe (The New York Times, 2021). In effect, the pandemic opened ways for businesses to embrace e-commerce and governments to the gap in digital economy.

Several prior researches had been conducted on tax revenue and economic growth of Nigeria, with none to the best of the researchers' knowledge conducted on the taxation of digital and non-digital economies concomitantly and economic growth of Nigeria exclusively. Furthermore, few studies conducted in this area on digital economy in Nigeria were either survey researches with the use of questionnaires or mere theoretical papers. To the best knowledge of the researchers, this is the first study on to examine empirically the effect of taxation of digital and non-digital economies concurrently on economic growth of Nigeria to be conducted empirically using country's-specific data. This is the knowledge gap this study seeks to fill.

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1 Taxation

Taxation is an enforceable contribution of money enacted pursuant to legislative authority. In other words, taxation is a levy imposed by the government on the income profit of the individual, partnership and corporate organization (Asaolu, Olabisi, Akinbode, & Alebiosu, 2018). The major goal of taxation is to generate income to assist the government in running the administration and providing basic services to

the residents of the country, as well as to fund ever-increasing public-sector spending. The tax system ensures that income and wealth are redistributed in order to decrease poverty and improve social welfare for the people. This can be accomplished by having those who earn more to pay higher tax rate than those who earn less. However, income tax revenue has been grossly understated over the years due to faulty tax administration resulting from under assessment and inefficient collection machinery (Adegbie and Fakile, 2011). According to Naiyeju (1996), the success or failure of any tax system is determined by how well it is administered, as well as how well the tax law is read and applied. The role of taxation in promoting economic growth in Nigeria is not fully felt, and optimal tax is not been realized that can engine economic growth primarily because of its poor administration. Even after the tax authority has implemented several tax policies in recent years, such as the E-Payment scheme, Tax Identification Number (TIN), and Anti-tax Avoidance legislation, considerable tax difficulties remain. These include frontiers of professionalism, poor accountability, lack of awareness of the public on the imperatives and benefits of taxation, corruption of tax officials, tax avoidance and evasion by taxing units, connivance of taxing officials with taxing population, high rate of tax, and poor method of tax collection (Onakoya & Afintinni, 2016). These difficulties faced in the tax legislation have brought about reduction in the tax revenue generated by government, thus, her inability to provide the basic needs to the public. Premised on this, it is required that government should extend her tax net into taxation of digital economy with a view to increasing her revenue base in order to meet up with her responsibility to the populace in terms of providing welfare to the people. However, whether income tax from digital economy would help to improve the economic growth of Nigeria has remained contentious. It is on this basis that this study seeks to examine the influence of taxation of digital economy on economic growth of Nigeria with a view to validating existing studies.

2.1.1.1 Companies Income Tax in Nigeria

Companies Income Tax Act, 1990 is the current enabling law that oversees the collection of taxes on profits made by those operating in Nigeria, except companies engaged in petroleum exploration operations. This tax is payable at a rate of 30% for each year of assessment (based on actual year) on a company's profits. Companies' income tax administration in Nigeria, according to Ola (2004), does not meet sufficient criteria. He went on to say that while corporate income tax is an important source of revenue in Nigeria, non-compliance with laws and regulations by tax payers is widespread due to a lack of oversight. In the Nigerian companies' income tax system, broad tax reforms are required.

2.1.1.2 Value Added Tax in Nigeria

Value-added tax (VAT), known in some climes as goods and services tax (GST), is a type of tax that is assessed incrementally. It is levied on the price of a product or service at each stage of production, distribution, or sale to the end consumer (Ikumapayi, 2021). Nigeria introduced Value Added Tax (VAT) into its tax system in 1993, with a modest VAT rate of 5%. By virtue of amendments made by the Finance Act 2019, the current VAT rate for Nigeria is now 7.5%. In addition to the revised VAT rate, there are other notable amendments to the VAT Act which include the exemption of small businesses from VAT registration and filing, as well as the expansion of the VAT exemption list (Udoma & Belo-Osagie, 2021).

2.1.1.2.1 Challenges in VAT Administration and Collection

VAT is not charged on all goods and services i.e. some goods and services are exempted from the payment of tax goods such as all medical products, basic food products, books, and educational materials, and services such as medical services, services rendered by community banks, performances towards learning (VAT Act, 1993). The question of who is meant to collect VAT in the country is generating a lot of controversies between the federal government and some states, these states are basing their argument on the fact that they generate more in terms of the VAT collected by the federal government but only

receive little in return due to the sharing formula. Three of the 37 states (FCT included) in Nigeria provide 81% of the VAT collected by the FIRS (Adeoti, 2021), Lagos has the highest VAT collection, amounting to 55% of Nigeria's VAT. FCT has second place with 20%, while 6% is from Rivers. If Kano's 5% is removed, 33 States provide only 14% of the total VAT in Nigeria; Lagos provides 4 times what 33states provide combined! That seems an unfair deal considering several states in the country, through Sharia, do not permit the sale of certain goods and services. Certain states refuse certain businesses from operating in their states, yet collect taxes from them when other states allow them. These, definitely will reduce the revenue generated from VAT in Nigeria, thus posing an adverse effect on the economic growth of Nigeria (Ikumapayi, 2021).

2.1.1.3 Withholding Tax in Nigeria

Withholding Tax (WHT) is an advance payment of income tax. WHT in principle is a payment on account of the ultimate income tax liability of the taxpayer or company. Withholding tax is not a separate tax on its own and does not confer an exemption from the filing of annual tax returns by the company which had suffered WHT. The tax is normally to be deducted at source when a payment is to be made to the beneficiary. The withholding tax (WHT) provision was introduced into the tax system in 1977 with limited coverage to rent, dividends and directors fees. Tax deduction at source has since been expanded to include: all aspect of building, construction and related services, all types of contract and agency arrangement, other than outright sale and purchase of goods and property in the ordinary course of business; consultancy, technical and professional services; management services; Commissions; and Interest and Royalty.

