

**E-Payment Rate and Tax Evasion Rate: Evidence from Listed Consumer Goods  
Manufacturing Firms in Nigeria**

**Oladejo M. O.**

**Department of Accounting**

**Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria**

**mooladejo@lautech.edu.ng**

**Ogundiya S. A**

**Department of Accounting**

**Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria**

**adeyem84@gmail.com**

**Corresponding author email: mooladejo@lautech.edu.ng**

**ABSTRACT**

In Nigeria, corporate taxation provides government with revenue from companies operating in various sectors of the economy, including the consumer goods manufacturing sector. However, the ability of government to generate sufficient tax revenue is constrained by tax evasion, tax avoidance, weak compliance and administrative challenges. The study therefore, examined effect of e-payment rate on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria. The study employed *ex-post facto* research design through secondary data, fourteen (14) out of twenty three (23) firms was purposively selected based on the year of incorporation, availability and accessibility to publish financial report of the listed consumer goods manufacturing firms. Generalized Least Squares (GLS) Analysis was used to examine the effect of e-payment rate on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria. GLS showed that all the explanatory variables; E-filing rate (−0.163563), E-payment rate (−0.115597), Digital tax invoicing (−0.001264), Technology infrastructure index (−0.001434), and Technology skill and infrastructure (−0.001262) have statistically significant negative effects on tax evasion rate. The study established that E-payment rate influence tax evasion rate of listed consumer goods manufacturing firms in Nigeria. It is recommended that, listed consumer goods manufacturing firms should increase the adoption and utilisation of electronic payment systems.

**Keyword:** Tax Evasion Rate, E-Filing Rate, E-Payment Rate, Digital Tax Invoice, Technology Infrastructure Index, Technology Skill and Infrastructure

## **Introduction**

Taxation remains a major source of government revenue and an important instrument for financing public expenditure, economic development and the provision of essential infrastructure and social services. In Nigeria, corporate taxation provides government with revenue from companies operating in various sectors of the economy, including the consumer goods manufacturing sector (Uguagu, Asomba and Kalu. 2023). However, the ability of government to generate sufficient tax revenue is constrained by tax evasion, tax avoidance, weak compliance and administrative challenges. Tax evasion involves deliberate actions by taxpayers to conceal taxable income, understate revenue, overstate allowable expenses or otherwise misrepresent their tax obligations in order to reduce the amount of tax payable. The persistence of tax evasion can reduce government revenue, undermine the fairness of the tax system and create an uneven competitive environment between tax-compliant and non-compliant firms. Consequently, improving the transparency and traceability of business transactions has become increasingly important for strengthening corporate tax compliance in Nigeria.

The rapid development of financial technology has significantly changed the way business transactions are conducted, recorded and monitored. Electronic payment systems have become an important component of modern financial transactions because they enable payments to be made through bank transfers, automated teller machines, point-of-sale terminals, mobile banking, internet banking and other digital platforms. The increasing adoption of these payment mechanisms has reduced reliance on cash transactions and generated electronic records of financial activities. According to the OECD (2024), digitalisation has enabled tax administrations across Africa to increasingly use online platforms for taxpayer registration, filing and payment, while digital systems have also improved the availability of information for tax administration and compliance monitoring. The increasing digitalisation of payment systems therefore has the potential to enhance the transparency of corporate transactions and improve the capacity of tax authorities to identify discrepancies in taxpayers' declarations.

E-payment rate refers to the extent or proportion of business transactions conducted through electronic payment channels relative to total payment transactions. A higher e-payment rate can increase the visibility of financial transactions because electronic payments generate

transaction records that can potentially be accessed, reconciled and verified by businesses, auditors and regulatory authorities. This creates a digital trail that may make it more difficult for firms to conceal sales or manipulate cash transactions. Digital payment systems can therefore contribute to tax compliance by facilitating the verification of reported revenue against actual financial transactions. Olumoh and Sanni (2022), for instance, examined digitalisation of tax administration in Nigeria and reported that e-tax payment formed an important component of the transformation of tax administration, particularly in addressing weaknesses associated with manual systems.

