

An Empirical Investigation of Factors Influencing Tax Awareness Among E-Commerce SMEs in Nigeria.

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ABSTRACT

The rapid growth of e-commerce has introduced new challenges in tax compliance, particularly among small and medium enterprises (SMEs). This study investigates the key factors influencing tax awareness among e-commerce SMEs in Nigeria. Given the online nature of these businesses, tax evasion has become a prevalent issue, with many owners assuming that their business activities may go undetected by tax authorities. The main objective of this study is to examine how tax knowledge, taxpayer attitudes, and tax penalties impact tax awareness among e-commerce business owners.

A sample of 1000 e-commerce SME owners was surveyed, and the data were analyzed. The paper argued that there is a relationship between taxpayer attitudes and tax penalties with tax awareness. Furthermore, the research argued that tax knowledge does have influence on tax awareness. This study contributes to the understanding of the determinants of tax awareness in the digital business environment and provides valuable insights for policymakers and tax authorities in addressing tax evasion challenges. The findings can also assist e-commerce professionals in enhancing compliance and fulfilling their tax obligations effectively.

Keywords: E-Commerce, Nigeria Small Medium Enterprises, Tax Awareness, Tax Knowledge, Taxpayers Attitude

Introduction

Small and medium-sized enterprises (SMEs) are often regarded as the backbone of Nigeria's economy, contributing significantly to employment, innovation, and overall economic growth. Small and medium-sized enterprises (SMEs) are estimated to account for around 40% of Nigeria's GDP and 70% of industrial employment. The Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) assists SMEs in overcoming problems such as insufficient infrastructure and limited access to financial services. SMEDAN supports SMEs via activities like as capacity building, entrepreneurial training, and lobbying for policies that benefit them. In recent years, there has been a considerable push for SMEs to adopt digital technologies.

Many SMEs are moving digital to reach a larger market, and financial technologies have significantly influenced how they function. According to an ICT Africa research published in 2023, SME enterprises that use smartphones and computers have a 2.8% higher productivity rate and six times greater revenues.

The development of e-commerce provides a tremendous potential for SMEs to improve their market reach. These organisations may save operating expenses, reach a larger audience, and optimise business operations by embracing digital platforms. However, the shift to e-commerce presents problems, notably the ongoing need for technological and operational changes. As Ahmad et al. (2015) pointed out, many SMEs in developing countries face significant financial challenges to purchasing the essential e-commerce infrastructure. Furthermore, while e-commerce might stimulate economic growth, it poses questions regarding tax compliance. Businesses must comply with tax rules because they rely on tax revenues to finance government activities.

According to Atawodi et al. (2012), considerable revenue losses owing to tax evasion might impede national growth, with the government expecting to lose billions of dollars in potential tax income from unreported e-commerce transactions (Sun et al., 2012). The phenomenal rise of the e-commerce sector has prompted heightened attention from tax authorities, who are now looking into methods to tax SMEs involved in digital transactions. However, many e-commerce businesses claimed that their online activities make it easier for them to cheat taxes, as tax authorities are unable to precisely measure their income. As a result, it is critical for the government to adjust its tax systems to keep up with technology advances and economic developments. Furthermore, taxpayers must be fully educated about their tax duties and penalties to avoid instances of double taxation or noncompliance (OECD, 2003). Finally, resolving the gaps in tax understanding and compliance among e-commerce SMEs is critical to creating a sustainable and fair economic climate in Nigeria.

While Nigerian tax authorities have implemented several steps to make tax compliance easier for e-commerce enterprises, there is still a substantial gap in tax understanding among SMEs. According to studies, many SMEs either lack awareness of the tax system or do not completely understand their duties under the GST or SST regimes, which has a direct influence on their compliance behaviour (Owoeye, 2024, Hamid et al., 2022 and Sormin, 2021). This disparity is particularly pronounced among e-commerce SMEs, who frequently operate in a less regulated and more volatile environment than traditional firms. Tax knowledge is critical for ensuring that SMEs comply with their tax requirements. According to research, SMEs' compliance rates are lower due to a lack of tax education and advice, as well as the perceived complexity of tax regulations (Suhono et al., 2022). Furthermore, many SMEs fail to comply due to a lack of awareness of relevant tax advantages or a clear grasp of internet taxation regulations, resulting in penalties, audits, and reputational harm (Owoeye, 2024).

The goal of this research is to look at the important elements that impact tax knowledge among e-commerce SMEs in Nigeria. Identifying these indicators can help policymakers and tax authorities adjust education and outreach initiatives to increase tax literacy and compliance rates. By addressing the existing information gap, this study hopes to help to the development of a more transparent and equitable tax structure, which is critical for the long-term success of Nigeria's e-commerce sector.

To facilitate understanding, this paper is divided into many major sections. Section 2 examines the literature on tax awareness, e-commerce, small and medium-sized enterprises, and tax compliance before proposing study hypotheses. Section 3 discusses the study's research methods. Section 4 provides and examines the findings, and Section 5 summarises the key discoveries and their implications for future study. This organisation strives to give a thorough knowledge of the study setting, methodologies, findings, and conclusions.