2.1.2 Digital Economy

The concept of “digital economy” is currently being debated and it has taken the center stage in the business world. There are three ways to define “digital economy” according to scientific sources: digital economy is a way of doing business on the Internet; digital economy is a system of relations based on the use of digital technologies; and digital economy is a specific production organization (Nikolaichuk, 2017). Digital economy is defined by Komarov and Pokopyev (2017) and Krivenko (2015) as the symbiosis of the virtual and real economies, based on the interaction and development of social values. The digital economy, according to Leonova (2017), is the set of social relations that emerge when we employ electronic technology, electronic infrastructure and services, and tools for analyzing vast amounts of data and forecasting to optimize production, distribution, marketing, exchange, consumption, and increase of social and economic development of countries. According to OECD (2014), narrows the understanding of digital economy to the share of GDP accounted for by the ICT sector.

Before the Finance Act, non-resident companies were taxable in Nigeria only if they had a fixed base or permanent establishment in Nigeria. This meant that digital companies providing services and goods without physical presence in Nigeria were not liable to pay income tax in Nigeria. This position has changed with the enactment of the Finance Act, 2019.

The motivation to tax digital transactions derives from a growing international consensus that states whose citizens contribute to the profits of digital companies (market jurisdictions) should also enjoy taxing rights over those profits. Taxation of digital transactions is primarily concerned with how these taxing rights are allocated between states.

The justification for taxation of digital transactions includes: (i).Scale without mass: Digital companies are able to operate across various jurisdictions without having a physical presence in those jurisdictions thereby exempting them from the traditional model of taxation which was based on the existence of a fixed base or permanent establishment. The ability of digital companies to generate income from market jurisdictions without paying “commensurate” taxes due to the limitations of the traditional basis of

taxation has led to a realisation that there is need for a new framework to bring digital transactions within the tax net. Furthermore, digital companies rely heavily on intangible assets which can be located in low or no tax jurisdictions thereby providing the digital companies with considerable tax savings. (ii) User participation: the business models of some digital companies rely heavily on substantial contributions and information provided by users of the company's product. This information is monetised by the digital company by using it to provide targeted advertisements or by selling the information to third parties. Proponents of taxation of digital transactions believe that the countries where these users are resident have a right to tax income generated from the activities of these users.

Several investigations in this area have yielded varying outcomes. Based on their conclusions, these researches can be divided into two groups. The first set of studies found that ICT can result in a decrease in tax income or an increase in tax evasion (Etim, Jeremiah & Dan, 2020; Schaefer & Spengel, 2002). The second stream of literature, on the other hand, agrees that ICT has a favourable effect on tax income and helps Nigeria's economic growth processes (Ajala & Adegbie, 2020; Olatunji & Ayodele, 2017; Oseni, 2016). The importance of tax revenue cannot be overstated, especially with the advent of the fourth industrial revolution. As a result, the primary goal of this study is to determine the influence of income tax from the digital economy on economic growth in Nigeria.

2.1.3 Economic Growth

Economic growth is the increase in the inflation adjusted market value of goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP usually in per capita terms. It is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another (Onyekwere, 2016). According to Jurayevich and Bulturbayevich (2020), it is worth emphasizing that boosting the country's manufacturing capacity is also part of economic growth. The right-hand curve will eventually shift due to the quantitative and qualitative improvements in national production performance. Economic expansion will enhance the number of social products available, resulting in increased population well-being. Thus, the economy will be better able to meet current demands.

2.1.3.1 Real Gross Domestic Product

Gross Domestic Product (GDP) is a monetary measure of the market value of all the final goods and services produced in a period of time, often annually or quarterly. An aggregate measure of production equal to the sum of the gross values added of all resident and institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs) (OECD, 2014).

Real GDP accounts for price changes that may occur due to inflation, whereas nominal GDP is the market worth of all final commodities produced in a geographical region, usually a country. Nominal GDP will change if commodity prices shift from one period to the next but actual output does not. Real GDP is calculated using prices from a given year (the base year) in contrast to the year of interest to account for price changes. This allows real GDP to accurately measure changes in output. The GDP of a country plays a vital role in comparing its economic activities to those of others, necessitating the identification of many variables that contribute considerably to the real GDP in order to make accurate predictions (Jelilov & Musa, 2016).

2.2 Theoretical Framework

2.2.1 Socio-Political Theory

Government role in terms of economic growth of a nation is generally portrayed through their policy choice (monetary and fiscal policies). Socio-political stability is imperative for economic progress, thus, in a multicultural, multilingual and multi-religious country like Nigeria policies might not be always

economic. Therefore, the government should ensure that the populace stands "unity in diversity". This study is anchored on the "Socio Political Theory" propounded by Adolph Wagner in 1835. The German political economist Adolph Wagner (1835-1917), after experimental examination on Western Europe at the end of the 19th century developed a "law of increasing state activity" and was named after him as Wagner's Law. In his view, he said that increased industrialisation and economic development precede government growth. Thus, government growth is a function of industrial growth and economic development. According to Wagner, as the real income per capita of a nation increases, the share of public expenditures in total expenditures increases during the process of industrialisation. "The arrival of modern industrial society as cited by the law will result in growing political pressure for social progress and increased allowance for social consideration by industry." The Social Political Theory advocated by Adolph Wagner articulates that social and political objectives should be the deciding factors in selecting taxes. Bhartia (2009) posits that the Social Political Theory encouraged that a tax system should be designed to cure the ills of society as a whole, and should not be used to serve individuals as expected. Wagner, an advocate of social political theory does not believe in individualist approach to a problem but, rather, economic problem should be looked at from its social and political context and an appropriate solution proffered thereof. Pressures from economic, social and political groups to protect and promote its interest as well as administrative inability to efficiently collect taxes at a reasonable cost have forced authorities to reshape tax structure to accommodate these pressures. Chigbu, Akujuobi and Appah (2012) are of the view that the tax system should be directed towards the health of the society as a whole, since individuals are essential part of the wider society and the society is made up of individuals more than the sum total of its individual members. Tax revenue provides a potent set of policy tools to the governments which should be efficiently used for correcting economic and social problems of the people such as income disparities, regional differences, cyclical fluctuations unemployment, and so on. The socio-political theory of taxation looks at how tax affects the economy as a whole as against individuals. Therefore, decision taken at any particular time should be based on what the government considers to be of necessity and beneficial to the society. This theory is associated with the normal development process and represents a standard against which we can compare the country's particular empirical evidence.