The relationship between electronic payment systems and tax evasion has also received empirical attention in Nigeria. Omeh (2023) examined electronic payment systems and tax evasion using Nigerian data from 2015 to 2021 and found that mobile banking payments, automated teller machine payments and point-of-sale payments had significant negative effects on tax evasion, while web-based transfer payments had a negative but statistically insignificant effect. The study concluded that increased utilisation of electronic payment systems could contribute to reducing tax evasion in Nigeria. Similarly, Uguagu, Asomba and Kalu (2023) reported that the adoption of e-taxation was associated with improved tax compliance and higher tax revenue compared with the period before the implementation of electronic tax systems. Their findings suggest that digitalisation can strengthen tax administration and help reduce opportunities for tax evasion and avoidance.

Further evidence is provided by Chinenye, Elom and Chukwu (2024), who investigated the impact of electronic payment systems on tax evasion in Nigeria over the period 2012–2023. Their findings showed that mobile banking payments, automated teller machine payments and web-based transfer payments had significant negative effects on tax evasion, although point-of-sale payments produced a different result. The study suggests that the effect of electronic payment systems on tax evasion may vary according to the specific payment channel and the manner in which it is used. This is important because the mere availability of electronic payment infrastructure may not automatically eliminate tax evasion. The effectiveness of electronic payments in promoting tax compliance may depend on transaction traceability, the quality of digital records, connectivity, taxpayer behaviour and the ability of tax authorities to access and analyse relevant transaction information.

The Nigerian tax environment has continued to experience increased digitalisation as government agencies seek to improve revenue mobilisation and reduce leakages. E-tax payment systems, electronic filing and other technology-driven tax administration mechanisms are increasingly being employed to make tax processes more efficient and transparent. Nwabachili, Nwankwo and Ugwu (2024) noted the growing importance of electronic tax payment systems in Nigeria and examined their legal and administrative implications in comparison with Kenya and Tanzania. More recently, evidence from Nigeria covering quarterly data from 2009 to 2023 indicates that digital payment systems have differing effects on tax revenue collection, with web-based payments and point-of-sale payments contributing positively to tax revenue collection in the long run (2025). This suggests that the effectiveness of digital payment systems may depend on the particular payment technology and the broader institutional environment in which it operates. Therefore, this present study examined the effect of e-payment rate on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria

### **Statement of the Problem**

The consumer goods manufacturing sector provides an important setting for examining the effect of e-payment rate on tax evasion. Listed consumer goods manufacturing firms engage in extensive transactions involving suppliers, distributors, retailers, customers, financial institutions and other stakeholders. These transactions may involve substantial amounts of revenue and expenditure, creating significant accounting and tax reporting obligations. As these firms increasingly adopt electronic payment channels, a larger proportion of their commercial activities may become digitally recorded and traceable. This can potentially reduce opportunities to conceal sales, understate revenue or manipulate transaction records for the purpose of reducing tax liabilities. At the same time, large and complex firms may have sophisticated financial systems that enable them to use different payment channels and accounting practices, making the relationship between e-payment and tax evasion an important empirical question.

Despite the growing adoption of electronic payments and increasing attention to digital tax administration, there remains a need for firm-level evidence on whether the rate of electronic payments is associated with tax evasion among listed consumer goods manufacturing firms in Nigeria. Existing Nigerian studies have largely examined electronic payment systems at the

aggregate national or tax-administration level, rather than specifically examining the relationship between the rate of e-payment usage and tax evasion among listed manufacturing firms. For example, existing studies have focused on national time-series data, state tax authorities or general taxpayer compliance (Olumoh & Sanni, 2022; Omeh, 2023; Uguagu et al., 2023; Chinenye et al., 2024). This creates a research gap concerning whether differences in firms' levels of electronic payment usage are associated with differences in their tax evasion rates.