Literature Review

Tax Awareness

Tax awareness includes a comprehension of tax duties as well as the legal structure that governs taxes. It is crucial for guaranteeing tax compliance since improved awareness correlates with a higher possibility of meeting tax obligations (Hamid et al., 2022; Sormin, 2021). Hashim et al. (2020) suggested that many small and medium-sized firms (SMEs) lacked appropriate awareness of their tax duties, which might lead to noncompliance or tax evasion. For example, a research by Hamid et al. (2022) found that e-commerce SMEs had considerable gaps in comprehending tax legislation, emphasising the need for focused education and outreach initiatives by tax authorities.

Across the globe, similar tendencies exist. Studies in Indonesia and Kenya have also found that taxpayer education programmes improve tax awareness and compliance rates among SMEs (Suhono et al., 2022, Owoeye, 2024). These findings highlight the need of raising tax knowledge as a fundamental component of enhancing compliance, particularly in the fast-changing digital economy. In Nigeria, Atawodi and Adebayo (2012) found that limited tax knowledge among SMEs correlates to low compliance rates, implying that improving tax education might increase compliance levels.

E-Commerce and SMEs

The rise of e-commerce has fundamentally altered the operating landscape for SMEs, creating new development options and market access. However, this move presents new issues in terms of taxation. E-commerce enables SMEs to reach a worldwide client base, increasing sales opportunities and operational efficiencies (Ahmad et al., 2015 and MDEC, 2021). Nonetheless, the digital character of transactions hampers tax compliance due to ambiguity about tax responsibilities linked with online sales (Sun et al., 2012). Although the government has adopted mechanisms to tax e-commerce transactions, many SMEs are uninformed of the regulations, resulting in inadvertent noncompliance (Hamid et al., 2022).

The Nigerian Central Bank argues that the fast rise of e-commerce requires a stronger regulatory framework to enable clear communication of tax duties to SMEs doing digital transactions. Some articles demonstrated variations in tax compliance among countries, which are caused by different e-commerce rules and enforcement procedures. Atawodi and Adebayo (2012) contended that enterprises operating in the digital domain frequently exploit regulatory weaknesses, resulting in large tax revenue losses for governments. As a result, tax authorities throughout the world must change their policies to account for the intricacies of e-commerce and educate SMEs about their duties in this new economic landscape (Owoeye, 2024, Suhono et al., 2022; Mwangi and Jagongo, 2018).

The fast rise of e-commerce has raised worries about potential tax cheating. Practitioners are concerned that tax authorities may fail to discover business revenue created through online transactions, owing to the unique character of internet-based e-commerce in comparison to traditional company models (Coupey, 2001). Li and Sarte (2004) emphasised that not taxing or

giving preferential treatment to this industry might have a negative impact on tax revenue collection. Taxes are essential for national growth, fulfilling reasons other than income production. According to the tax neutrality concept, a tax system should remain neutral, influencing corporate decisions based on economics rather than tax concerns.

Despite these challenges, Poorangi et al., (2013) argued that SMEs are increasingly adopting e-commerce to gain competitive advantages in a globalized economy. The Federal Inland Revenue Service (FIRS) emphasized that there are significant revenue losses due to non-compliance among e-commerce businesses in Nigeria. This was confirmed in Tallaha et al (2014). These tax authorities are looking into ways to tax people and small and medium-sized firms involved in internet commerce, as well as monitoring huge multinational corporations. Failure to require many e-commerce enterprises, particularly SMEs, to submit appropriate tax returns or record correct tax liabilities may result in significant revenue losses for the government, stifling national growth.

Tax Compliance and E-Commerce

According to Verboon and Dijk (2017), tax compliance refers to people's desire to cooperate with appropriate tax authorities by paying their taxes on time. Tax compliance is described as a tax liable body's capacity to submit correct, comprehensive, and satisfying returns to the authority in accordance with state tax rules and regulations for the purpose of tax assessment (Badara, 2012). Tax compliance refers to how well or poorly a taxpayer follows his country's tax laws.

Appah and Ebiringa (2022) defined tax compliance as three distinct types of compliance: payment compliance (timely payment of all obligations), filing compliance (timely filing of any required return), and reporting compliance (accurate reporting of income and tax liability).

The Organisation for Economic Cooperation and Development (2018) classified compliance into administrative and technical categories. Administrative compliance refers to adhering to administrative requirements regarding accommodation and payment. This compliance is also known as reporting compliance or regulatory compliance. Technical compliance refers to meeting technical criteria of tax legislation. Tax compliance may be accomplished through the use of public relations, tax education, tax consultancy, advice, and examination.

Akpabi and Igbekoyi (2019) emphasised that the contact between the tax authority and the taxpayer fosters a positive connection that influences the tax payer attitude. According to Akpabi and Igbekoyi (2019), taxpayers' faith in the state increases their positive attitude and commitment to paying taxes. The eventual consequence is shown in voluntary compliance, which includes reporting and filling out tax forms, as well as paying tax obligations when they become due. This indicates that compliance is determined not just by the tax system, but also by the government's proper use of tax funds.

According to Owoye (2024), tax compliance in the e-commerce sector is impacted by a variety of factors such as tax awareness, service quality, educational programs, and statutory frameworks. Recent research has highlighted these features in various geographical contexts, providing insights into how e-commerce enterprises overcome compliance problems.