This theory relates to the present study based on the fact that government in a bid to generate adequate revenue and meet citizens' needs and improve their lifes, expands her tax net to include taxation of digital transactions. Thus, this study is hinged on the socio-political theory of taxation to examine the influence of taxation of digital economy on economic growth of Nigeria.

2.3 Review of Empirical Studies

Audu and Ishola (2021) examined the effect of a digitalized economy on tax administration in Nigeria, employing a quantitative research method and an ex-post factor research design. The study covered an eight year period ranging from 2010 to 2017. Linear regression was used to analyze the secondary data for the independent variable (ICT) and the dependent variables (tax revenue and tax evasion). The result of the analysis indicates that ICT has non-significant low adverse effect on tax revenue and a non-significant low positive effect on the level of tax evasion in Nigeria.

Josiah, Ekundayo, Okoro, Adeboye, and Maduku (2020) examined the effect of data technology on tax administration. Data was collected from both primary and secondary sources. Survey research was employed through the administration of questionnaires to staffs of Federal Inland Revenue Authority in Edo State while secondary data are sourced through the review of existing information. The convenience sampling was utilized in the choice of 25 staffs from the IFRS Edo State Office. Data collected were analysed using the ordinal or ordered regression with the aid of Eviews 10 for the study estimation. The study found that; Information technology features a significant effect on assets, Information technology has no significant effect evasion and Information technology features a significant effect on tax administration.

Ajala and Adegbie (2020) investigated the effect of information technology on effective tax assessment in Nigeria using the survey research design. A sample of 641 management and administrative staff of six selected multinational companies, Federal Inland Revenue Services and Lagos State Internal Revenue Service in Lagos State were selected based on stratified sampling technique. Descriptive statistics and inferential statistics were used for data analysis. The study outcome revealed that information technology had a positive statistical significant effect on effective tax assessment in Nigeria.

Etim, Jeremiah and Dan (2020) assessed the effect of digitalization of the economy on tax compliance in Nigeria. The survey research design was used. Findings from the study showed that digitalization of the economy had an adverse effect on tax compliance level in Nigeria.

Chijioke, Leonard, Bossco, and Henry (2018) examined the impact of E-taxation on Nigerian's revenue and economic growth. Empirically, the study investigated how the implementation of E-taxation in 2015 has affected tax revenue, federally collected revenue and tax-to-GDP ratio. Secondary data sourced from the Federal Inland Revenue Service and Central Bank of Nigeria statistical and economic reports on quarterly basis from second quarter 2013 to fourth quarter 2016 which were divided into pre e-tax and post e-tax were used. The data were compared using a paired sample t-test technique. Findings from the study revealed that the implementation of e-taxation has not improved tax revenue, federally collected revenue and tax-to-GDP ratio in Nigeria. This indicates that tax revenue, federally collected revenue and tax-to-GDP ratio significantly decreased after e-taxation implementation. However, tax revenue mean difference was not statistically significant.

McCluskey, Franzsen, Kabinga and Kasese (2018) examined the effect of ICT on tax revenue amongs the selected Africa countries. A study of four African countries firms formed the focus of the study using the qualitative research method. The study findings showed that qualitative and quantitative factors had a significant effect on the importance of ICT and that ICT solutions improve own source revenues, including property tax collections. Revenue staff in each of the cities largely agrees that ICT is the only way to efficiently manage broad-based revenue sources including the property tax. This study finding indicates that ICT improved tax revenue of firms among the selected Africa countries.

Oyedokun and Mlanga (2018) examined the impact of information technology (IT) on tax administration in South East, Nigeria. Their study investigated the effect of information technology on tax productivity, tax implementation and tax planning. Descriptive survey design was employed with the administration of questionnaires to 120 staffs in the five state's Inland Revenue services of Eastern Nigeria. Data for the study was analysed using Pearson product moment correlation and multiple regression. The study revealed that information technology (Online Tax Filing-OTF, Online Tax Registration-OTR and Online Tax Remittance-OTRE) affect tax productivity, and there is relationship between OTF, OTR and OTRE on Tax Implementation-TAXIMP. A relationship exists between OTF, OTR, OTRE and Tax Planning.

Olatunji and Ayodele (2017) examined the impact of information technology on tax administration in south west, Nigeria. It specifically investigated the effect of information technology on tax productivity and the relationship between information technology on tax implementation and tax planning. Descriptive research design was employed, of which questionnaire was used to gather data and analysed with multiple regression and pearson product moment correlation. The study revealed that information technology (Online Tax Filing-OTF, Online Tax Registration-OTR and Online Tax Remittance-OTRE) affects tax productivity and there is a relationship between OTF, OTR and OTRE on Tax Implementation-TAXIMP. This indicates that ICT has a significant effect on tax productivity in South Western Nigeria.

Koyuncu, Yilmaz and Unver (2016) explore the impact of ICT penetration on tax revenue using a sample of 157 countries. An unbalanced panel data set for the periods 1990 to 2013 and four ICT penetration indicators as well as three tax revenue indicators were used to examine whether ICT penetration

contributes to increase in tax revenue. Using univariate and multivariate time effect models, showed a highly statistically significant positive correlation between ICT penetration and tax revenue. This finding is statistically significant and valid for four ICT penetration indicators and three tax revenue indicators. The study outcome suggests that ICT penetration increases tax revenue across countries between 1990 and 2013, controlling for other factors that may contribute to increase in tax revenue.