Therefore, this study examines the effect of e-payment rate on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria. The study is premised on the argument that increased use of electronic payment channels can improve transaction traceability, strengthen financial transparency and make it more difficult for firms to conceal taxable transactions. However, the actual effect requires empirical verification because electronic payment systems may produce different outcomes depending on the nature of the payment channel, quality of digital infrastructure, internal financial controls and effectiveness of tax administration. The findings of the study are expected to contribute to the literature on digitalisation and corporate tax compliance and provide useful evidence to tax authorities, policymakers, corporate managers, auditors and other stakeholders seeking to strengthen tax compliance and reduce tax evasion among listed companies in Nigeria.

## **Literature review**

### **Review of Previous Studies**

Owoeye (2024) the study investigated the impact of e-taxation on tax evasion in Nigeria and also the extent to which e-taxation has contributed to the reduction of tax avoidance in Nigeria. The study's analysis used secondary quantitative data from the Federal Inland Revenue Services (FIRS) and the National Bureau of Statistics (NBS). The result showed that e-taxation had a considerable beneficial impact on tax evasion in Nigeria, It also indicated that e-taxation has greatly helped in curbing the issue of tax evasion in Nigeria and recommended that FIRS should develop an electronic tax payment system mobile App that will raise awareness and simplify the country's e-tax system. The study concluded that the e-taxation system in Nigeria achieves higher tax compliance than the manual approach.

Mvunabandi *et al* (2023) the study investigated the link between tax evasion and avoidance with the application of technologies in South Africa using a quantitative longitudinal trends analysis, to access the link between tax evasion and avoidance from 1994 to 2021. The data gathered provided us with basis of longitudinal statistical analysis of the extent of tax evasion and or tax avoidance affected the economic growth in the years 1994-2021. Ordinary Least Squares Regression (OLS) regression analysis was employed to evaluate whether the link between Gross Domestic Product (GDP) and tax evaded and avoided is strong or weak. The result revealed that increasing tax rates was said to have triggered a positive trend towards economic growth or GDP (actual revenue collected is more than expected taxation revenue annually to cover tax evaded and avoided).

Osaloni *et al* (2023) the study examined the effect of information technology and tax evasion practices in Nigeria. The study adopted a survey research design and the study population was 1007 staff of FIRS and SIRS revenue services as at 2022. The sample size of the study of 289 tax officers was derived using the Taro Yamane formula. Data were collected from primary sources using a well-structured questionnaire and were analyzed through descriptive statistics and OLS regression while the result showed revealed that IT has a positive and significant effect on tax evasion practice. The study, therefore concluded that tax evasion reduces at the instance of tax automation. It was therefore recommended that government should improve more on IT to achieve an increase in tax payment and combating tax evasion.

Nimer *et al.* (2022) the study examined whether e-government services reduce the prevalence of tax evasion in the UK. The study covered from 2006 to 2017. Time fixed-effects panel data analysis was adopted to analyze data, in which the results confirmed the significance of e-government services in reducing tax evasion.

Alm (2021) examined how changing technology, transformation of information into digital formats for use by computers seemed to affect tax evasion in the years ahead in Tulane. Secondary data covering the period of 2015-2020 from the annual report of the selected banks were used for the study. The result found that changing technology will make tax evasion difficult for taxpayers, and increase economic inequality. The findings correlate with the findings of Jordan researchers,

Thuneibat *et al.* (2022). The study engaged 200 auditors at Jordanian listed companies through a questionnaire to investigate the link between information technology and the reduction of tax evasion with mediator variable call innovation. Findings revealed that information technology (both in terms of system quality and user quality) will help to prevent tax evasion.

Dibie and Dibie (2020) the study examined the factors that determines tax policy compliance and the impediments to effective tax administration in Nigeria. The study “objectives were to determine whether a relationship between knowledge of tax laws and compliance exists, and if a relationship exists between corruption and tax compliance. The primary data used were derived from interviews and questionnaires. The findings of this study revealed that there is a strong positive correlation between corruption and tax evasion. Also, that inadequate use of information technology in tax administration, lack of government incentives as well as poor working condition have negative correlation with tax collection.