According to Khamis and Mastor (2021), great service quality and tax knowledge enhance compliance rates in Malaysian e-commerce enterprises. They discovered that a fair tax system leads to improved voluntary compliance, indicating the importance of a healthy relationship between tax authorities and enterprises. Similarly, Adam et al. (2021) found that trust in tax authorities and a clear understanding of tax requirements are critical for increasing compliance among Nigerian e-commerce consumers. This emphasises the need of transparency and good communication from tax authorities in increasing compliance rates.

Sulastri et al. (2023) investigated tax compliance elements in Indonesian e-commerce enterprises and discovered that increasing understanding of tax legislation and efficient enforcement methods improve compliance behaviour. Suhono et al. (2022) reinforced this viewpoint, emphasising the importance of tax understanding and enforcement in encouraging compliance among Micro, Small, and Medium Enterprises (MSMEs) that use e-commerce platforms. Their research suggests that education and strong enforcement measures are critical for building a culture of compliance in the digital economy. Meiryani et al. (2022) emphasise the importance of comprehensive tax education for navigating the intricacies of the digital economy.

In Nigeria, Panle and Okpara (2021) investigated tax regulations influencing social media enterprises and advocated for regulatory frameworks adapted to the specific dynamics of e-commerce. These rules should take into account the operational

realities of internet firms in order to improve compliance. Hamza Quddus et al. (2022) studied tax compliance behaviours in Pakistan and discovered that comprehending tax requirements, when paired with technology tools, considerably increases compliance rates.

Alwi (2022) examined major determinants of tax compliance intents in Malaysian e-commerce enterprises, with an emphasis on tax knowledge and the problems created by COVID-19 pandemic recovery attempts. This shows that, as firms adjust to post-pandemic conditions, improving tax education is crucial to promote compliance. Despite encouraging advancements, many e-commerce SMEs continue to have a weak awareness of tax legislation and procedures, which can result in penalties and legal ramifications. Knowledge of tax rules is required for correct computations, particularly in self-assessment systems (SAS).

According to Ratnawati et al. (2021), taxpayer awareness refers to attitudes and ideas that influence people's desire to follow tax regulations. Negative attitudes can lead to noncompliance and related sanctions.

In conclusion, tax compliance for e-commerce enterprises is a complicated issue driven by awareness, service quality, legal frameworks, and the changing digital world. Continuous efforts to increase tax education, improve service quality, and create supportive regulatory settings are critical for promoting compliance in this dynamic industry. Addressing knowledge gaps and promoting good attitudes towards compliance will be critical for the long-term success of e-commerce enterprises.

The purpose of this study is to determine the factors that influence tax awareness and knowledge among Nigerian e-commerce SMEs, specifically in Lagos State. Its specific goal is to identify the link between three behavioural elements among these SMEs: tax awareness, taxpayer attitudes, and tax penalties. Understanding these linkages has the potential to increase voluntary tax compliance (Saad, 2009) and assist policymakers recognise the importance of tax knowledge and the intricacies of the tax system, resulting in enhanced compliance efforts.

Study's Research Questions

This study seeks to explore the factors that impact tax knowledge and awareness among Nigerians e-commerce SMEs, which is critical for improving compliance with tax rules and increasing national revenue production. Tax knowledge is essential for raising tax awareness because it allows taxpayers to keep correct records, generate educated tax estimates, and meet their tax responsibilities under the Self-Assessment System (SAS). Previous research by Alabede et al. (2011) found a positive association between tax knowledge and tax awareness behaviour, emphasising that taxpayers who understand tax law are better able to handle their duties.

Consequently, the first research question is:

Does tax knowledge improve tax awareness among e-commerce SMEs in Lagos, Nigeria?

In addition to tax knowledge, individual psychological characteristics such as moral views and attitudes play an important role in creating tax awareness (Owoeye, 2024). Nkundabanyanga et al. (2017) contend that strong ethical beliefs and a sense of social duty promote voluntary tax compliance. Forest and Sheffrin (2002) and Chan et al. (2000) found that taxpayers who believe the tax system to be fair are more likely to comply.

These studies show that taxpayers' views, which include perceived justice and moral reasoning, impact their willingness to pay taxes. Bobek (1997) and Bobek and Hatfield (2003) found that a favourable compliance attitude leads to greater tax payment behaviour.

The second research question is:

Is attitude a beneficial impact on tax awareness among e-commerce SMEs in Lagos, Nigeria?

Furthermore, tax penalties play an important role in encouraging tax compliance and raising awareness. Rahmayanti and Prihatiningtias (2020) argued that regular enforcement of tax fines might encourage taxpayers to comply. Palil (2010) revealed a substantial link between taxpayer knowledge of fines and compliance, implying that increased awareness leads to a better grasp of the repercussions of noncompliance. The consequence is that raising awareness about tax penalties can increase compliance rates.

The third research question is:

Does tax penalty affect tax awareness among e-commerce SMEs in Lagos, Nigeria?

This study's research topic reflects the interaction of the following factors: the beneficial impact of tax knowledge on tax awareness, the influence of attitudes on compliance behaviour, and the crucial function of tax penalties in increasing taxpayer awareness and compliance. As Nigeria's e-commerce sector expands, policymakers and tax officials must understand these characteristics in order to develop a culture of compliance and preserve the tax system's long-term viability.