Oseni (2016) examined the nexus of information and communications technology in administration of tax in Nigeria. The study employed the qualitative research method using the content analysis technique to highlight the challenges that are peculiar to tax administration in Nigeria. The periods where the rule of the thumbs were used in determining the assessable income of tax payers compared to the recent times where ICT are used in tax administration to near pinpoint accuracy were analysed. The study found that with the use of ICT, leakages were reduced as there is no hiding place for tax evaders using this modern technology since all potential taxpayers are captured by the system. Invariably, the study indicated that ICT exposes the activities of tax evaders in Nigeria.

Schaefer and Spengel (2002) examined the effect of increased ICT use on international corporate taxation, with emphasis on tax attributes and scope of taxation. Secondary data were used as materials such as textbooks, Journals, Newspapers and other official documents of the Federal Inland Revenue Services (FIRS) both in print and electronics were widely consulted. The study adopted a qualitative research design. It is argued that the concept of capital export neutrality shall prevail, as it is deemed to be the most appropriate to the changed economic structure. With regard to the tax attributes in the source state, an enlargement of the notion of a permanent establishment in order to shift tax revenues to the source state is not recommendable. Concerning the tax attributes in the residence state, it is shown in how far problems might arise and which alternatives might constitute a solution. They found that ICT facilitates tax shift from host countries of subsidiaries to the home country of the parent company. As regards the scope of taxation, international corporate taxation should base taxation on residence principle.

3. METHODOLOGY

3.4 Method of Data Collection

This study used the secondary source of data collection. The time series data for the period 1995-2021 was obtained from the Central Bank of Nigeria Statistical Bulletins and Federal Inland Revenue Annual Statistical Bulletins (various issues). Data generated from the CBN and FIRS Statistical Bulletins were presented and used for the study analysis. The CBN and FIRS Statistical Bulletins were chosen as the primary focus because, these sources are commonly regarded as a major official and legal data source of government (Gray, 2002).

3.5 Method of Data Analysis

The econometric analysis is the second method used in this study. The relationship between withholding tax, value added tax, and companies' income tax from digital economy and real gross domestic product was estimated using a series of estimations and testing procedures conducted in line with the objectives of the study. This is a dynamic structure devised for the empirical analysis. For the purpose of empirical evaluation, the autoregressive distributed lags (ARDL) approach was adopted in the analysis of the data in Furthermore, the statistical procedures were programmed using E-views 9.1 statistical software for windows.

3.6 Model Specification

This study adapts the model below:

$$RGDP_t = ß_0 + ß_1WHT_t + ß_2VAT_t + ß_3CIT_t + \varepsilon_t \quad \ldots\ldots\ldots(3.2)$$

Where:

RGDP= Real Gross Domestic Product

WHT = Withholding Tax

VAT = Value Added Tax

CIT = Companies Income Tax

t = Time dimension of the variant

ε = error term

$ß_0$ = the intercept coefficient

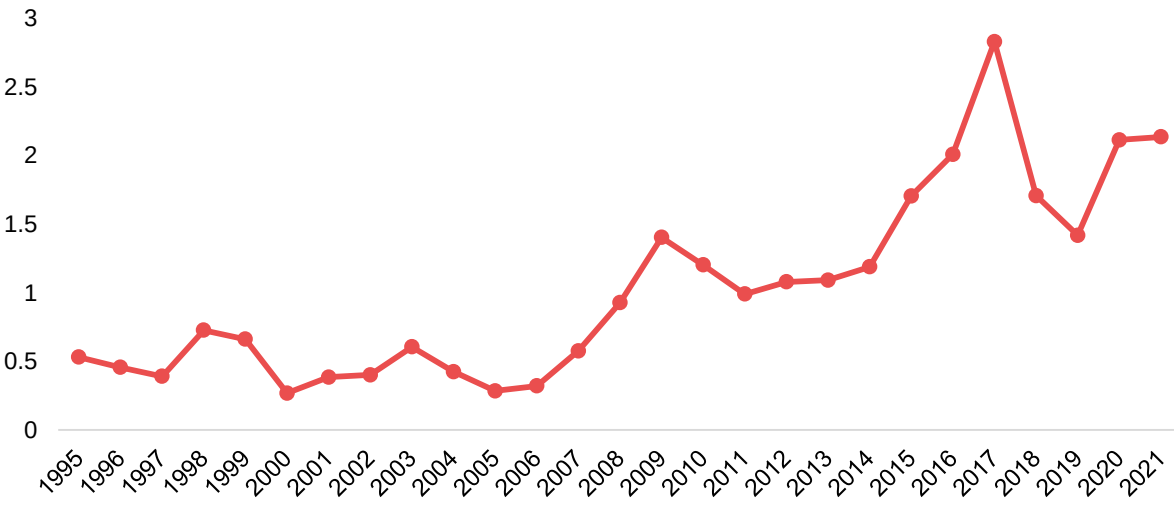
$ß_1$ – $ß_3$ = the slope coefficients

4. Presentation and Analysis of data

4.1 Trend Analysis of Data

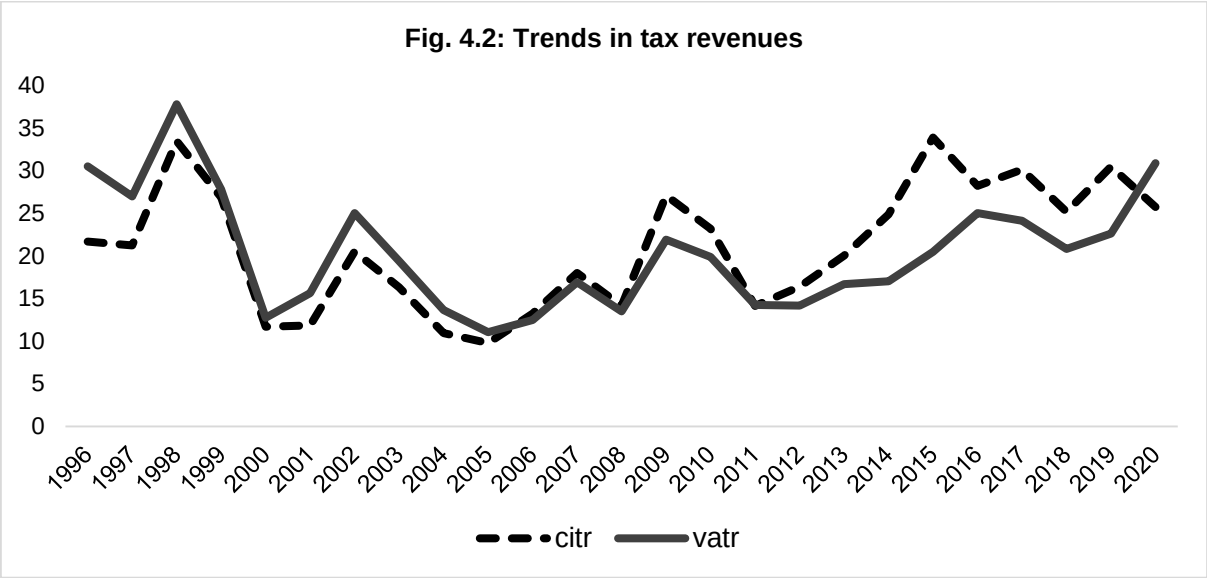
In Figure 4.1, the trend in withholding taxes is presented. It can be seen that the taxes were low between 1995 and 2006. The trend however increased sharply after 2007 – perhaps due to the sharp growth of financial services in the country. Since then, there has been steady growth in the taxes, except between 2010 and 2015.

Fig. 4.1: Trend in witholding tax to total tax ratio



Source: Researcher's computation based on data from CBN

Trends in company income tax and value added tax revenues are also shown in Figure 4.2. These trends are in terms of the ratios of each tax component in total tax revenue. Before 2012, the shares of both tax revenue streams moved *interdem* with very rapid upward increases and declines. For instance, from a high proportion of 37.8 percent in 1998, the share of VAT in total tax dropped to 12.7 percent in 2000 and further quickly rose to 25.0 percent in 2002. The share of CIT also followed similar trend over the period. There was a slight divergence in the trend after 2010 when CIT rose very rapidly but VAT moved in more steady form. Since then, CIT share in total tax has remained larger than that of VAT in Nigeria.



Source: Researcher's computation based on data from CBN

4.1.2 Descriptive Statistics of Data in the Study

The descriptive statistics of the time series data for the variables used in the study are reported in Table 4.1. The Table shows the mean and other moment conditions for each of the variables. From the Table, it can be seen that average growth rate GDP in the country is 4.82 over the period, which is quite low for the country. The minimum and maximum values of the growth of real GDP clearly indicate that its growth has fluctuated strongly over the period with values reaching 15.33 percent and -1.79 percent. This strong swings in real GDP growth have implications for welfare in the economy. This instability further underscored by the large standard deviation value (relative to the mean RGDPG).

Table 4.1: Descriptive Statistics

Variable	Mean	Max.	Min.	Std. Dev.	Skew.	Kurt.	J-B	Prob.
RGDPG	4.82	15.33	-1.79	3.66	0.55	4.10	2.62	0.27
DIGITG	16.15	77.67	-1.04	15.86	2.34	9.70	2.32	0.18
WHT	34.54	108.01	0.47	35.18	0.66	2.15	2.66	0.26
VAT	532.18	1566.95	32.50	469.25	0.71	2.51	2.48	0.29
CIT	598.11	1604.70	23.10	526.89	0.38	1.65	2.60	0.27
OPEN	37.25	53.28	20.72	9.16	-0.01	2.14	0.80	0.67
GFCF	24.32	40.55	14.17	8.46	0.41	1.99	1.83	0.40

Source: Researcher's computation based on data from CBN

The contribution of the digital economy was 16.15 percent on average over the period. This is a large value and shows that the digital economy is large in Nigeria. Among the tax revenue variables, withholding taxes is the lowest at 34.54 billion naira on average, while CIT is the largest with 598.11 billion naira on average over the study period. For all the variables in the descriptive statistics, the Jarque-Bera (J-B) statistics are all non-significant at the 5 percent level. This shows that the null hypothesis of normal distribution is accepted for the datasets.

Apart from the descriptive statistics, another important background evaluation of the datasets is the correlation among the variables. In Table 4.2, the correlation matrix is presented. It is seen that RGDP has positive correlation with all the variables in the study, indicating that these variables and RGDP move in the same direction. There is also strong positive correlation among the tax variables, with that between

WHT and VAT at 0.96, and the one between CIT and VAT at 0.95. This implies that all the taxes in Nigeria rise together over time. It can also be seen that the digital economy has very strong positive correlations with all the three tax variables.

Table 4.2: Correlation Matrix

	RGDP	DIGIT	WHT	VAT	CIT	GFCF	OPEN
RGDP	1.00						
DIGIT	0.98	1.00					
	(0.00)						
WHT	0.92	0.95	1.00				
	(0.00)	(0.00)					
VAT	0.93	0.98	0.96	1.00			
	(0.00)	(0.00)	(0.00)				
CIT	0.97	0.97	0.94	0.95	1.00		
	(0.00)	(0.00)	(0.00)	(0.00)			
GFCF	0.76	0.63	-0.56	-0.51	-0.63	1.00	
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)		
OPEN	0.62	0.61	-0.62	-0.60	-0.63	0.34	1.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.08)	

Source: Researcher's computation based on data from CBN

4.2.1 Unit Root and Cointegration Analysis

Table 4.3: Unit Root test for Variables

Variable	ADF Test		Order of Integration
	Levels	*First Difference*	
RGDP	-1.78	-3.56	I[1]
DIGIT	-1.86	-3.64	I[1]
WTH	-1.14	-5.76	I[1]
VAT	-1.58	-3.36	I[1]
CIT	-2.28	-3.99	I[1]
GFCF	-1.05	-3.4	I[1]
OPEN	-2.19	-5.55	I[1]

*Note: * indicates signifies at 5 percent; critical values are reported in parentheses below each test value*

The datasets are shown to be integrated of the same order, indicating that the test for common stochastic trends in the data series required is the Bounds test procedure to further determine the time series properties. Moreover, there is the need to determine whether the frictions factors are forcing variables in the equation specified.