Olaoye and Atilola (2018) the study examined the effect of e-tax payments on revenue generation in Nigeria. The study covered the period from the first quarter of 2012 to the second quarter of 2018. The first and second quarters of 2015 are the end and beginning of the pre-and post-tax period. Paired analysis, descriptive statistics of mean, standard deviation, and paired sample t-test were utilized for the analyses. Findings showed that e-tax payment has a positive, insignificant effect on value added tax in Nigeria. Also, a positive insignificant difference exists between pre- and post-company income tax revenue in Nigeria.

Udegbonam and Nwankwo (2023) the study examined the effects of technological environment on service delivery within the Anambra Internal Revenue Service. The study focused on investigating the relationship between E-payment of tax and taxpayers’ commitment to pay tax to AIRS, as well as analyzing the effect of the Internet of Things (IoT) on service quality in AIRS. The findings from the study revealed significant relationships between E-payment of tax and taxpayers’ commitment to pay tax to AIRS, as well as a significant effect of the Internet of Things on service quality in AIRS.

Omeh (2023) the study investigated the impact of electronic payment system on tax evasion in Nigeria. The study adopted Ex-post facto research design which enabled secondary data that covered the period of 7years (2015-2021) to be collected from the reports and accounts

of Federal Inland Revenue Service, Central Bank of Nigeria and National Bureau of Statistics. The results revealed that MBP, ATMP and POSP had negative and significant impact on tax evasion in Nigeria and concluded that electronic payment systems have significantly influenced the reduction of tax evasion in Nigeria. The study therefore recommended that government should address the challenges of unreliable power supply and poor internet network to reduce the motives that could discourage taxpayers from using the electronic payment system.

Adegbie and Akinyemi (2020) the study examined the effect of electronic payment system on revenue generation in Lagos State. The specific objectives of the study were to determine the effect of electronic payment system on personal income tax, on rates collected and on penalties collected in Lagos State. The study made use of primary data which were sourced with the aid of questionnaire administered. Data was analyzed with the use of descriptive statistics. The result revealed that electronic payment system has positive and significant on personal income tax, rates and penalty collected in Lagos State.

Mohammed (2020) the study investigated the role of electronic payment on economic growth in Nigeria. Specifically, the study sought to ascertain the long run, short run and to evaluate casual relationship between electronic payment system and Nigeria's economic growth. Time series data obtained from the central Bank of Nigeria for the values of point of sales, automated teller machine, mobile banking, internet (web) transactions and real gross domestic product for the period 2010-2018. Multiple regression model, Johansen co-integration test, Granger causality test and vector Error correction model. The results showed automated teller machine and web transactions had positive and no significant effect on economic growth in Nigeria, and the regression result also indicated that point of sales transactions had negative and no significant effect on the growth of the Nigeria's economy.

Oyelami *et al* (2020) the study investigated the determinants of electronic payment adoption and the role of electronic payment on consumers' purchasing decisions as well as its effect on consumers' spending growth in Nigeria. The study made use of primary data obtained with the aid of structured questionnaire, data were analysed using Pearson correlation and Hierarchical regression. Results revealed that factors such as education attainment, financial inclusion, income level, availability of internet services and financial structures such as ATM and POS Machines are critical determinants to electronic payment adoption in Nigeria. The

result also showed that electronic payment system increases consumers' spending growth in Nigeria.

Strango (2021) the study investigated the impact of digitalization of public service on tax evasion using the European Union 27 (EU-27) member states as a case study over the period (2015-2019). Panel data were collected from the World Bank covering the period of the study. The data was analyzed using panel model approach by Generalized Method of Moments (GMM) system. The result revealed that digitalization of public services had non-linear U-shaped relationship with tax evasion, which implies that the acceleration of digitalization in public services reduces the level of tax evasion up to a certain point.

Usman and Okoroigwe (2025) the study investigated the impact of Tax e-Filing Systems and e-Payment Platforms on Revenue Generation in Niger State, Nigeria. Quantitative cross-sectional survey research design was adopted through structured questionnaire to staff of Niger State Internal Revenue Service (NSIRS). Descriptive and inferential statistics was used to analysed the data collected. The result revealed that despite its potential benefits, electronic filing does not significantly contribute to revenue generation, and concludes that increasing adoption through public education, technical improvements, and incentives for digital filing will be of help, also electronic payment is critical for tax revenue generation and shows that ensuring a secure and efficient e-payment system will encourage taxpayer compliance. The paper recommended that NSIRS should provide adequate technical support to assist taxpayers in navigating the e-filing process and also facilitate access to electronic payment platforms.