Research Theoretical Perspectives

The Theory of Planned Behaviour (TPB) sheds light on how attitudes, subjective norms, and perceived control affect tax knowledge and compliance among small and medium-sized businesses (SMEs). Positive attitudes towards taxation, which might derive from understanding its societal advantages, promote compliance. In contrast, unfavourable attitudes towards taxes might deter it (Alm et al., 2022). Subjective norms, or perceived social pressure from peers and professional networks, have a substantial impact on compliance decisions. SMEs are more likely to comply if they feel their peers prioritise tax responsibilities (Owoeye, 2024). Furthermore, perceived behavioural control shows SMEs' confidence in their capacity to satisfy tax regulations, which can boost compliance when they feel prepared and supported (Alm & Torgler, 2011).

Institutional Theory supplements TPB by investigating the influence of government legislation and societal norms on SME tax behaviour. Effective legislation and help from tax authorities increase tax knowledge, resulting in higher compliance rates (Evans, et al 2013). Furthermore, societal norms that consider tax compliance as a civic responsibility have a substantial impact on SMEs' behaviour; in cultures where compliance is prized, SMEs are more likely to follow tax regulations to prevent reputational damage (Torgler, 2007). These theories stress the interaction of individual attitudes, societal pressures, and institutional frameworks in shaping tax compliance behaviour among SMEs.

The next part will go into the study approach used to examine these links further.

Research Methodology

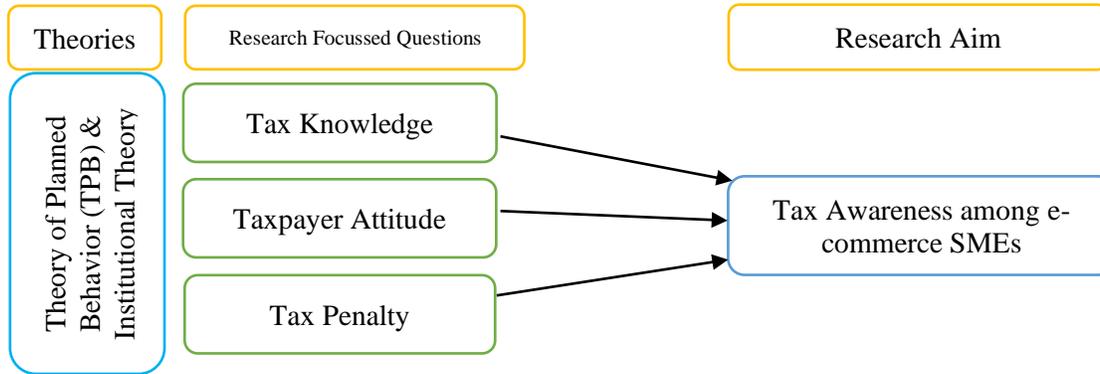
This study looks into the factors that influence tax knowledge among e-commerce SMEs in Lagos, Nigeria, with a focus on the insights offered by the Federal Inland Revenue Service. The selection of SMEs was strategically led by FIRS statistics, which identified Lagos as the jurisdiction with the largest concentration of SMEs. To facilitate a thorough and precise selection procedure, the Federal Inland Revenue Service provided a full list of SMEs and Small and Medium Enterprise Development Agency of Nigeria (SMEDAN). This method made it easier to choose a representative sample that correctly reflects the region's different SMEs.

Data was collected via a structured questionnaire issued from a list given by the Federal Inland Revenue Service and Small and Medium Enterprise Development Agency of Nigeria (SMEDAN). A total of 1000 surveys were delivered to potential responders, yielding 270 completed replies. However, after careful consideration, 20 replies were eliminated owing to noncompliance with the specified analytic criteria, resulting in a final dataset of 250 legitimate responses. This reflects a 25% response rate, which is within the acceptable range specified by Kerlinger and Pedhazur (1973), suggesting that response rates ranging from 20% to 40% are appropriate for study. This response rate is judged appropriate for obtaining significant insights and assuring the dependability of the findings within the context of the study goals (Wilson et al, 1997).

Overall, the methodology used in this study not only adheres to known survey research standards, but it also improves the reliability and robustness of the findings, resulting in a better knowledge of tax awareness among e-commerce SMEs in Lagos, Nigeria. The questionnaire is divided into five sections: demographic information, level of tax awareness, tax knowledge, attitude, and tax penalties. The questionnaires used in this study were modified from recognised sources, specifically the works of Savitri and Musfialdy (2016), and Barone and Mocetti (2011).

Data screening, inferential analysis, normality and validity tests were used to confirm the validity and reliability of the findings, particularly in the descriptive analysis.

Theoretical Framework for this research



Results and Discussions

The study of the factors influencing tax awareness among e-commerce SMEs in Lagos, Nigeria, yields noteworthy findings and is separated into descriptive statistics and results analysis.

Descriptive Statistics

As seen in Table 1, the gender distribution shows a clear trend: 149 (59.6%) of participants identified as female, whereas 101 (40.4%) identified as male. This data implies that women are increasingly engaged in internet enterprises, mirroring wider cultural developments towards female entrepreneurship (Orser and Riding, 2018; Brush et al., 2019).

