

Corporate Tax and the Digital Economy: How Corporate Taxation Has Affected Government Revenue in the Digital Economy

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Abstract: This study investigates the relationship between business taxation and government revenue in the context of the evolving digital economy. Utilising secondary data from published literature covering 32 years from 1990 to 2022, the study employs an ex-post facto research design to assess long-term patterns and causal correlations. The paper findings indicate that web-based payments (WEB) have a markedly adverse effect on government revenue, implying that the rise in digital transactions may diminish conventional taxable activities or introduce deficiencies in current tax structures. On the other hand, corporate income tax (CIT) has a positive and statistically significant influence on government revenue, indicating that it remains important for fiscal sustainability. The paper shows that about 0.03% of any long-term imbalance between corporation tax, web payments, and government revenue is fixed each year. This means that the process of getting back to equilibrium is slow but steady. These results have significant implications for policymakers, underscoring the need to align digital payment systems with current tax frameworks. As economies become increasingly digital, governments must establish tax laws that are flexible enough to prevent revenue leakage while also fostering innovation and digital growth. To ensure steady and long-lasting revenue production in the digital age, we need to strike a balance between expanding digital financial systems and enhancing corporate tax administration.

Keywords: Corporate Tax; Government Revenue; Digital Economy; Web Payment; Company Income Tax; Vector Error Correction Model; Ex-Post Facto Research Design; Ordinary Least Squares.

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1. Introduction

The digital economy has undoubtedly transformed the global economy by introducing new business models, technologies, and approaches to doing things [3]. The constant growth in information and communication technology, combined with the increasing depth of internet penetration, has made it an economy where more transactions, production, and delivery of services are happening online. Such a transformation goes against the usual economic and taxation systems, particularly corporate taxation, which was hitherto premised on the physical location and location-based taxation system. The majority of governments, including Nigeria's, continue to grapple with how best to adapt their taxation systems to ensure guaranteed sustainable revenue mobilisation in an era of unprecedented digitalisation [10]. The digital economy encompasses all economic

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activity, including e-commerce, internet marketing, cloud computing, digital platforms, social media, and applications enabled by mobile devices [6]. It is more than just selling electronic goods and services; it involves platform-mediated transactions, such as ride-hailing, online marketplaces, and subscription software delivery.

The digital economy, according to Oladipupo and Obazee [2], is exclusively composed of online transactions between manufacturers and consumers of electronic products and services, mediated solely by the internet. The inherent nature of goods and services, as well as how they are created and the channels through which they are marketed and distributed, undergo continuous changes with the advent of digital technologies. Zhu [4] notes that the increasing use of computers and internet technologies is transforming production processes, the nature of products and services offered, and promotional and consumption channels at an accelerating pace. This acceleration was particularly dramatic in the case of the COVID-19 pandemic, which triggered historic levels of digital adoption worldwide [26]. The most characteristic trait of the digital economy is its ability to enable corporations to operate within foreign markets without a physical presence in host countries [15]. This feature, while promoting efficiency, innovation, and global integration, poses significant challenges for tax systems based on a territorial framework [21].

Mwangangi and Memba [1] note that digitalisation enables companies to conduct business in countries where they do not have a physical presence, posing challenges for governments in determining tax liabilities. Traditional physical presence-based corporate tax regimes, as a base for tax liability, are thus becoming inadequate in taxing the economic activities of multinational digital companies. Taxes, as broadly defined, are involuntary payments imposed by the government on residents and institutions to finance public goods and services, including infrastructure, social welfare, and economic growth (Corporate Finance Institute [CFI]). The corporate income tax (CIT) is one of the most stable and predictable sources of government revenue because the system is uniform and less susceptible to fluctuations. Corporate tax is a direct tax that is payable on profits of corporations and other similar legal persons, resident or non-resident. In Nigeria, CIT remains a cornerstone of fiscal policy, generating significant revenue for the government. Resident corporations are taxed on their worldwide profits, while non-resident companies are taxed only on profits sourced in Nigeria.

Zhang et al. [35] observe that corporate taxation is levied on both public and limited liability corporations, with Nigerian legislation taxing the profits of corporations, such as non-resident companies gaining income within the country at a 30% rate. With the rise of digital businesses, some of which operate remotely without fixed work locations, significant loopholes have been created in corporate tax administration and collection. Nigeria's economy is developing at a rapid rate, with the digital economy playing an increasingly decisive role in its growth trajectory [27]. The corporate tax regime in Nigeria has not kept up with the digital economy, and the consequence is a gigantic challenge. One of the main issues is where to place the tax burdens of digital businesses in Nigeria [28]. As most of these businesses lack a physical presence, it is often difficult to accurately determine their taxable income. This sets back Nigeria's revenue mobilisation process, as digital firms go unaccounted for in paying their share of taxes [29]. Add to that the insufficiency of current tax laws, and the challenge becomes even more complicated. Existing tax laws were predominantly formulated before the advent of the digital economy and therefore do not adequately address its unique challenges. This legislative loophole has created inconsistencies and uncertainties in taxing digital companies, discouraging investment within the industry while withholding tax revenues from the government.

The inefficiency in Nigeria's tax administration infrastructure further adds to the issue, limiting the government's capacity to track, evaluate, and collect taxes within the rapidly expanding digital economy. Nigeria's corporate tax and digital economy experience is characterised by inaccurate tax legislation, difficulties in determining tax liabilities, and weak administrative controls. It is essential to address these difficulties to enable the digital sector to contribute significantly to government revenues while continuing to drive economic growth. Against this background, this study aims to investigate the impact of corporate taxation on Nigeria's digital economy, with a particular focus on its effect on government revenue. Specifically, it attempts to examine the relationship between corporate tax and the digital economy and subject the impact of corporate tax on revenue raising in Nigeria's digital economy to testing. In seeking to achieve these objectives, the study addresses two research questions: how corporate tax affects government revenue in Nigeria's digital economy, and what causal relationship exists between corporate tax and government revenue within this context. Two hypotheses guide the study in its effort to provide empirical evidence.

The first postulates that company income tax plays a significant role in generating government revenue in the digital economy, whereas the alternative does not. The second postulates a significant causal relationship between company income tax and government revenue, while the alternative fails to support this postulate. The study is pertinent to different stakeholders. For businesses, the study will provide deeper insights into the evolving landscape between corporate taxation and the digital economy, enabling them to make informed choices while maintaining tax compliance. Employees will gain a deeper understanding of how the digital economy revolutionises taxation, and by extension, the macroeconomy in which they operate. To the government, the research will provide evidence-based information that informs tax administration reforms and policy innovations aimed at enhancing revenue mobilisation in the digital economy. The study will contribute to the literature by

offering fresh insights into the nexus between corporate tax and the digital economy in Nigeria, thereby creating opportunities for scholarly collaboration, policy development, and engagement with industry practitioners.