Omubo (2023) the study investigated the effect of electronic payment instruments and inflation rate in Nigeria. Time series data were sourced from Central Bank of Nigeria Statistical Bulletin from 2012 to 2021. The study result revealed that there is variation in inflation rate in Nigeria and concluded that automated teller machine and point of sales has positive and significant effect on inflation rate in Nigeria, web payment and mobile payment has positive but no significant effect on inflation rate in Nigeria. Nigeria inter-bank payment and cheque payment has positive and significant effect on inflation rate in Nigeria and the study recommended that, the regulatory authorities should ensure that the application of electronic payment instruments be regulated to achieve price stability and low inflation.

## **Methodology**

The study was carried out on selected consumer goods manufacturing firms in Nigeria with a special focus on fourteen (14) consumer goods manufacturing firms in Nigeria using purposive sampling technique for the selection. The population of the study constituted twenty three (23) consumer goods manufacturing firms in Nigeria registered and listed on the floor of the Nigerian Exchange Group (NXG) as specified on its official website as at May, 2025. All secondary data used were extracted from audited annual financial reports of the selected listed consumer goods manufacturing firms in Nigerian Exchange Group for the period 2016-2025. Analytical techniques used in the study consist of both descriptive and inferential statistics. Generalize Least Square (GLS) regression was used to determine the effect of e-payment rate on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria

## **Model specifications**

Model was adopted from the work of Ogunsola (2023) and modified to analyse the extent at which E-Payment rate influences tax evasion rate. The model according to Hassam (2019) is stated below:

$$TER = \beta_0 + \beta_1 EFR_{it} + \beta_2 EPR_{it} + \beta_3 DTI_{it} + \beta_4 TII_{it} + \beta_5 TSI_{it} + U_{it} \dots\dots\dots \text{Eq 1}$$

Where TER = Tax Evasion Rate as the dependent variables while the independent variables are; EFR = E-filling Rate, EPR = E-Payment Rate, DTI = Digital Tax Invoice, TII = Technology Infrastructure Index, TSI = Technology Skill and Infrastructure.

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$$TER = \beta_0 + \beta_1 EFR_{it} + \beta_2 EPR_{it} + \beta_3 DTI_{it} + \beta_4 TII_{it} + \beta_5 TSI_{it} + U_{it} \dots\dots\dots \text{Eq 2}$$

Where

TER = Tax Evasion Rate

EFR – E-Filling Rate

EPR = E-Payment Rate

DTI – Digital Tax Invoice

TII – Technology Infrastructure Index

TSI – Technology Skill and Infrastructure

$\alpha$ = Constant (Coefficient),

$\beta_1, \beta_n$ = parameters to be estimated

e= is the error term.

## **Results and Discussion**

### **Generalize Least Square (GLS) regression analysis on the extent at which E-payment rate influences tax evasion rate of listed consumer goods manufacturing firms in Nigeria**

The Generalized Least Squares (GLS) regression results in Table 1 examine the extent to which e-payment rate and other digital tax administration variables influence tax evasion rate among listed consumer goods manufacturing firms in Nigeria. The constant term is 0.476428, with a t-statistic of 81.35870 and a probability value of 0.0000, indicating strong statistical significance. This suggests that when all explanatory variables are held constant, the baseline level of tax evasion rate is approximately 0.4764, serving as the intercept of the model. The coefficient of e-filing rate (EFR) is  $-0.163563$ , with a standard error of 0.026829, a t-statistic of  $-6.096591$ , and a probability value of 0.0000, indicating a negative and statistically significant relationship. This implies that a unit increase in e-filing rate is associated with a decrease of approximately 0.1636 units in tax evasion rate. This shows that improved electronic filing significantly reduces tax evasion.