The age distribution of respondents under the age of 30 were the most active, accounting for 95 (38%) of the total. This tendency may be related to this age group's high technological competency, which makes them more likely to grab e-commerce chances (Koe et al., 2019). Furthermore, the 30–39 age groups exhibited a high rate of utilisation of e-commerce for their enterprises and technology. This was further proven by the fact that Lagos is Africa's technological powerhouse.

Educational background also influences tax awareness, with 218 (88%) respondents possessing a bachelor's degree or more. This proportion of respondents with higher educational credentials suggests a better grasp of financial and taxation issues, which may improve tax awareness and compliance behaviour (Fjeldstad & Moore, 2008). Overall, these demographic data are critical for structuring instructional and support activities to raise tax knowledge among SMEs in Lagos, Nigeria.

The demographic data further revealed impact of firm size on e-commerce of SMEs in Lagos, Nigeria. The results reviewed that many of the respondents are involved in micro businesses with less than 5 employees which include the Business owners and few family members with 140 (64%) of the sample. This clearly demonstrate that many micro businesses are engaging in e-commerce business activities.

The longevity of businesses that engaged in e-commerce are guaranteed at least 5 years of business activities with 155 (62%) of the respondents emphasizing longevity of 5 to over 20 years of business activities. This is due to the business cost reduction ability of e-commerce activities brings to the micro, small and medium enterprises in Lagos Nigeria.

In summary, the demographic insights help to analyse the study's findings and understand the characteristics of the research participants.

Table 1: Descriptive Analysis for Demographic Data

Gender of respondents:	Frequency	Percentage (%)
Male	101	40.4
Female	149	59.6

Age of respondent of respondents		
Under 30 years old	95	38
30- 39 years old	75	30
40 - 49 years old	45	18
Above 50 years old	35	14
Education Level		
O level or equivalent	32	12.8
Diploma or equivalent	70	28
Bachelor's Degree or equivalent	88	35.2
Master's Degree	50	20
PhD	10	4
Firm Size		
Micro (0-5 employees)	140	64
Small (5-49 employees)	75	30
Medium (50 -99employees)	35	6
Business Duration (years)		
Less than 5 years	95	38
5 – 10 years	62	24.8
11 -15 years	48	19.2
16 - 20 years	32	12.8
20 years and Above	13	5.2

Source: Compiled by author

Results Discussion

The discussions below should provide robust answers to the research questions in this paper.

The first research question is:

Does tax knowledge improve tax awareness among e-commerce SMEs in Lagos, Nigeria?

The paper argued that the knowledge of taxation, individual psychological characteristics plays critical roles in creating tax awareness. Based on the results of the questionnaire, 99% of the respondents argued that tax knowledge improved tax awareness among e-commerce SMEs in Lagos, Nigeria. This result was in line with Hashim et al (2020).

This aligns with prior research indicating that a positive moral outlook enhances tax compliance due to increased awareness (Alm et al., 2022, Hantono, 2021 and Owoeye 2024).

However, there was no strong evidence of tax knowledge leading the social duty from Lagos e-commerce SMEs for voluntary compliance with their tax obligation. The results revealed that only 20% of the respondents are willing to voluntarily comply with their tax obligations. This finding does not align with the findings of Nkundabanyanga et al. (2017). They argued that strong ethical beliefs and a sense of social duty should promote voluntary tax compliance.

Furthermore, the results from the questionnaire revealed that 96% of the respondents believed that the tax system is broken and it was mainly directed to the poor people in the society. Owoeye (2024) argued that citizens perception of unfair tax system does not promote tax compliance. In addition, papers of Forest and Sheffrin (2002) and Chan et al. (2000) argued that for a robust tax system that delivers on economy prosperity, the taxpayers should believe the tax system to be fair and equitable for ease of compliance.

This research examined that roles of the taxpayers' views on perceived justice and moral reasoning, impact their willingness to pay taxes. The results from the questionnaire revealed that 92% of the respondents perceived justice, moral reasoning and persuasion should make more taxpayers be willing to pay their fair share of taxes. The papers of Bobek (1997) and Bobek and Hatfield (2003) found that a favourable compliance attitude leads to greater tax payment behaviour.

The second research question is:

Is attitude a beneficial impact on tax awareness among e-commerce SMEs in Lagos, Nigeria?

This research examined the impact of tax awareness among e-commerce SMEs in Lagos, Nigeria, and the results of impact of tax penalties to encourage tax compliance and raising awareness revealed that 78% of the respondents agreed that tax penalties play an important role in encouraging tax compliance and raising awareness. The paper of Owoeye (2024) argued for this position. Furthermore, Rahmayanti and Prihatiningtias (2020) argue that regular enforcement of tax fines might encourage taxpayers to comply.

This paper argued that the extend of the taxpayer's knowledge of tax penalties and fines on tax compliance with e-commerce SMEs in Lagos, Nigeria is considered high. This was supported by 80% of the respondents argued with this position. Palil (2010) found a strong correlation between taxpayer knowledge of penalties and compliance, showing that higher awareness leads to a better understanding of the consequences of noncompliance.

As a result, increasing knowledge of tax penalties has the potential to boost compliance rates.

The third research question is:

Does tax penalty affect tax awareness among e-commerce SMEs in Lagos, Nigeria?