2. Literature Review and Theoretical Framework

2.1. Conceptual Review

According to Wadesango et al. [21], a firm's ability to communicate online encourages it to conduct business electronically and provide online services. To minimise human involvement, all promotions, purchases, and payments are processed online. The term "digital economy" refers to the portion of economic output that is entirely or primarily derived from information and communication technology (ICT) with a business model focused on digital goods or services. The digital economy, according to Osegbue et al. [13], consists of online payment systems, ride-hailing apps, cloud computing, participatory networked platforms, online advertising, and online trade platforms. Digital service providers include Netflix, PayPal, LinkedIn, Twitter, Facebook, Amazon, Alibaba, and AliExpress. When coupled with better digital skills and literacy, digital ID systems, Economic opportunity, and inclusive growth could be revolutionised by the use of digital payments and other financial services, digital support for startups and small businesses, and digital interconnection. Digital connectivity can revolutionise economic potential and inclusive growth when combined with enhanced digital capabilities and skills, digital identity systems, digital support services, online payments, and other financial services for new and small businesses. The added expense of providing a new good or service could be offset in a digital economy, particularly through online service delivery. The digital economy promotes productivity, employment, and inclusive growth.

2.2. Theoretical Review

Corporate Tax Theory: The tax code in the United States has two levies that apply to corporate profits. This is a strange, unjust, ineffective, and two-tiered tax structure. In Washington, the negative impacts of double taxation are well-documented. Typically, the Treasury, a few Presidents, tax experts, and the general public have attempted to harmonise the tax system; however, they consistently fall short. I don't understand why the double-level tax still exists. Unquestionably, several changes are needed to the tax system immediately. However, these actions are frequently supported by a well-organised interest group that fiercely defends its preferred position. Conversely, the corporate tax appears to penalise the corporate sector, which is sizable, well-organised, and generally capable of defending its own interests, while providing no particular benefits. Discusses ideas for combining personal and corporate taxes into one system to end double taxation.

Populist Entity Theory: The majority of scholars have proposed the theory that the continuation of the double tax is caused by public support for it. These justifications for allowing the people to pay taxes twice could be broadly categorised as populist. According to one theory, the persistence of double taxation is a result of the general public's understanding of corporations as independent legal entities, rather than merely as a means of distributing profits to shareholders. This hypothesis posits that the public's support for the double tax stems from their conviction that everyone, including corporations, should pay taxes on their income. Although it only partially captures how the public views corporations, the entity theory was the first justification for adopting a separate company tax. The entity theory would still fall short of explaining all the stylised realities of company taxation, even if the general public were to fully accept it. The existence of two different taxation levels can only be explained by the entity theory. It contains nothing spoken.

Logic-Based Populism: A different populist defence of the company tax is that it is essentially a form of capital gains tax. This argument posits that those who do not directly own significant quantities of capital favour the corporate tax because they believe that individuals who own capital should be responsible for paying it.²⁶ Any of the three crucial facts cannot be explained by the populist justification for the double tax's continued existence. First, even if this logic were to hold, it would only be able to explain why corporate capital is taxed, not why profits to capital are taxed twice.²⁷ Second, it is impossible to explain Congress's opposition to integration, even though it often passes large capital tax cuts like the ACRS, corporate rate cuts, and capital gains reductions. ²⁸ Last but not least, it is not explained why corporate management supports ACRS and associated cuts with more vigour than they support integration.

Disclaimed Taxes and Congress: According to some critics, the corporate tax continues to exist because it furthers congressional goals. The "hidden tax" argument is the most popular version of this theme. Because the general public does not realise that it ultimately bears the burden of the tax, corporate tax is a politically convenient method of generating income.²⁹ According to one interpretation of the hidden-tax theory, taxpayers think of themselves as capital owners even when they are unaware that they are also stockholders who must pay corporate taxes. Each fault of the rational-populist hypothesis is present in this explanation. Firstly, it might explain the corporate tax, but not the additional tax on dividends. In fact, if voters perceive themselves as shareholders, Congress might integrate the tax code, place the entire cost on businesses, and provide shareholders with full dividend and capital gains relief to better obscure the tax burden. Second, Congress would have little incentive to

implement policies like ACRS that lower effective corporate tax rates if it sought to conceal corporate taxes from the public. Lastly, this hypothesis does not clarify why. Businesses are against integration. The corporate tax is allegedly moved from company owners to other parties, such as workers, business clients, or capital in general, in whole or in part, according to a variation of the hidden-tax theory. According to this claim, voters are unaware that lower wages and higher costs are how they pay for corporate taxes. The rational-populist argument and this variant of the hidden-tax explanation both have the same fault in that they both apply universally to all capital taxes. The ACRS, which lowers effective corporate tax rates, is an example of a piece of legislation passed by Congress. It is also insufficient to explain why there are two taxation levels or why public firms do not support integration.

Theory of Technology: The main concepts of the Frankfurt School Critical Theory and early works in Science and Technology Studies are discussed in this research, along with their connections to STS. Technology criticism focuses on the threat to human agency posed by the technocratic system that rules contemporary cultures. This issue was tacitly addressed by two early STS trends: various forms of social constructivism and actor-network theory (ANT), which contested positivist and determinist ideologies that allowed for little possibility of democratic control over technology. Technology is neither value-neutral nor universal, and critical theory of technology concurs with STS in this regard. It also offers a framework for democratic interventions in technology. The difficulties posed by the critical theory of technology, as outlined by Carpentieri et al. [17], have been more closely addressed in recent years, as public participation in the development of technology policy has increased. The Frankfurt School's ideas are still emphasised in critical theory of technology, particularly in the critique of rationality in contemporary culture, which sets it apart from other contributions to STS. As a result, it connects STS to underutilised traditions of social critique. In this sense, it serves more as an invitation for STS to be exposed to a wider spectrum of modernity-related philosophies and social theories than as a true alternative to STS.

Theory of Economic Growth: One of the most significant problems in social science is understanding how some nations can be so wealthy while others remain impoverished. In addition to shedding light on the stark differences between various nations' economies, their structure, operation, and even their failures, it is crucial because these income differences have significant welfare implications. The focus on income disparities between nations does not, however, imply that income per capita is the only factor that matters or that it can be used as a "sufficient statistic" for the welfare of the typical person. The efficiency characteristics of the market economy (such as the well-known First Welfare Theorem or Adam Smith's invisible hand) do not always mean that there is no conflict between individuals or groups in society, as we will cover in more detail later. Although economic expansion typically benefits welfare, it frequently produces both "winners" and "losers." This feature of economic growth is highlighted by Joseph Schumpeter's famous theory of "creative destruction," which posits that economic growth often results in the demise of profitable relationships, businesses, and occasionally even human livelihoods. Even though civilisation is expanding, this naturally leads to conflict within the community. One of the key takeaways from political economy analyses of economic growth, which will be covered in the final section of the book, is the best way to establish institutions and laws that reward those who benefit from economic growth and prohibit them from impeding it. Why corporations have actively supported ACRS over integration, or why Congress frequently decreases the cost of corporate taxation through ACRS rather than integration, according to Osegbue et al. [13].

2.3. Empirical Review

Osegbue et al. [13] examined Corporate Investment Expenditure and Corporate Tax Aggressiveness in Ghana and Nigeria. This study examines the influence of aggressive corporate taxation on business investment spending in Ghana and Nigeria between 2010 and 2017. The sampling outcome is estimated using pooled ordinary least squares, random, and fixed effects models. The study employs dynamic models to determine significance, as endogeneity, cross-sectional dependence, serial correlation, and heteroscedasticity are adjusted for by including instruments that are uncorrelated with regressors in the underlying procedure during estimation. The indicators of corporate tax aggressiveness include tax savings, effective tax rate, book-tax difference, and temporary tax difference, with business size serving as the regulating factor. According to research, tax avoidance has a statistically significant impact on business investment spending in both countries. This demonstrates that across all model parameters, the variables related to tax aggressiveness—in particular, tax savings and the effective tax rate maintained stable, positive, and statistically significant correlations with company investment expenditure.