4.3 Analysis of Regression Results

The results of the estimated ARDL model for the relationships among the variables are presented and analysed in this section. A better way of observing the dynamic relationships in the study is to consider both the short run and the long run impacts. Also, the roles of the digital economy and the taxation of the sector on the economy are disaggregated. Thus, there are two stages in the analysis: first, the short run estimates based on the cointegrating equations (along with the characterisation of the long run properties) are presented and then the long run estimates are analysed.

In Table 4.4, the results of the effects of digital economy and other tax variables on the economy are presented. In the result, the adjusted R-squared value is 0.98, indicating that over 98 percent of the

systematic variations in RGDP are explained by the explanatory variables in the model. The short run relationships are presented in the upper panel of the Table. In the result, the coefficient of lagged digital economy is significant and positive, while the coefficient of the current variable is not significant. From this result, it is seen that the digital economy has a delayed short run impact on real GDP in Nigeria. The coefficient of VAT is however significant for the current and first lag. These coefficients are negative, indicating that VAT has a significant negative impact on the economy in the short run. For the CIT, only the coefficient of the first lag is significant and positive indicating that CIT has a delayed impact on the economy in the short run. The other control variables have varying impacts on short run movements in real GDP.

Table 4.4: Results of Digital Economy and Economic Growth

Variable	Coefficient	t-Statistic	Prob.
Short run results			
ΔDIGIT	0.002	0.138	0.894
$\Delta DIGIT_{t-1}$	0.094	6.402	0.000
ΔVAT	-0.051	-3.377	0.010
ΔVAT_{t-1}	-0.098	-3.424	0.009
ΔCIT	0.007	0.896	0.396
ΔCIT_{t-1}	0.033	4.405	0.002
ΔGFCF	-0.086	-8.456	0.000
$\Delta GFCF_{t-1}$	0.058	5.065	0.001
ΔOPEN	-0.004	-0.804	0.445
$\Delta OPEN_{t-1}$	0.022	3.963	0.004
ECM_{t-1}	-0.642	-11.864	0.000
Adj. R-sq.	0.980		
D-W stat.	2.689		
Long run results			
DIGIT	-0.121	-1.372	0.207
VAT	0.440	4.627	0.002
CIT	-0.042	-1.041	0.328
GFCF	0.201	4.093	0.004
OPEN	0.059	2.724	0.026
C	10.318	31.566	0.000

Source: Researcher's computation based on data from CBN

The coefficient of the error correction term has the expected negative sign and is significant in the equation at the 1 percent level, which indicates the presence of long run stability in in the economy based on movements in taxes and the other variables. The coefficient of the ECM term is relatively high at -0.642, suggesting that the adjustment to long run equilibrium in the economy is slow. Up to 64 percent of the adjustment is completed in the first period.

In the long run result (in the second panel of Table 4.5), it is seen that the coefficient of DIGIT failed the significance test at the 5 percent level. This implies that the digital economy in Nigeria has no significant impact on the growth of the economy in Nigeria. The coefficients of VAT and GFCF are significant at the 1 percent level. This shows that VAT has significant impact on economic growth in Nigeria. On the other hand, the coefficient of CIT fails the significance test at the 5 percent level, suggesting that CIT does not significantly influence economic growth in Nigeria in the long run.

The results for the impact of withholding tax on the economy, the estimates are presented in Table 4.6. In the estimates, the short run coefficient of WHT is significant at the first lag. This shows that withholding tax has a delayed impact on economic growth in the short run. This implies that when there is an increase in the taxation of the digital economy, the impact in the short run is delayed over a period. The coefficients of the other variables in the short run are similar to those of the estimates in Table 4.5. The coefficient of the error correction term in the withholding tax estimates (Table 4.6) has the expected negative sign and is significant in the equation at the 1 percent level, which indicates the presence of long run stability in in the economy based on movements in taxes and the other variables. The coefficient of the ECM term is relatively high at -0.771, suggesting that the adjustment to long run equilibrium in the economy is slow. Up to 77 percent of the adjustment is completed in the first period.