This research reflected on the interaction of the following factors: the beneficial impact of tax knowledge on tax awareness is critical to the attitudes on compliance behaviour by the taxpayers. The results of the questionnaire revealed that 97% of the respondents of the questionnaire agreed with this position. Owoeye (2024) argued that tax knowledge and tax penalties should increase taxpayer awareness and compliance.

As Nigeria's e-commerce sector grows, regulators and tax authorities must recognise these features in order to foster compliance and ensure the tax system's long-term survival.

This conclusion is consistent with Kamil (2015), emphasising the importance of punitive measures in promoting tax compliance among internet company owners. The impending possibility of fines pushes business owners to meet their tax duties in order to avoid financial ramifications, hence increasing their general understanding of tax regulations.

Conclusions

This study provides considerable empirical data on the relationship between tax awareness in e-commerce SMEs and major influencing factors such as tax knowledge, taxpayer attitudes, and tax penalties. Based on the "Theory of Planned Behaviour," the study investigates three fundamental ideas.

The first research question suggests that tax expertise has a considerable impact on tax awareness among internet company owners. However, the data show that formal or informal tax education does not significantly increase tax awareness. This conclusion is consistent with prior research, such as that of Ghani et al. (2020), which found that many respondents were uninformed of their tax responsibilities. Furthermore, Li and Sarte (20044) found that tax knowledge has little direct affect on compliance behaviours. These findings illustrate the complicated link between tax knowledge and awareness, indicating that education alone may not be adequate to raise tax awareness among internet company owners.

The second research question claims that taxpayer attitudes greatly influence tax knowledge. The study's findings confirm this premise, suggesting that trust and a sense of duty promote tax compliance. The research question respondents expressed a desire to demonstrate ethical behaviour, implying that good views towards taxation might increase compliance awareness. Torgler et al. (2008) observed that favourable taxpayer sentiments associate with higher compliance rates. Thus, it appears that intrinsic incentive, rather than legal requirement, is crucial in shaping faith in the tax system.

The final research question suggests that tax penalties have a considerable impact on tax knowledge among internet business owners. The research indicates that anticipating punitive measures from tax authorities enhances compliance with tax legislation. The Nigeria Tax Act authorises tax inspectors to levy fines on tax evaders, emphasising compliance with tax legislation. This is consistent with the findings of Kamil (2015), who discovered that fines successfully increase tax knowledge among business owners. The prospect of financial loss owing to fines is a powerful motivation for compliance, highlighting the crucial role of enforcement in moulding tax behaviour.

Limitations and Prospects for Future Research

Despite its merits, this research has certain limitations, particularly its concentration on e-commerce enterprises in Lagos, Nigeria. The omission of offline firms may obscure several variables impacting tax knowledge in the larger company ecosystem. Future study should aim to vary the sample by include a variety of company kinds and sizes from different geographic locations. Such a comparison approach will help us understand the processes that influence tax awareness and compliance.

Furthermore, while this study focusses on particular characteristics such as tax knowledge, taxpayer attitudes, and tax penalties, future research should investigate a broader variety of aspects consistent with the Theory of Planned Behaviour. This comprehensive method would produce more nuanced results, eventually helping the Nigerian economy by promoting better tax compliance practices among SMEs.

References

- Alabede, J. O., Ariffin, Z. Z., & Idris, K. M. (2011). Determinants of tax compliance behaviour: A proposed model for Nigeria. *International Research Journal of Finance and Economics*, 78(1), 121-136.
- Adam, S. M., et al. (2021). Determinants of tax compliance intentions among e-commerce users in Nigeria: Awareness and trust. *International Journal of Economics and Finance*, 13(2), 80–90. <https://doi.org/10.5539/ijef.v13n2p80>
- Ahmad, S. Z., Abu Bakar, A. R., Faziharudean, T. M., & Zaki, K. A. M. (2015). An empirical study of factors affecting e-commerce adoption among small- and medium-sized enterprises in a developing country: Evidence from Malaysia. *Information Technology for Development*, 21(4), 555–572. <https://doi.org/10.1080/02681102.2015.1032516>
- Alias, N. E., Sehat, N. S., Othman, R., Marmaya, N. H., & Koe, W. L. (2019). Determinants of job stress in affecting employees' life: A study on the Malaysian manufacturing sector. *International Journal of Academic Research in Business and Social Sciences*, 9(7), 614-627.
- Alwi, N. H. (2022). Predictors of tax compliance intentions in Malaysian e-commerce businesses: Focus on tax knowledge and recovery from COVID-19. *Journal of Business and Social Review in Emerging Economies*, 8(1), 25–32. <https://doi.org/10.26710/jbsee.v8i1.1066>
- Alm, J., Gerbrands, P., & Kirchler, E. (2022). Using “responsive regulation” to reduce tax base erosion. *Regulation & Governance*, 16(3), 738-759.
- Alm, J., & Torgler, B. (2011). Do ethics matter? Tax compliance and morality. *Journal of Business Ethics*, 101, 635-651.
- Atawodi, O. W., & Adebayo, M. A. (2012). Tax compliance and tax education in Nigeria: A study of selected SMEs. *International Journal of Business and Social Science*, 3(12), 35–45.
- Atawodi, O. W., & Ojeka, S. A. (2012). Factors that affect tax compliance among small and medium enterprises (SMEs) in North Central Nigeria. *International Journal of Business and Management*, 7(12), 87–96.
- Appah & Ebiringa (2022). The problems of tax planning and administration in Nigeria: The federal and state governments experience, *International Journal of Labour and Organisational Psychology*, 4(1 & 2), 1-14.