In other words, increasing tax savings and the effective tax rate boost new investment spending in both countries. Additional research indicates that when there is a sizable discrepancy between the income reported on financial statements and the income reported on tax returns, both countries' business total spending and new investment expenditure are reduced. Carpentieri et al. [17] examined the changes in company taxation that have occurred in the digital economy. The study examined several strategies that could support the diverse corporate taxes associated with the digital economy. This investigation combines theoretical insights with empirical data to provide a comprehensive understanding of the topic. They advocated for avoiding extra adjustments for tax purposes and maintaining a CIT base that is fully aligned with the accounting profit and loss account. A more radical option would be to completely abolish the mention of corporate income and tax businesses instead based on

cash flow, based on destination. And finally, rather than relying solely on public accounting, it may be possible to tax firms based on "presumptive" signs of activity. To distribute corporate income among decentralised jurisdictions, presumptive indicators are already utilised in federal systems.

Ogbonna et al. [33] examined the impact of taxes on Nigeria's economic growth. Research was conducted using an ex-post methodology. The analysis included businesses that paid taxes to the FIRS between 1995 and 2021 in the 36 states of the Federation and the Federal Capital Territory of Abuja. The Federal Inland Revenue Service (FIRS) Annual Report and the Central Bank of Nigeria's (CBN) Annual Statistical Bulletin were the two secondary sources of data used to gather the relevant information. The data analysis employed a technique known as Autoregressive Distributed Lags (ARDL). The study's conclusions revealed that the digital economy's withholding taxes and value-added taxes have a significant impact on Nigeria's economic growth. The digital economy, on the other hand, is not significantly impacted by Company Income Tax (CIT), which has no meaningful impact on Nigeria's economic growth. The real gross domestic product of Nigeria and tax factors related to the digital sector are, nonetheless, significantly correlated.

According to the study's recommendations, the government may need to focus more on tax leakages in the digital economy by adapting to the recent shift in economic activity and investing in ongoing training for tax officers. With an emphasis on the digital economy and Nigeria's economic change, there is also a need for effective tax system improvements in Nigeria. Last but not least, since each tax component behaves differently, authorities must avoid the complexity of the numerous tax components while establishing tax policies for Nigeria. Zhu [4] examined Nigeria's tax administration and digital economy. The study used an experimental factorial research design and a quantitative research methodology. The study was conducted over an eight-year period, from 2010 to 2017. Linear regression was used to analyse the secondary data on the independent variable (ICT) in relation to the dependent variables (tax revenue and tax evasion). ICT has a non-significantly minor negative influence on Nigeria's tax revenue, according to the analysis's results, which reveal an adjusted R-squared of -0.028 and a computed p-value of 0.406. ICT has a negligibly positive impact on the level of tax evasion in Nigeria, as evidenced by the second hypothesis' adjusted R-squared of 0.38 and estimated p-value of 0.061.

Therefore, it can be argued that the digital economy has had a limited impact on Nigeria's tax administration. To ensure that Nigeria's tax revenue authorities at all levels are not left behind in the country's transition to the digital economy, the research recommends implementing laws and processes. Usman and Saha [14] explored how the supply chain's perspective on the digital economy affected corporate taxes. This article examines the impact of the Digital Economy on Corporate Taxation from the perspective of the supply chain, focusing on the challenges associated with managing corporate taxation. The selected Chinese businesses served as the analytical object in this paper. The results highlighted the issues with Chinese businesses' tax management. It was then recommended that China implement proactive measures, including talent development, information creation, and international cooperation, to enhance the tax compliance of firms. Agbo and Nwadiolor [7] examined Lessons for African nations on how to address the problems of taxing the digital economy. This essay examines the various legislative and policy measures employed by countries worldwide to tax the digital economy and the lessons that African nations can learn from them.

To address the issues presented by the digital economy, the paper argues that African nations should participate in multilateral negotiations on international tax reform. Their final answers will have to be exclusively African because their problems are distinct from those of developed nations; they must also admit. This article examines the options available to African countries for protecting their tax bases in light of the rapidly growing global digital economy. The study employs a qualitative research methodology based on document review to analyse and comprehend the literature on the taxation of the digital economy. The paper draws on the work of the African Tax Administration Forum (ATAF), the European Commission, and the Organisation for Economic Co-operation and Development (OECD), as well as recent legislative and policy measures introduced by a few countries. It concludes with lessons that African countries can learn from these various multilateral and unilateral efforts at taxing the digital economy. The major point is that, because African countries face distinct challenges compared to more developed OECD countries, they must approach the problem of taxing the digital economy in a unique manner.

Zhu [4] examined the analysis of tax management and collection in the digital economy. The analysis utilised existing data on the size of China's digital economy from 2014 to 2019. The paper provides an overview of China's current digital economy and its impact on the country. Highlights the opportunities and difficulties facing China's present tax collection and administration approach. China's tax collection and administration. Additionally, the case analysis of tax administration and collection in China's digital economy aims to provide pertinent countermeasures and recommendations. According to the report, the digital economy's tax management practices should not only assure tax equity but also refrain from unduly interfering with the market's natural functioning. Usman and Saha [14] provided an overview of the tax challenges of the Digital Economy. The study discussed various approaches to evaluating various business models in the digital economy. The study is a conceptual and empirical enquiry. This essay examines the concept of the digital economy, its key characteristics, and its business models, while also highlighting flaws in the current international taxation system related to digital economy taxes.

The study also evaluates the nexus, data, and characterisation as key elements of the tax challenges posed by the digital economy. It offers solutions to the new issues currently faced by the international tax system. This report suggests that an international agreement is necessary to address the issue of digital businesses harming the tax system, and that prompt action is needed. Ogbonna et al. [33] examined the legal analysis of electronic commerce taxation in Nigeria. This essay examines the specific challenges faced by tax authorities in collecting e-commerce taxes under current regulations, as well as the impact of innovations in contemporary company operations. The paper used an analytical technique to evaluate tax laws, statutes, case law, expert legal opinions in textbooks, and articles pertinent to the topic of electronic transactions. It also utilised a doctrinal method of data collection. The study revealed that current tax regulations in Nigeria are among those that tax the digital economy, as they encompass all transactions, both domestically and internationally.

The taxing authorities have made progress in capturing the tax revenue from electronic trade. However, the work recommended changes to the current tax laws to address the problems that had plagued the tax system, for clarity of the provisions to taxpayers and tax administrators, as well as the difficulties of inroad into artificial intelligence and the digital economy. These changes were needed to expedite these mechanisms in use [35]. Digitalisation and environmental sustainability: Ambiguous effects on material and energy demand. *Ecological Economics*, 169, 106505. This study examines the impact of the digital economy on environmental sustainability, with a specific focus on material and energy demand. The authors find that the digital economy has ambiguous effects on material and energy demand, with some areas experiencing a reduction in demand while others experience an increase in demand [22]. The digital economy and corporate taxation: The need for reform. *Journal of Telecommunications and High Technology Law*, 17(1), 1-38. This study argues that the current international tax framework is outdated and requires reform to better address the challenges posed by the digital economy. The authors propose a range of reforms, including the introduction of a global minimum tax rate for corporations and the allocation of taxing rights based on where value is created.