Table 4.6: Results of Taxes on Digital Economy and Economic Growth

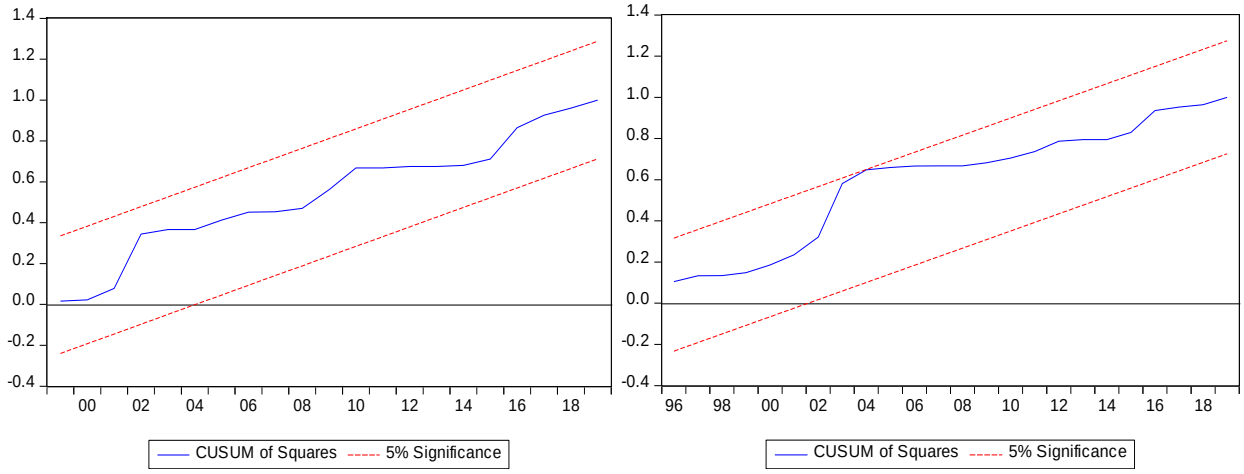
Variable	Coefficient	t-Statistic	Prob.
Short run results			
ΔWHT	-0.002	-0.388	0.707
ΔWHT_{t-1}	0.017	3.620	0.006
ΔVAT	-0.054	-3.667	0.005
ΔCIT	0.002	0.212	0.837
ΔCIT_{t-1}	0.040	4.946	0.001
ΔGFCF	-0.075	-7.409	0.000
$\Delta GFCF_{t-1}$	0.056	4.857	0.001
ΔOPEN	-0.032	-5.353	0.001
$\Delta OPEN_{t-1}$	0.026	4.572	0.001
ECM_{t-1}	-0.771	-21.536	0.000
Adj. R-sq.	0.975		
D-W stat.	2.567		
Long run results			
LWHT	-0.002	-0.079	0.939
LVAT	0.313	9.295	0.000
LCIT	-0.029	-0.647	0.534
LGFCF	-0.168	-6.487	0.000
LOPEN	-0.087	-3.613	0.006
C	10.006	55.062	0.000

Source: Researcher's computation based on data from CBN

For the long run results in the lower half of the Table, the coefficient of WHT fails the significance test at the 5 percent level. This shows that withholding taxes or taxes in the digital economy do not have significant impact on economic growth in the long run. The coefficient of VAT is significant at the 1 percent level and positive, which shows that VAT has had significant impact on the economy in the long run. The coefficient of CIT fails the significance test at the 5 percent level. Thus, it is seen that CIT does not have significant impact on economic growth in the long run. Thus, among the tax variables, only VAT is seen to have significant impact on long run economic growth in Nigeria.

Finally, robustness checks are provided by testing the stability of the estimated data set across the cross sections in the sample. This helps to eliminate doubt about possible outlier regression for any of the groups in the sample. The chart in Figure 4.3 shows the result of the CUSUM of squares test. It can be seen that the CUSUM of squares line for the result lies entirely within the dotted 5 percent significance bound line throughout the chart. This reveals that the estimation is stable within the analysis.

Fig 4.6: Parameter Stability Charts for Results with DIGIT and WHT



4.3.1 Results for Granger Causality Test

The Granger causality test is used to examine the interrelationship among the digital tax and economic growth variables. In the result showed in Table 4.7, it is seen that the coefficient of causality running from real GDP to the tax variable is significant. This implies that it is economic growth that causes digital tax income growth and not the other way around.

Table 4.7: Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
RGDP does not Granger Cause DIGIT	25	14.7597	0.0001
DIGIT does not Granger Cause RGDP		0.69720	0.5097
RGDP does not Granger Cause WHT	25	9.98173	0.0010
WHT does not Granger Cause RGDP		3.42127	0.0527

Source: Researcher's computation based on data from CBN

5. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

In this study, the effect of taxation of digital economy on economic growth of Nigeria was examined. Withholding taxes, VAT and company income taxes related to the digital economy were examined in the study. Data used for the study involved annual time series data for the period 1995 to 2021. The autoregressive distributed lags (ARDL) approach was adopted in the analysis in the data to determine both the short run and long run impacts of the digital taxes on the Nigerian economy. In general, there is evidence that the taxation of the digital economy has had little effects on the economy of Nigeria. In particular, the following findings were made in the study:

- That withholding taxes obtained from the digital and non-digital economies have no significant long run impact on economic growth in Nigeria. The impact was only observed to be significant in the short run.
- That VAT revenue in the digital and non-digital economies has significant dynamic impact on economic growth in Nigeria, both in the short run and in the long run.
- That CIT with respect to the digital and non-digital economies has no significant impact on economic growth in Nigeria.

- That a significant degree of relationship exists between digital and non-digital economies tax variables and real gross domestic product of Nigeria.

5.2 Conclusion

The mobilisation of tax revenue has become a critical policy objective for the public sector in Nigeria in recent times. Also, revenue mobilisation through diversification and expansion of the tax system has become more relevant in the current economic situation in Nigeria. Several tools and measures are being adopted to address this situation in Nigeria. The focus of this study was on the current change in the structural composition of the economy in terms of the digital economy. The persistent expansion of the digital world provides greater impetus for streamlining tax administration in the country. This study has shown that the tax effort in the digital economy has not been enough. There is therefore need for better focus on the digital economy by the fiscal authority in order to maximise the tax revenues.

5.3 Recommendations

The results obtained in the analysis so far are far reaching and necessitate certain recommendations. First, the study has shown that withholding taxes in the digital economy do not have strong effects on economic growth in Nigeria. Thus, there is need for government to pay more cognizance to the digital structure of the economy. The tax system needs to be all-encompassing and embrace current shifts in economic activities, especially as they concern the digital economy. For instance, reforms should consider players in new digital finance (e.g., cryptocurrency) systems as well as other digital activities in the economy.

Also, the authorities need to effectively obviate the different components of taxes when making tax policies in the digital economy in Nigeria reform, especially given that the effects of the different tax components are different on economic growth over time.

Moreover, there is need for deeper and more efficient reforms in the tax system, namely, the focus on the digital economy and economic transformation in the country. This can be done by making the authorities to increase tax capacities by improving administration and reducing weak fiscal institutions.

The result shows that it is only the VAT component of digital economy taxation that matters for economic growth in Nigeria. It is therefore recommended that a more practical VAT administration structure needs to be adopted in Nigeria. This can be achieved by giving more autonomy to the state governments in administering VAT, thereby improving this stream of revenue for the states.