- Akpubi, M.D. & Igbekoyi, O.S. (2019). Electronic taxation and tax compliance among some selected fast food restaurants in Lagos state, Nigeria (tax payers perspective). *European Journal of Accounting, Auditing and Finance Research*, 7(7), 52-80 www.eajournals.org
- Badara, M.S. (2012). The effect of tax audit on tax compliance in Nigeria, *Research Journal of Finance and Accounting*, 3(4), 74-81 <https://core.ac.uk>
- Barone, G., & Mocetti, S. (2016). Inequality and trust: New evidence from panel data. *Economic Inquiry*, 54(2), 794-809.
- Bobek, D. D. (1997). *Tax fairness: How do individuals judge fairness and what effect does it have on their behavior?*. University of Florida.
- Bobek, D. D., & Hatfield, R. C. (2003). An investigation of the theory of planned behavior and the role of moral obligation in tax compliance. *Behavioral research in accounting*, 15(1), 13-38.
- Brush, C., Edelman, L. F., Manolova, T., & Welter, F. (2019). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 53, 393-408.
- Chan, C. W., Troutman, C. S., & O'Bryan, D. (2000). An expanded model of taxpayer compliance: Empirical evidence from the United States and Hong Kong. *Journal of international accounting, auditing and taxation*, 9(2), 83-103.
- Coupey, E. (2001). Tax evasion in e-commerce: The challenges for tax authorities. *Journal of Internet Law*, 4(7), 3-12.
- Evans, C., Lignier, P., & Tran-Nam, B. (2013). Tax compliance costs for the small and medium enterprise business sector: Recent evidence from Australia. *Tax Administration Research Centre University of EXETER Discussion Paper*, 003-13.
- Forest, A., & Sheffrin, S. M. (2002). Complexity and compliance: An empirical investigation. *National Tax Journal*, 55(1), 75-88.
- Fjeldstad, O. H., & Moore, M. (2008). Tax reform and state building in a globalized world. *Taxation and state building in developing countries*.
- Ghani, H. H. A., Abd Hamid, N., Sanusi, S., & Shamsuddin, R. (2020). The effect of tax knowledge, compliance costs, complexity and morale towards tax compliance among self-employed in Malaysia. *Global Business and Management Research*, 12(1), 18-32.
- Hantono, H. (2021). The Influences of Tax Knowledge, Tax System, Self-Assessment System, and Tax Morale on Tax Compliance. *Journal of Research in Business, Economics, and Education*, 3(4), 107-125.
- Hamid, N. A., Ismail, I. R., Yunus, N., Jali, M. A. M. R. M., & Rosly, A. S. (2022). Taxpayer perceptions of tax awareness, tax education, and tax complexity among small and medium enterprises in Malaysia: A quadrant analysis approach. *Universal Journal of Accounting and Finance*, 10(1), 231-242. <https://doi.org/10.13189/ujaf.2022.100124>
- Hamza Quddus, D. S. Q., et al. (2022). Tax compliance behavior of e-commerce businesses in Pakistan: Awareness of tax policies and technology's role. *Pakistan Journal of Commerce and Social Sciences*, 16(1), 128-144.
- Hashim, S. H., Azman, M. N., & Bahari, N. (2020). Tax compliance among SMEs: The role of tax knowledge and awareness. *International Journal of Financial Research*, 11(4), 24-34.
- Kamil N. (2015). The Effect of Taxpayer Awareness, Knowledge, Tax Penalties and Tax Authorities Services on the Tax Compliance. *Research Journal of Finance and Accounting*, 6(2).