Agbo and Nwadior [7] examined E-commerce (online shopping) and tax revenue in 2020. With an emphasis on Nigeria, this essay seeks to examine the global development of internet taxation and related difficulties. The study finds that issues such as tax loss and tax evasion are significant. In contrast, others, including double taxation and uncertainty, make e-commerce participants hesitant and hinder the sector's expansion. Like many other developing countries, Nigeria is gradually embracing e-commerce. Carpentieri et al. [17] examined the digitisation of the Nigerian economy and tax compliance. The study examined how Nigeria's economy has transitioned to a digital platform and its impact on tax compliance. The researchers employed a standardised questionnaire and survey methodology to collect data. The Federal Inland Revenue Service (FIRS) in Akwa Ibom State served as the primary source of the data. The data were gathered from the forty (40) staff members who comprised the entire FIRS staff. The data were analysed using basic percentages, descriptive statistics, and linear regression methods.

The findings imply that the digitalisation of the economy has a detrimental impact on tax compliance. It is advised that the Nigerian government consider creating a tax policy that supports taxing e-transactions, taxing education, and incorporating the taxation of e-transactions into the tax legislation. By doing this, tax compliance would likely increase, resulting in a higher amount of money the government receives from digital transactions. Bankole and Adetoro [23] investigated the impact of tax revenue on Nigeria's economic development and identified the differences between using GDP and HDI to establish the relationship. The ordinary least squares (OLS) regression method was employed in this study, along with a yearly temporal model of tax revenue and the Human Development Index. The findings show a significant and favourable relationship between tax revenue and economic expansion.

The results also demonstrate that the relationship between tax revenue and economic development in Nigeria is weaker when measured using HDI than when measured using GDP, indicating that GDP offers a more comprehensive picture of the relationship between tax revenue and economic development in Nigeria. The study concludes that tax revenue may be utilised in Nigeria to stimulate economic growth. To maximise tax revenue for economic development, it is preferable to base tax policy development on the Human Development Index rather than GDP. Olatunji and Ayodele [22] investigated how information technology affected the tax administration in the southwest of Nigeria. The impact of information technology on tax productivity, as well as its relevance to tax implementation and planning, was carefully examined. A questionnaire was used to gather data, and multiple regression and Pearson product-moment correlation were employed to analyse the data, all within the context of a descriptive research strategy. The study revealed that information technology (Online Tax Filing-OTF, Online Tax Registration-OTR and Online Tax Remittance-OTRE) affect tax productivity with -1.9%, 7.3% and 31.5% ($p=0.85$, 0.526 and 0.00), there is relationship of -5.9% ($p=0.520$), 9.7% ($p=0.290$) and 0.344 ($p=0.000$) between OTF, OTR and OTRE on Tax Implementation-TAXIMP and -3.8% ($p=0.684$), 14% ($p=0.140$) and 0.190 ($p=0.038<0.05$) relationship between OTF, OTR and OTRE on Tax Planning-TAXPLNN.

Adebite et al. [31] conducted an assessment study examining the global distribution of revenue loss resulting from corporate tax avoidance. The authors find that developing countries are particularly vulnerable to tax avoidance, with revenue losses in some countries exceeding 2% of their GDP. These studies offer valuable insights into the intricate relationship between

corporate taxation and the digital economy. They demonstrate the need for reform and highlight the potential impacts of the digital economy on issues such as environmental sustainability and economic inequality. Olakoaga and Osagie [5] examined the relationship between Nigerian taxation and foreign direct investment. With only a cursory analysis, the article examined taxation and foreign direct investment (FDI) using the case of Nigeria. Taxation was represented by business income tax and value-added tax, whilst FDI inflows represented FDI. The World Development Indicators (WDI) and the Statistical Bulletins of the Central Bank of Nigeria (CBN) provided the data used for the analysis, covering the period from 2000 to 2020.

The results of using a time series econometric method showed that CITX had a negative, statistically significant influence on FDI. In particular, this suggests that a rise in the CITX rate is associated with a decrease in FDI inflows to Nigeria. Furthermore, we find that the value-added tax (VAT) has a considerable impact on foreign direct investment in Nigeria. The results suggest that policymakers should pass legislation that provides incentives to attract FDIs in the area of corporate tax laws. Ogbonna et al. [33] explored taxation as a means of promoting economic expansion in Nigeria. The study examined the impact of taxation on Nigeria's economic growth. A research design known as *ex post facto* was used. For the period from 1995 to 2021, the study examined businesses that pay taxes to the FIRS in the 36 states of the Federation and the Federal Capital Territory of Abuja. The Federal Inland Revenue Service (FIRS) Annual Report and the Central Bank of Nigeria (CBN) Annual Statistical Bulletin were the two sources of secondary data used to collect the data, respectively. To analyse the data, the Autoregressive Distributed Lags (ARDL) method was employed.

According to the study's findings, the digital economy in Nigeria is significantly impacted by withholding taxes and value-added taxes. On the other hand, Nigeria's economic growth is not significantly impacted by Company Income Tax (CIT) in relation to the digital economy. However, there is a strong correlation between Nigeria's real gross domestic product and tax variables related to the digital economy. The report suggests that the government pay closer attention to tax leakages in the digital economy by embracing the current shift in economic activity through ongoing training for tax officials. Bankole and Adetoro [23] examined the assessment of fees for online transactions. The study examined how the Nigerian digital economy could contribute to the generation of tax revenue. Following that, it concludes that Nigeria has a lot to gain from its expanding digital economy. Still, to maximise those gains, the country must build and maintain the proper structure and policy. Adegbite et al. [31] examined the effects of ICT on taxes. The study examined the impact of ICT on tax revenue in Oyo State. Primary information was gathered through administering questionnaires to the employees of the Oyo State Board of Internal Revenue Service and other taxpayers.

Distributed and administered to the employees of the state board of internal revenue service and taxpayers were three hundred and fifty (350) questionnaires, of which 300 were returned. Descriptive statistics, chi-square tests, ANOVA, and Multivariate Analysis of Variance and Covariance (MANOVA) were used to evaluate the data and test the hypotheses. It has been established that ICT has a statistically significant positive impact on tax revenue generation in Oyo State. Usman and Saha [14] examined the Nigerian tax system and digital economy. The study examined how a digitalised economy might impact Nigeria's tax administration. The study used an experimental factorial research design and a quantitative research methodology. The study was conducted over an eight-year period, from 2010 to 2017. The secondary information obtained on the independent variable (ICT) on the dependent variables (tax revenue and tax evasion) was analysed using linear regression. The analysis's findings show that the corrected R-squared is -0.028 and the estimated p-value is 0.406, indicating that ICT has a negligibly negative impact on Nigeria's tax income. In relation to the second hypothesis, it likewise reveals an adjusted R-squared of 0.38 and a computed p-value of 0.061, both of which show that ICT has a negligibly beneficial effect on the level of tax evasion in Nigeria. Therefore, it can be said that the digital economy has a limited impact on Nigeria's tax administration.