The coefficient of e-payment rate (EPR) is  $-0.115597$ , with a standard error of 0.028762, a t-statistic of  $-4.019117$ , and a probability value of 0.0001, indicating a statistically significant negative relationship. This suggests that a unit increase in e-payment rate leads to a reduction of approximately 0.1156 units in tax evasion rate. This highlights the importance of electronic payment systems in curbing tax evasion. The coefficient of digital tax invoicing (DTI) is  $-0.001264$ , with a standard error of 0.000298, a t-statistic of  $-4.247800$ , and a probability value of 0.0000, indicating a statistically significant negative relationship. This implies that increased use of digital tax invoicing reduces tax evasion, likely by improving transaction documentation and transparency.

The coefficient of technology infrastructure (TII) is  $-0.001434$ , with a standard error of 0.000302, a t-statistic of  $-4.744669$ , and a probability value of 0.0000, showing a statistically significant negative relationship. This suggests that improvements in technological infrastructure contribute to reducing tax evasion by supporting efficient digital tax systems. The coefficient of technology skill and infrastructure (TSI) is  $-0.001262$ , with a standard error of 0.000293, a t-statistic of  $-4.300743$ , and a probability value of 0.0000, indicating a statistically significant negative relationship. This implies that enhanced technological skills

and supporting infrastructure reduce tax evasion by improving the effective use of digital tax tools. The R-squared value is 0.938004, while the adjusted R-squared is 0.933728, indicating that the model explains a very high proportion of the variation in tax evasion rate. This reflects a strong goodness-of-fit.

The F-statistic of 219.3863 with a probability value of 0.000000 indicates that the overall model is statistically significant, meaning that the explanatory variables jointly have a significant effect on tax evasion rate. The Durbin-Watson statistic of 2.079951 suggests that there is no serious autocorrelation problem in the model. The results show that all the explanatory variables—e-filing (−0.163563), e-payment (−0.115597), digital tax invoicing (−0.001264), technology infrastructure (−0.001434), and technology skill and infrastructure (−0.001262)—have statistically significant negative effects on tax evasion rate. This indicates that improvements in digital tax administration significantly reduce tax evasion among the sampled firms.

Based on the GLS regression result, the null hypothesis ( $H_{04}$ ), which states that e-payment rate does not influence tax evasion rate of listed consumer goods manufacturing firms in Nigeria, is rejected because the probability value associated with EPR is less than 0.05. The study therefore concludes that e-payment rate significantly influences tax evasion rate by reducing the level of tax evasion among listed consumer goods manufacturing firms in Nigeria.

**Table 1: Generalize Least Square (GLS) regression analysis on the extent at which E-payment rate influences tax evasion rate of listed consumer goods manufacturing firms in Nigeria**

| Variable           | Coefficient | Std. Error         | t-Statistic | Prob.  |
|--------------------|-------------|--------------------|-------------|--------|
| C                  | 0.476428    | 0.005856           | 81.35870    | 0.0000 |
| EFR                | -0.163563   | 0.026829           | -6.096591   | 0.0000 |
| EPR                | -0.115597   | 0.028762           | -4.019117   | 0.0001 |
| DTI                | -0.001264   | 0.000298           | -4.247800   | 0.0000 |
| TII                | -0.001434   | 0.000302           | -4.744669   | 0.0000 |
| TSI                | -0.001262   | 0.000293           | -4.300743   | 0.0000 |
| R-squared          | 0.938004    | Mean dependent var | 0.193601    |        |
| Adjusted R-squared | 0.933728    | S.D. dependent var | 0.062230    |        |
| S.E. of regression | 0.011357    | Sum squared resid  | 0.033667    |        |
| F-statistic        | 219.3863    | Durbin-Watson stat | 2.079951    |        |
| Prob(F-statistic)  | 0.000000    |                    |             |        |

*Source: Researcher's Computation, 2026*

### **Discussion of Findings**

The GLS regression results indicate that e-payment rate (EPR) has a negative and statistically significant effect on tax evasion rate, with a coefficient of  $-0.115597$ . This implies that increased adoption of electronic payment systems significantly reduces tax evasion among listed consumer goods manufacturing firms. The finding suggests that digital payment platforms enhance transparency, improve traceability of transactions, and limit opportunities for underreporting and concealment of taxable income. This result is consistent with Keen and Slemrod (2021), who argue that electronic payment systems reduce tax evasion by strengthening monitoring mechanisms and minimizing cash-based transactions that are difficult to track.