- Khamis, I. H., & Mastor, N. H. (2021). The effect of service quality, tax awareness, and tax fairness on tax compliance among e-commerce businesses in Malaysia. *International Journal of Accounting and Financial Reporting*, 11(1), 1–17. <https://doi.org/10.5296/ijafr.v11i1.18001>
- Kerlinger, F. N & Pedhazur, E. J (1973), *Multiple Regression in Behaviour Research* (New York, Holt, Rinehart & Winston)
- Li, W., & Sarte, P. D. (2004). Progressive taxation and long-run growth. *American Economic Review*, 94(5), 1705-1716.
- MDEC. (2021). Digital economy outlook: Malaysia 2021. Malaysia Digital Economy Corporation.
- Malaysia Digital Economy Corporation. (2021). E-commerce trend radar. Retrieved from <https://mdec.my/e-commerce-trend-radar>
- Meiryani, M., et al. (2022). Tax compliance among MSMEs using e-commerce in Indonesia: The role of digital platforms. *International Journal of Economics and Business Research*, 24(3), 200–215. <https://doi.org/10.1504/IJEER.2022.119325>
- Mukti, A. N. (2000). Barriers to putting businesses on the internet in Malaysia. *The Electronic Journal of Information Systems in Developing Countries*, 2(1), 1–6. <https://doi.org/10.1002/j.1681-4835.2000.tb00013.x>
- Nkundabanyanga, S. K., Mvura, P., Nyamuyonjo, D., Opiso, J., & Nakabuye, Z. (2017). Tax compliance in a developing country: Understanding taxpayers' compliance decision by their perceptions. *Journal of Economic Studies*, 44(6), 931-957.
- OECD Annual Report 2003. (2003). In OECD eBooks. <https://doi.org/10.1787/annrep-2003-en>
- Orser, B. J., & Riding, A. (2018). The influence of gender on the adoption of technology among SMEs. *International Journal of Entrepreneurship and Small Business*, 33(4), 514-531.
- PALIL, M. R., AMIN, H. B., & TURMIN, S. Z. (2020). Challenges in Implementing Taxes on E-Commerce Transactions in Malaysia. *Jurnal Bisnis Dan Akuntansi*, 22(2), 179-200.
- Panle, R. A., & Okpara, A. J. (2021). Tax policies on e-commerce in Nigeria's informal sector: A focus on social media businesses. *African Journal of Business Management*, 15(6), 215–224. <https://doi.org/10.5897/AJBM2021.9180>
- Poorangi, M. M., Khin, E. W., Nikoonejad, S., & Kardevani, A. (2013). E-commerce adoption in Malaysian small and medium enterprises practitioner firms: A revisit on Rogers' model. *Annals of the Brazilian Academy of Sciences*, 85(4), 1593–1604. <https://doi.org/10.1590/0001-37652013103512>
- Rahmayanti, N. P., & Prihatiningtias, Y. W. (2020). Effect of tax penalties, tax audit, and taxpayers awareness on corporate taxpayers' compliance moderated by compliance intentions. *International Journal of Research in Business and Social Science* (2147-4478), 9(2), 118-124.
- Ratnawati, R., Yasa, I. K., & Yudianto, Y. (2021). The role of taxpayer awareness in tax compliance: Evidence from Indonesia. *International Journal of Economics, Business and Management Research*, 5(4), 27–35. Retrieved from <https://www.ijebmr.com/>
- Saad, N. (2009). Fairness perceptions and compliance behaviour: The case of salaried taxpayers in Malaysia after implementation of the self-assessment system. *E Journal of Tax Research*, 8(1), 32–63.
- Savitri E, & Musfiaily (2016). The effect of taxpayer awareness, tax socialization, tax penalties, compliance cost at taxpayer compliance with service quality as mediating variable. *Procedia -Social and Behavioral Sciences*. 2016;219:682–687. Available: <https://doi.org/10.1016/j.sbspro.2016.05.051>

- Sormin, F. (2021). The effect of online taxation socialization, e-commerce, application of accounting standards on tax compliance of micro, small and medium enterprises in Jakarta. *International Journal of Academic Research in Business and Social Sciences*, 11(4), 295–302.
- Sun, H., Teh, P., & Chiu, A. (2012). An empirical study on the websites service quality of Hong Kong small businesses. *Total Quality Management*, 23(8), 931–947.
- Sulastri, S., et al. (2023). Factors influencing tax compliance in Indonesian e-commerce businesses. *Journal of Accounting Research, Organization and Economics*, 26(1), 50–65. <https://doi.org/10.2139/ssrn.4328231>
- Suhono, S., Rizal, A., Batu, R. L., & Sukrianingrum, D. R. (2022). Factors affecting MSME taxpayer compliance in West Java Indonesia using e-commerce platforms. *Journal of Positive School Psychology*, 6(2), 5472–5486.
- Suhono, S., et al. (2022). Tax compliance of MSMEs using e-commerce platforms in West Java, Indonesia: Considering tax knowledge and enforcement. *Asian Journal of Accounting Research*, 7(1), 62–76. <https://doi.org/10.1108/AJAR-04-2022-0042>
- Tallaha, A. M., Shukor, Z. A., & Hassan, N. S. A. (2014). Factors influencing e-filing usage among Malaysian taxpayers: Does tax knowledge matter? *Journal Pengurusan*, 40, 91–101.
- Torgler, B. (2007). *Tax compliance and tax morale: A theoretical and empirical analysis*. Edward Elgar Publishing.
- Organisation for Economic Co-Operation and Development (2018). *Compliance Risk Management: Managing and Improving Tax Compliance*, Published by Centre For Tax Policy And Administration <https://www.oecd.org>
- Owoeye, A. B (2024), An Analysis of Revenue Management Efficiency in Nigeria: A Critical Examination from the perspectives of Tax Professionals, Vol 23, Issue 1, page 1-19, <https://idpr.org.uk/index.php/idpr/article/view/327>
- Owoeye, A.B (2024), A Critical Examination of the E-Taxation, Improvement in Tax Compliance and Revenue Collection for Economic Development in Nigeria: An Examination covering 2008 to 2023, *International Journal for Multidisciplinary Research (IJFMR)* – IJFMR Volume 6, Issue 3 (May- June 2024), <https://doi.org/10.36948/ijfmr.2024.v06i03.20547>
- Verboon, P., and M. van Dijke. 2011. “When do Severe Sanctions Enhance Compliance? The Role of Procedural Fairness.
- Wilson, K. L., Lizzio, A., & Ramsden, P. (1997). The development, validation and application of the Course Experience Questionnaire. *Studies in Higher Education*, 22(1), 33–53. <https://doi.org/10.1080/03075079712331381121>
ychology 32: 120–130.