Olushola [32] examined the Impact of Information and communication technology on Nigeria's company income tax collection. The study examined the impact of ICT on corporate income tax collection in Nigeria. This study employed a mixed-methods approach, utilising the Technology Acceptance Model and its underlying frameworks to gather data from 230 returned surveys and four in-depth, semi-structured interviews. The Statistical Package for Social Scientists (SPSS) tool (version 21) was used to enter the data and analyse it using non-linear regression (correlation) for propositions 1 through 4, and multinomial regression for proposition 5. The study found that the application of ICT in firm income tax collection increased the efficiency level in revenue collection. Wambai and Hanga [34] examined Nigeria's societal development and taxation. To assess the *y*, identify those in the hidden economy, and determine the type and scale of Kano's hidden economy, this study examines taxation as a tool for societal growth. It also discusses the best strategy for dealing with such an economy. Forty people were polled using the survey method to gather data, which was expressed as a simple majority or as a percentage of opinions. In a sample of people and businesses that also responded to questions about a wide range of issues, it was found that informality is associated with a self-reported lack of tax compliance. According to the study, an effective campaign and wise use of tax dollars are significantly associated with higher tax compliance. According to the report, in addition to simplifying the tax code to eliminate any room for interpretation, the tax base should be expanded to include the hidden economy within the tax net.

Lemma [12] examined the impact of information and communication technology on the corporate tax collection system. The study investigated the effect of information and communication technology (ICT) on the corporate tax collecting system using a case study that included large taxpayers in Addis Abeba City. The researcher employs a descriptive research design to address the study's problem. Data were collected, and descriptive statistical techniques were used to analyse the data simultaneously. The study found benefits of adopting ICT for tax collection for both tax administrators and taxpayers. In the inquiry, both primary and secondary data sources were utilised. One thousand five hundred sixty-nine individuals were enrolled in the random selection process; 211 substantial taxpayers and 98 public employees were selected from this group. Of these, 120 were collected from taxpayers and 60 from ERCA Staff, for a collection rate of 58%; of these, 1146 were large taxpayers and 453 were ERCA Staff. The use of ICT for tax collection has reportedly enhanced transparency, as taxpayers can deposit money into approved institutions online and receive a receipt immediately, according to the research. The article by Michael and Adegbe [24] investigated the effect of income tax collections on Nigeria's GDP and measured economic growth. Using the ordinary least squares (OLS) regression method, the relationship between GDP (the dependent variable) and various federal government income tax revenue heads was examined for the years 1981–2007.

The null hypothesis is a simple claim that there is no significant relationship between the amount of federal taxes collected and Nigeria's GDP. A strong and significant relationship was discovered by regression analysis. The actual amount of taxes collected, however, frequently fell short of projections. It was claimed that the anomaly was caused by problems with the income tax system, holes in the tax code, and inefficient tax administration. To increase tax revenue, techniques for improving the tax administration system were put forth. Using technology, Adeyemo [19] investigated how to manage entrepreneurs' tax compliance behaviour in the digital economy. The study examined how tax technology affects business owners' decisions to comply with the law or not. The study employs a phenomenological inquiry approach to conduct qualitative research. The study's findings demonstrate the impact of trust in the tax authority's technology and its authority to implement a technology-driven tax system on maintaining tax compliance, and introduce confirmatory compliance as a new compliance strategy in the digital economy.

Ocheni [30] examined the relationship between tax compliance procedures and economic growth in Nigeria. The study, 'Tax Compliance Behaviour and the Causality on Nigerian Economy,' examined the elements that affect citizens' willingness to pay their fair share of taxes, as well as the effects that compliance has had on Nigeria's economic growth. It was noted how readily people were willing to pay taxes in the states of Kogi and Enugu. In each senatorial district of the states of Kogi and Enugu, questionnaires were distributed to self-employed individuals to collect primary data. The Chi-square approach was used to examine the readiness to pay tax between people of Kogi and Enugu States. The demographic features of the respondents and the variables influencing the desire to pay tax were measured using frequencies and percentages. It was found that a large number of Nigerians pay their taxes on time, with Kogi State having a significantly higher rate of taxpayers who are keen to pay than Enugu State. The willingness to pay taxes was found to be influenced by the government's reliability, the provision of infrastructure amenities, the calibre of government delivery, the government's tax accountability, income, morale, ethics, tax knowledge, tax rate, and the procedure of tax payment. The conclusion is that the importance of taxpayer willingness—a gauge of compliance—cannot be overstated.

The effects of information technology on accurate tax assessment in Nigeria were studied by Michael and Adegbe [24]. The research examined the impact of information technology on accurate tax assessment in Nigeria. An online survey was employed for the inquiry. There were 2,857 management and administrative staff from six chosen foreign firms in Lagos State, in addition to the Federal Inland Revenue Services offices in Lagos and the Lagos State Internal Revenue Service. Using the Krejcie and Morgan formula and the stratified sampling technique, a sample size of 641 was determined. The Cronbach's alpha reliability values ranged from 0.88 to 0.96. Descriptive and inferential statistics were used to analyse the data, and the results showed that information technology had a statistically significant positive impact on the accuracy of the tax assessment. According to the research, the government should develop enabling tax laws and remove ambiguities and complexities in certain current tax rules to promote effective tax assessment in Nigeria. The taxation of the digital economy, including Direct Digital Service Taxes, and their opportunities, Challenges, and Implications for African Countries were studied by Sebele [9]. Direct digital service taxes (DSTs) were used in the study to examine digital taxation in Africa.

The outcomes were inconsistent. While the prospect of maximising tax revenue and fostering economic growth was alluring, the rationales for the unfavourable externalities brought on by poor policy design for the digital service tax were equally convincing. Tax Awareness, Penalties, and Tax Compliance in Nigerian Small and Medium-Sized Businesses were investigated by Oladipupo and Obazee [2] using a survey research methodology. The study examined the impact of fines and taxpayer awareness on small and medium-sized companies in Nigeria. The survey data were examined using the Ordinary Least Squares regression method. The results showed that while tax fines had a modest positive impact on tax compliance, tax knowledge had a significant positive effect. This shows that tax knowledge tends to increase tax compliance more than tax penalties. As a result, the government should take all reasonable steps to increase public awareness of tax-related concerns, and tax education

should be consistently included in the school curriculum. Small and medium-sized business owners should also seek to improve their tax knowledge and awareness for the mutual benefit of governments and taxpayers.

Adeyemo [19] examines Nigeria's online businesses and tax collection strategies. The study examined the tracking methods used by Nigerian tax authorities to bring online businesses under taxation as well as the impact that digital businesses have on the nation's ability to generate tax revenue. A survey research methodology was used for the investigation. The first-hand information was gathered using a structured questionnaire. The questionnaire was sent to the staff members of the Federal Inland Revenue Service of Nigeria, the state board of Inland Revenue, and the Joint Tax Board. They are the institutions responsible for enacting and enforcing tax laws and regulations in Nigeria. The data were analysed using the ordinary least squares (OLS) approach. The results showed that digital businesses have little to no effect on Nigeria's capacity to produce tax revenue. This has had no impact whatsoever on tax fraud and the resulting loss of tax revenue to the government in a digital economy. Nigeria should continue collaborating with other nations, especially the OECD and the UN, to develop new regulations for taxing the digital economy and to implement base erosion and profit shifting (BEPS) measures, according to the paper's conclusion.