The result also shows that e-filing rate (EFR) has a negative and statistically significant impact on tax evasion rate, with a coefficient of  $-0.163563$ , indicating a strong influence. This suggests that electronic filing systems reduce tax evasion by simplifying the reporting process, improving accuracy, and ensuring timely submission of tax returns. This finding supports OECD (2022), which emphasizes that e-filing enhances compliance by reducing errors and increasing the efficiency of tax administration processes. Similarly, Awasthi and Engelschalk (2021) note that digital filing systems reduce compliance costs and discourage evasion by making tax obligations easier to fulfill. Digital tax invoicing (DTI) is also found to have a negative and statistically significant relationship with tax evasion rate, with a coefficient of  $-0.001264$ . This indicates that increased use of digital invoicing contributes to reducing tax evasion by ensuring that transactions are properly recorded and easily verifiable. This finding aligns with World Bank (2021), which highlights that electronic invoicing systems create audit trails that enhance transparency and reduce the likelihood of income concealment. In addition, Bird and Zolt (2020) explain that digital invoicing strengthens tax enforcement by improving access to reliable transaction data.

The coefficient of technology infrastructure (TII), which is  $-0.001434$ , is also negative and statistically significant, suggesting that improvements in IT infrastructure contribute to reducing tax evasion. This implies that robust technological systems support effective implementation of digital tax tools and facilitate data processing, storage, and exchange. This

result is consistent with Alm and Duncan (2020), who argue that strong technological infrastructure enhances the efficiency of tax administration and supports compliance enforcement mechanisms.

Similarly, technology skill and infrastructure (TSI) shows a negative and statistically significant relationship with tax evasion rate, with a coefficient of  $-0.001262$ . This suggests that the availability of technical skills and supporting infrastructure enhances the effective use of digital tax systems, thereby reducing tax evasion. This finding is supported by Gideon et al. (2023), who emphasize that human capacity and technological competence are critical for maximizing the benefits of digital tax administration systems.

The findings demonstrate that digital tax administration tools significantly reduce tax evasion among listed firms, with e-filing and e-payment showing particularly strong effects. The results highlight the importance of integrating digital technologies into tax systems to improve transparency, enhance monitoring, and reduce opportunities for evasion. This is consistent with the broader literature, including OECD (2022), Keen and Slemrod (2021), Awasthi and Engelschalk (2021), World Bank (2021), Bird and Zolt (2020), Alm and Duncan (2020), and Gideon *et al.* (2023), which collectively emphasize that the adoption of digital tax systems plays a critical role in curbing tax evasion and improving overall tax compliance.

## **Conclusion and Recommendations**

### **Conclusion**

Based on the summary of findings, the study concludes that the model specified adequately captured the variables examined and demonstrated a good overall fit. Furthermore, the study established that e-payment rate has a significant influence on the tax evasion rate of listed consumer goods manufacturing firms in Nigeria. This finding suggests that the extent to which firms utilise electronic payment channels has implications for the level of tax evasion. Increased adoption of e-payment systems can enhance the traceability and transparency of business transactions, thereby providing useful electronic records that may support accurate reporting of taxable income and reduce opportunities for concealing transactions. The study therefore concludes that strengthening the adoption and effective utilisation of electronic payment systems could contribute to improving tax transparency and reducing tax evasion among listed consumer goods manufacturing firms in Nigeria.

## **Recommendations**

Based on the findings and conclusion of the study, the following recommendations are made:

Listed consumer goods manufacturing firms should increase the adoption and utilisation of electronic payment systems

Management of listed consumer goods manufacturing firms should strengthen internal controls over electronic transactions

Tax authorities should intensify the use of data analytics and digital monitoring mechanisms

Firms should provide regular training for accounting and finance personnel on electronic payment systems and tax compliance

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