REFERENCES

1. Adereti, S. A., Sanni, M. R., and Adesina, J. A. (2011). Value added tax and economic growth of Nigeria. European Journal of Humanities and Social Sciences, 10(1), 456-71.
2. Aguolu, O. (2010). Tax reform in Nigeria: unrealized expectations. *Bulletin for International Taxation*. 64(1), 61-7.
3. Arowoshegbe, A. O., Uniamikogbo, E., and Aighenohuwa, O. O. (2017). Tax revenue and economic growth of Nigeria. *Scholars Journal of Economics, Business and Management*, 4(10), 696-702.
4. Asika, N. (2006). *Research methodology in the behavioral sciences*. Lagos: *Longman Publishers.*
5. Ihenyen, C. J., Mieseigha, E. G. (2014). Taxation as an instrument of economic growth: The Nigerian perspective. *Information and Knowledge Management*, 4(12), 49-53.
6. Institute of Chartered Accountants of Nigeria (2020). *Taxation of digital economy*. Advanced taxation study pack. VI publishers, Lagos. www.ican-ngr.org

7. Institute of Chartered Accountants of Nigeria (2020). *Base Erosion and Profit Shifting*. Advance Taxation Study Pack, VI publishers, Lagos. www.ican-ngr.org
8. Cockfield, A. (2006).The rise of the OECD as informal 'World Tax Organization' through national responses to e-commerce tax challenges. Yale Journal of Law and Technology, 8 (1).
9. Akinola, F. (2017). The economic performance of budget deficit in Nigeria. *Research Journal of Finance and Accounting*, 8(8). available online at https://core.ac.uk/download/pdf/234632005.pdf
10. Aliu, G. (2021). The digital economy and the tax landscape: examining the evolutionary trends of law and policy in Nigeria. *UNILAG Law Review*, 4(2). available online at https://unilaglawreview.org/wp-content/uploads/2021/02/Article5.pdf
11. Olbert, M., and Spengel, C. (2017). International taxation in the digital economy: Challenge Accepted? *World Tax Journal*.
12. ACTION 1: 2015 final report addressing the tax challenges of the digital economy", OECD/G20 base erosion and profit shifting project. available online at https://www.oecd ilibrary.org/docserver/9789264241046en.pdf?expires=1626029291&id=id&accname=guest&checksum=165D2DB5AEA58137F639BE1E1B604DB6
13. Addressing the tax challenges of the digital economy, introduction to tax challenges of the digital economy, OECD library, 2014.
14. Available Online At Https://Www.Oecd-Ilibrary.Org/Docserver/9789264218789-4-En.Pdf?expires=1623145852&id=id&accname=guest&checksum=5418E9A4FB0CDF2648A2BAEFED2FD1FE
15. Addressing the tax challenges of the digitalisation of the economy – policy note, oecd/g20 base erosion and profit shifting project, January, 2019, available online https://www.oecd.org/tax/beps/policy-note-beps-inclusive-framework-addressing-tax-challenges-digitalisation.pdf
16. Members of the OECD/G20 inclusive framework on BEPS joining the statement on a two– pillar solution to address the tax challenges arising from the digitalisation of the economy as of 9 July 2021, available online at https://www.oecd.org/tax/beps/oecd-g20-inclusive- framework-members-joining-statement-on-two-pillar-solution-to-address-tax-challenges-arising-from-digitalisation-july-2021.pdf
17. OECD (2020).*Tax challenges arising from digitalisation – report on pillar two blueprints: inclusive framework on BEPS, OECD/g20 base erosion and profit shifting project*. OECD Publishing, Paris, https://doi.org/10.1787/abb4c3d1-en
18. Organization for Economic Cooperation and Development. (OECD, 2017). Articles of the model convention with respect to taxes on income and on capital", available at https://read.oecd-ilibrary.org/taxation/model-tax-convention-on-income-and-on-capital-condensed-version 2017_mtc_cond-2017-en#page5
19. Bouncing back: Nigeria economic sustainability plan, 2020, available online at https://www.budgetoffice.gov.ng/index.php/nigeria-economic-sustainability plan?task=document.viewdoc&id=819
20. Buhari govt to impose heavy tax on Facebook, Twitter, other tech companies in Nigeria", Daily Post, 27 June 2021, available online at https://dailypost.ng/2021/06/27/buhari-govt-to-impose-heavy-tax-on-facebook-twitter-other-tech-companies-in-nigeria-osinbajo/

21. Establishment of non-resident persons' tax office, FIRS public notice, available online at https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/firs-public-notice-on-the- establishment-of-non-resident-persons-tax-office.pdf

22. Masekesa, F. (2021). Nigeria, South Africa and Kenya dominate the e-commerce industry in SubSaharan Africa. *The Asian Banker*, available online at https://www.theasianbanker.com/updates-and-articles/nigeria,-south-africa-and-kenya-dominate-the-e-commerce-industry-in-sub-saharan-africa

23. Nigeria Fiscal Guide (2021). KPMG, March, 2021, available online at https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/nigeria-fiscal-guide-2021.pdf

24. Nigeria's Finance Act 2020: Insights series and sector analysis, available online at https://www.pwc.com/ng/en/assets/pdf/nigeria-finance-act-2020-insights-series-and-sector analysis.pdf

25. Olayemi, A., and Oluwajobi, V. (2017). Taxing the Nigerian digital economy, available at https://www.lexology.com/library/detail.aspx?g=05a34a67-f49b-4674-9b73-3f7e9fc0004b

26. What Nigeria's signing of the OECD's multilateral instrument means for taxpayers, PWC transfer pricing series, November 2017, available online at https://www.pwc.com/ng/en/assets/pdf/implications-of-oecd-mli.pdf

27. Odimma, S. (2020). Finance bill and the clarity paradox. *Nigerian Tax Journal*. available at https://assets.kpmg/content/dam/kpmg/ng/pdf/tax/nigerian-tax-journal-2020.pdf