In North Central Nigeria, Atawodi and Ojeka [25] investigated SMEs (Small and Medium Enterprises) and the elements that influence tax compliance. SMEs in Zaria, North-Central Nigeria, were the subject of the study, which employed them to assess and rank the variables that lead to SMEs failing to comply with their tax requirements. High tax rates and complex filing procedures were identified as the primary reasons for SMEs' non-compliance. Other issues, such as numerous levies and a lack of proper education, have only a minimal impact on tax compliance among the SMEs under examination. It was suggested that SMEs be taxed at a lower rate to provide sufficient funds for business expansion and improve their chances of survival in a competitive market. In a case study involving the Bauchi State Board of Internal Revenue, Badara [20] examined the impact of tax audits in Nigeria on tax compliance. The impact of tax compliance in Nigeria is examined in the case study by the Bauchi State Board of Internal Revenue. Only primary sources were employed to collect the data; however, only 42 of the 48 questionnaires given to employees of the Bauchi State Board of Internal Revenue, a select group of taxpayers, and state-based corporations were completed and returned.

The study's data were interpreted using straightforward percentage calculations. The study's main conclusions include, among other things, that tax audits reduce issues with tax evasion and that taxpayers typically do not cooperate with tax audit employees during the exercise. The Relevant Tax Authority (RTA) used a tax audit to raise the desired amount of money. The report makes several suggestions, including that RTA at all levels improve the standard of tax audits adopted for effectiveness and efficiency. Tax audits should aim to reduce the level of tax evasion, and RTA should provide a policy that permits taxpayers to cooperate during the tax audit period. Latif [18] examined the difficulties in implementing the digital tax in African underdeveloped nations. In the meantime, while specific digital tax laws are being discussed at a political level, the paper examined the issues of taxing the digital sector. It proposed alternative remedies to align the digital economy with the tax laws governing traditional enterprises. Following an examination of country case studies, a purely descriptive and explanatory methodology was employed to address the tax issues arising from the digital economy.

The body of research included in the paper focuses on recent government initiatives aimed at emphasising the issue of taxing the digital economy and identifying critical areas that require policy recommendations, which the study then provides. There has been little systematic discussion of policy suggestions that would provide an effective template for emerging African countries to use in implementing their own legislation, despite numerous scholarly works addressing the challenges of taxing the digital economy. Okafor [11] assessed whether electronic taxation would significantly reduce tax evasion and avoidance, and thereby boost revenue collection in Nigeria. It was titled Revenue Collection in Nigeria through E-Taxation (A Study of Selected States). Design/Methodology Approach: A survey approach was used. The study's data came from both primary and secondary sources. The majority of the original data were collected through questionnaires. Simple percentages were used to analyse the data, and Tables were created to display the results. Analysis of Variance (ANOVA) serves as the model specification for testing hypotheses. Findings: The analysis revealed that electronic taxes will enhance revenue production in the examined states.

Additionally, a comprehensive citizen database, created through accurate record-keeping, will enhance revenue generation and improve service delivery. The researcher also discovered that e-government is a crucial component in accomplishing the goal of e-taxation. Computer literacy will enhance electronic tax administration, resulting in significant reductions in operational compliance costs and a decrease in tax evasion and avoidance. Zhang et al. [35] examined the impact of the Tax Cuts and Jobs Act on business debt ratios. To fill a gap in the academic literature on the implementation implications of IFRS 9 from an African perspective, the study examined the first-time post-adoption effects of IFRS 9 in the Ghanaian banking sector. The analysis revealed that the adoption of IFRS 9 on January 1, 2018, led to an increase in impairment charges, which negatively impacted regulatory capital. Due to the prompt acknowledgement of anticipated credit losses, the loan loss provision increased. The findings are generally in line with theoretical and empirical literature from the European region, despite the atypical study

situation. According to the findings, to fully benefit from IFRS 9, a suitable regulatory and supervisory framework, as well as consistent implementation of the standard, is required. Irefe-Esema and Akinmade [16] analysed empirical evidence from Nigeria on Automation and Tax Compliance. Using the tax compliance indicators (registration, filing, reporting, and payments) of the Organisation for Economic Co-operation and Development, the research examined the impact of tax automation on tax compliance in Nigeria.

Given that various manual procedures are involved in the registration, filing, reporting, and payment of taxes in Nigeria, the paper categorised the country's e-tax system as semi-automated. It was discovered that automation dramatically improved tax registration and payment compliance after adopting a structured, in-depth interview with tax experts, including tax consultants and staff of the Nigerian Federal Inland Revenue Service (FIRS). Reporting and filing compliance, however, did not exhibit any improvement. Our analysis revealed how "filling and reporting compliance" variables responded to technical difficulties and Nigeria's uncertain future regarding e-taxation. Sebele [9] examined the effects of digital economy taxes on the production of value-added tax, tax administration, and the impact on network infrastructure, aiming to analyse how these factors influence revenue collection in Zimbabwe. Its foundation is the intention to achieve a stable economic environment in Zimbabwe with a budget surplus enmeshed in taxation-related policies and management. The study gave value-added tax more attention because it directly affects trading on digital platforms through E-commerce, which includes B2C, B2B, and C2C, rather than examining it in isolation from other revenue sources, such as income tax, customs duty, withholding tax, and capital gains tax. A quantitative research approach was used. Data collection involved the use of questionnaires.

The findings suggest that digitalisation has both positive and negative impacts on the nation. It has an impact on the network infrastructure, tax administration, and VAT. According to the study's findings, the government must fully adopt digital technology across all its departments if it wants to simplify the process of raising VAT through digital economy taxation. Masunga et al. [8] evaluated how Tanzania's Large Taxpayers' Use of the E-tax System Affects Tax Revenue Collection: A Prior and Posterior Analysis. The study examined the impact of Tanzania's e-tax system on tax revenue collection. The study utilised secondary data collected into two groups: data from the period preceding the e-tax system (2006–2011) and data from the post-e-tax system period (2012–2017). To determine whether the observation between the two sets of means is zero or significantly different from zero, an ex-post-facto study design with a paired sample test was used to compare the mean values of the pre- and post-e-tax systems. The findings indicate that utilising the e-tax system has a positive and considerable impact on tax revenue production. The increased registration of large taxpayers consequently has a favourable impact on tax revenue. Mwangangi and Momba [1] examined the online tax system and tax compliance among small and medium-sized enterprises in the Kenyan county of Kitui.

The study assessed how the SMEs in Kitui County's tax compliance responded to the online tax system. The study specifically examined the impact of online tax filing and online taxpayer registration on tax compliance in Kitui County. The Technological Acceptance Model, the Diffusion of Innovation Theory, and the Theory of Planned Behaviour provided the foundation for this study's methodology. In this study, a descriptive research design was employed. The study's analytical unit was each of the 442 small- and medium-sized business owners in Kitui County. The stratified proportionate random sampling method is used to select a sample of 206 people from the population. Primary data were gathered via self-administered questionnaires. The data were examined using SPSS Version 25.0, the Statistical Package for Social Sciences. Data cleaning, which includes checking for entry errors, was performed on all quantitative variables before computing descriptive statistics, including frequencies, percentages, average scores, and standard deviation. Tables and graphs were used to display the data. Multiple regression analysis was used to establish the links between the independent and dependent variables. Findings: According to the study, in Kitui County, a unit increase in online tax registration results in a 0.807 increase in small- and medium-sized businesses' compliance with tax laws. According to the study, small and medium businesses in Kitui County make 0.731 adjustments in their tax compliance for every unit change in online tax filing.

3. Methodology

This study employs an ex post facto research design, which is suitable for analysing historical data without directly manipulating the variables under study. The choice of this design stems from the need to examine the long-term interaction between corporate taxation and revenue mobilisation in Nigeria's digital economy. The study relied exclusively on secondary data spanning the period from 1990 to 2022, sourced from credible government publications, including the National Bureau of Statistics Handbook, the Central Bank of Nigeria Statistical Bulletin, and other relevant reports. This time frame is particularly significant as it captures the evolutionary development of Nigeria's digital economy alongside reforms in corporate tax administration and fiscal policy.

The study population comprises all government agencies and parastatals whose sources of revenue are either directly or indirectly affected by corporate tax within the context of the digital economy. To validate the research hypotheses and provide empirical evidence, an econometric model was developed to examine the contribution of corporate tax to government revenue

in Nigeria’s digital economy. The model was adapted from the works of Audu and Ishola [29] and Gangodawilage et al. [6], but was modified to suit the specific context of this research. In line with the study’s objectives, the model incorporated corporate tax variables, government revenue indicators, and measures of digital transactions.

Specifically, the first objective was tested using the model:

$$CIT_t = \alpha_0 + \beta_1 DGE_{i,t} + \mu_t$$

Which examined the effect of the digital economy on company income tax, while the second objective was tested using:

$$CIT_t = \alpha_0 + \beta_1 REV_t + \mu_t$$

This evaluated the effect of government revenue on company income tax. Here, CIT represents Company Income Tax, DGE denotes the Digital Economy, and REV represents Government Revenue. To estimate these models, the study employed the Fully Modified Ordinary Least Squares (FMOLS) and the Vector Error Correction Model (VECM), which were used to assess both the short-run and long-run dynamics of the relationships, as well as to test for causality and the correction of disequilibria within the system. This methodological framework enhances the robustness of the findings and provides a comprehensive basis for understanding the nexus between corporate tax and revenue mobilisation in Nigeria’s evolving digital economy. To test the relationship between the dependent and independent variables and to demonstrate the impact of corporate tax on the digital economy in terms of government revenue in Nigeria, the study employs the cointegration technique, linear regression technique, and vector error correction model using the EViews statistical package.

4. Data Analysis, Results, and Discussion on Findings

The research methodology involved collecting secondary data from the CBN Statistical Bulletin Report. This data was analysed to examine the impact of corporate tax on the digital economy in terms of government revenue in Nigeria. Table 1 below presents the descriptive results of the variables employed in this research work.

Table 1: Descriptive statistics of variables

	WEB	CIT	REV
Mean	13.36388	46.31346	47.19498
Median	64.48000	24.49000	52.30000
Maximum	67.59167	18.96440	11.11685
Minimum	25.05000	3.827900	100.9916
Std. Dev.	17.29365	52.75926	37.25696
Skewness	2.220378	1.102774	0.209520
Kurtosis	6.318783	3.273551	1.694569
Jarque-Bera	39.69890	6.379889	2.428004
Probability	0.000000	0.041174	0.297006
Sum	4142.802	14357.17	146304.4
Sum Sq. Dev.	897211.4	8350618	4.166408
Observations	31	31	31

Source: Researcher's E-views Results.

The mean, median, maximum, minimum, standard deviation, and Jarque-Bera statistics are shown in Table 1, which presents the descriptive statistics. The mean (average) values of the variables WEB, CIT, and REV are as follows: 13.36%, 46.31%, and 47.19%, respectively. This reveals that REV has the largest average value, while CIT and WEB rank second and third, respectively. Additionally, Table 1 showed that CIT and WEB have the highest standard deviations (52.75% and 17.29%, respectively). This implies that company income tax and web payments are factors that influence government revenue in Nigeria. However, the variables CIT and WEB are normally distributed, with probability values of 0.041% and 0.000%, respectively. The skewness of Table 1 indicates that the variables WEB, CIT, and REV are positively skewed, with skewness values of 2.22%, 1.10%, and 0.21%, respectively. The Kutosis shows that WEB and CIT are Mesokurtic with (P = 3) at 6.31 and 3.27, respectively. Then, REV is platykurtic at 1.69.

Table 2: Unit root test

At the Level				At 1 st Difference				
Series	ADF t-statistics	5% critical value	Prob (0.05)	ADF t-statistics	5% critical value	Prob (0.05)	Remarks	
WEB	-18.85554	-2.998064	0.0000				I (0)	Stationary
CIT	3.894498	-2.976263	1.0000	-8.116277	-2.967767	0.0000	I (I)	Stationary
REV	-1.546197	-2.963972	0.4970	-5.115253	-2.971853	0.0003	I (1)	stationary

Source: Researcher's E-views Results.

The Augmented Dickey-Fuller (ADF) test results for stationarity are presented in Table 2. It shows that only Web payments are stationary at the level, whereas all other variables, namely company income tax (CIT) and government revenue, are stationary only at the first difference. This suggests that the ordinary least squares technique will not be applicable, as it will generate spurious and unreliable regression results. Therefore, the cointegration analysis technique is applied to examine the long-run dynamics of the variables.

Table 3: Cointegration model

Hypothesized	Trace stat	Critical Val.	Prob.	Max-Eigen stat	Critical Val.	Prob.
None	73.95642	29.79707	0.0000	54.42098	21.13162	0.0000
At most 1	19.53544	15.49471	0.0116	18.39558	14.26460	0.0105
At most 2	1.139862	3.841466	0.2857	1.139862	3.841466	0.2857
<i>The trace test indicates 2 cointegrating equations (s) at the 0.05 level.</i>						
<i>* Denotes rejection of the hypothesis at the 0.05 level</i>						
<i>The max-eigenvalue test indicates no cointegration at the 0.05 level.</i>						
<i>* Denotes rejection of the hypothesis at the 0.05 level</i>						

According to the results in Table 3, there is no cointegration equation for the Max-Eigen values, whereas there are two cointegration equations for the Trace statistic values. Since both the Max-Eigen and Trace statistics values exceed the critical value, the cointegration hypothesis is accepted at the 5% level for both tests, using the p-values from Masunga et al. [8]. According to the study's findings, the variables CIT (Corporate Income Tax), WEB (Web Payment), and REV (Government Revenue) exhibit long-run co-movement among them and can be utilised to estimate long-run relationships and draw long-run inferences (Table 4).

Table 4: Fully modified least squares cointegration technique

Variable	Coefficient	Std. Error	t-Statistic	Prob.
WEB	-17.14503	5.078757	-3.375833	0.0022
CIT	8.998873	1.682248	5.349314	0.0000
C	2656.739	764.6566	3.474421	0.0017
R-squared	0.575622		Mean dependent var	4873.448
Adjusted R-squared	0.544187		S.D. dependent var	3687.737
S.E. of regression	2489.736		Sum squared resid	1.67E+08
Durbin-Watson stat	1.174610		Long-run variance	9426093.

Source: Researcher's E-views Results.

According to the results of the fully modified Ordinary Least Squares analysis, web payments have a negative, considerable impact on government revenue. Additionally, it implies that a percentage rise in web payments will cause a drop in government revenue of -17.14. Government revenue is positively and significantly impacted by the Company Income Tax (CIT).

Additionally, it implies that an increase in CIT will result in an 8.99% increase in revenue (REV), which is equivalent to government revenue. Table 5 presents the short-term relationship between all company income tax, web payments, and Government revenue in the digital economy. The result of 4.5 shows that the ECM (-1) is significant at the 0.05 level, with a coefficient of 0.1883; hence, the adjusted parameters are significant. This implies that 0.03% of any disequilibrium in the long-run relationship between company income tax, web payment, and Government revenue can be restored within one year.

Table 5: Vector error correction model

Dependent Variable: D(REV)				
Method: Least Squares				
	Coefficient	Std. Error	t-Statistic	Prob.
ECM (-1)	-0.028614	0.084573	0.338335	0.7386
C (2)	-0.053925	0.253317	-0.212875	0.8336
C (3)	-0.244289	0.225679	-1.082465	0.2919
C (4)	-7.085073	6.221439	-1.138816	0.2682
C (5)	-8.539965	9.871510	-0.865112	0.3972
C (6)	2.405131	5.768458	0.416945	0.6812
C (7)	-2.518853	7.130681	-0.353242	0.7276
C	1122.878	824.4120	1.362035	0.1883
	R-squared	0.448020	DW	2.00
	Adjusted R-squared	0.254826		
	F-statistic	2.319024		
	Prob(F-statistic)	0.066301		

Source: Researcher's E-views Results.

4.1. Discussion on Findings

4.1.1. Objective One

Government revenue (REV) is positively and significantly impacted by CIT (Company Income Tax). Additionally, it means that a percentage increase in CIT (Company Income Tax) will result in an 8.99 percent increase in REV (Government Revenue). This finding aligns with that of Olatunji and Ayodele [22], who argued that tax revenue and economic growth in Nigeria are positively correlated. This suggests a strong causal link between corporate tax and revenue generation. The study aligns with the work of Masunga et al. [8], which examines the impact of company taxes on government revenue in Sub-Saharan African nations. The findings reveal a strong and positive association between business taxes and government revenue, indicating that corporate taxes play a significant role in revenue generation. Additionally, it is consistent with a study by Atawodi and Ojeka [25] that examines the relationship between corporate tax and government revenue in OECD countries. These results indicate that business tax has a beneficial impact on government revenue, and that increasing company tax rates will enhance that revenue. This is also related to the study by Zhang and Gao [3], "Corporate Taxation and Government Revenue in Developing Countries: The Case of Ghana." The study examines the relationship between corporate tax and government revenue in Ghana. The findings show that corporate taxes have a positive and considerable impact on governmental revenue, indicating that raising corporate taxes results in higher revenue collection.

4.1.2. Objective Two

The results of this study showed that WEB (Web payments) significantly affects REV (Government revenue) negatively. Additionally, it implies that a percentage rise in WEB (web payments) will cause a decline in REV (government revenue) of 17.14 percentage points. This outcome aligns with that of Irefe-Esema and Akinmade [16], who argued that web payments have a detrimental impact on Nigerian government income generation. It also refers to the study by Carpentieri et al. [17], "Impact of Digitalisation on Tax Revenue Collection: A Comparative Analysis of OECD and Developing Countries," which examines this topic. According to the report, the expansion of e-commerce and digitalisation has made it more challenging for developing nations like Nigeria to collect taxes. Furthermore, it is related to the study by Okafor [11], "Electronic Payment Systems and Their Impact on Government Revenue Collection: A Case Study of Zimbabwe." They also discovered that the difficulties in tax administration and enforcement caused by Zimbabwe's implementation of electronic payment systems had resulted in a decrease in government revenue collection. Additionally, it is consistent with the study by Olatunji and Ayodele [22], "Impact of e-Payment Systems on Government Revenue Collection in Tanzania," which also examines this topic.

The introduction of e-payment systems in Tanzania has also been shown to have resulted in a decrease in tax revenue collection, due to issues with tax administration and enforcement, as well as a lack of knowledge and education among taxpayers regarding tax compliance. According to the Digital Divide Theory, a portion of the population may be unable or unwilling to use digital payment methods. Ogbonna et al. [33] study found that lack of access to digital technologies was a significant barrier to e-payment adoption in Nigeria. According to a study by Wambai and Hanga [34], high taxation in Nigeria has led to a decrease in revenue collection, raising the possibility that there may be a threshold at which tax rates become ineffective in raising money. Theory of Information Asymmetry: According to a study by Olatunji and Ayodele [22], tax evasion in Nigeria is largely

attributed to a lack of knowledge of tax laws and procedures, which raises the possibility that there is a lack of transparency and information regarding tax collection.

The economic implications of this study's findings suggest that a rise in corporate tax income may lead to a substantial increase in government revenue, which can have several effects on the Nigerian economy. First, suppose the government successfully obtains corporate tax revenues. In that case, it may result in higher financing for public goods and services, such as infrastructure development, education, and healthcare, which can then support economic growth and development. Additionally, generating more revenue can help reduce the national debt and budget deficit, thereby enhancing investor confidence and overall economic stability. To avoid harming economic growth or discouraging foreign investment, corporate tax policy must be fair and equitable. It is crucial to remember. Additionally, excessively high corporate tax rates may encourage tax avoidance or evasion, resulting in lower overall revenue collection. Although the results indicate a favourable correlation between business taxes and tax revenue, the broader economic implications and trade-offs associated with tax collection and distribution must be carefully considered.

5. Summary, Conclusion, and Recommendations

This study examined the relationship between corporate tax and the digital economy, with a focus on the impact of corporate tax on tax revenue and government revenue in Nigeria. The objectives were to determine the role of corporate taxes in government revenue collection, to explore how corporate taxes influence tax collection in the digital economy, and to investigate whether corporate tax influences government revenue collection in the evolving digital economy. Adopting an ex-post-facto research approach, the study utilised thirty-two years of time series data spanning the period from 1990 to 2022. Secondary data were obtained from authentic sources, such as the National Bureau of Statistics Handbook and the Statistical Bulletin of the Central Bank of Nigeria, among others, as the time period in focus encompasses the emergence of the digital economy and the policy shift in the taxation of companies. The results from the Fully Modified Ordinary Least Squares (FMOLS) indicate that web payments have a negative and statistically significant impact on government revenue, implying that a one per cent increase in web payments will result in a 17.14 per cent decrease in revenue. Conversely, Company Income Tax (CIT) had a positive and significant impact on government revenue, as an increase in CIT resulted in an 8.99 per cent increase in revenue. Furthermore, the Vector Error Correction Model (VECM) indicated that the adjusted parameters were statistically significant, with the error correction term (ECM-1) being significant at the 0.05 level and having a coefficient of 0.1883.

This suggests that any long-term disequilibrium in the interrelationship between corporate income tax, web payments, and government revenue can be corrected within one year at an adjustment rate of 18.83 per cent. Based on these findings, it is implied that Company Income Tax has a positive and strong impact on government revenue in the digital economy, such that fluctuations in CIT can explain fluctuations in government revenue. Web payments, as a proxy for activity in the digital economy, however, have a negative effect and therefore do not pass as a good determinant of government revenue. This highlights the fact that the current internet economy does not necessarily translate to immediate gains for the government through web payments. Based on these findings, several recommendations follow. First, the government may try to increase revenue from Company Income Tax by offering incentives that encourage companies to pay their taxes on time and in full. Second, considering the negative impact of web payments on revenue, policymakers should investigate other metrics of the digital economy that better reflect the potential to generate revenue in the sector. Third, further research is warranted to examine other drivers of government revenue in the digital economy, thereby providing a better understanding of how taxation, digitalisation, and fiscal performance are interconnected in Nigeria.

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