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**THE MODERATING ROLE OF TAX COMPLEXITY ON THE RELATIONSHIP  
BETWEEN TAX RATE, PENALTY, DETECTION PROBABILITY AND PERSONAL  
INCOME TAX EVASION IN NIGERIA: A CONCEPTUAL FRAMEWORK**

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**Abstract**

*Extant Literature revealed a low level of tax compliance due to high increase in tax evasion among individual in Nigeria. Tax evasion issues create extensive debate among policymakers globally. Due to the importance of taxes to the Nigerian economy, this study designs a framework to serve as a policy tool to reduce tax evasion among personal income taxpayers. The framework is based on economic deterrence theory which comprises tax rate, penalty detection probability and personal income tax evasion. Additionally, tax complexity served as the moderating variable between the exogenous variable and the endogenous construct. If validated, the framework would provide more meaningful insight on the causative agent of tax evasion in Nigeria. Nigerian policymakers would benefit immensely from the study if finally conducted as it would help the government to reduce the level of tax evasion, thereby increasing the government revenue. The proposed framework will be empirically examined via collection and analysis of the relevant data.*

**Keywords:** Tax evasion; deterrence variables; personal income tax; penalty; Nigeria

**Introduction**

Nigeria is a sovereign nation located in Sub-Saharan Africa with population more than 200 million people. Nigerian is regarded as the giant of Africa due to its economic power with abundant human and natural resources. Like all other countries globally, Nigeria strives to generate revenue to cater for the needs of its citizens. As a result, Nigerian government enacted several tax laws which include among others; personal income tax Act, company income tax Act, petroleum profit tax Act, value added tax Act, stamp duty Act, tertiary education trust fund Act (FIRS, 2023). However, this study focused on Personal Income Tax Act (PITA) sec 104 of 1993 defined PITA "as tax impose on income of individuals, communities, families and on executors and trustees, and to provide for the assessment and collection and administration of tax".

This definition provides a detail of persons liable to personal income tax in Nigeria.

Report has it that personal income tax revenue consistently remains very low over the last decades, in fact it contributes less than one percent to the growth domestic products (Uduu, 2022). The declined in the contribution of personal income tax to the GDP is directly connected to tax evasion ((Uadiale, Fagbemi & Ogunleye, 2010; Felix, & Rufus, 2021). Based on this evidence this study is designed to introduce a model using economic deterrence theory to determine the causes of personal income tax evasion in Nigeria. Nigeria is selected because it is the largest economy in Africa with GDP over USD1.085 trillion at end of 2022, over an above South Africa with GDP USD807 billion for the same year 2022. Economic deterrence theory was selected to serve as the theoretical foundation of this study due its evident in identifying the likely causes of tax evasion among individual taxpayers (Allingham & Sandmo, 1972). To the best of the researcher knowledge investigation into the effect of economic deterrence variables with moderating effects of tax complexity is lacking in the existing literature. Nonetheless, few researchers have examined the impact of tax evasion in Nigerian context, for example, Omodero (2019) examine the effect of tax evasion and its consequences on Nigerian economy. Additionally, Adekoya, Oyebamiji & Lawal (2020) investigate the effects of forensic accounting, tax fraud and tax evasion in Nigeria, and Otekunrin et al. (2021) examine the effects of E-tax system effectiveness in reducing tax evasion in Nigeria. Therefore, current study differs significantly from these studies in manifold; for instance, none of the study used economic deterrence variables. Secondly, none of the study focus on personal income tax, and thirdly, none of the study examine the moderating role of tax complexity on the relationship between economic deterrence variables and tax evasion in the Nigerian context.

## **Literature Review**

### **Economic Deterrence Theory**

The first economic tax compliance model was derived from the deterrence theory which originated from the seminal work of Becker (1968) and adopted by Allingham and Sandom (1972) into tax compliance domain. The theory was initially built based on economics of crime approach. The theory examines the deterrence effect of threats, punishment, or sanctions on unwanted or illegal behaviour. The theory suggests that, the different categories of crimes committed by individuals are done not because of the motivational factors to commit the crime, but rather because of the difference in the expected benefit as well as the expected cost of committing such crimes. The theory is simply implying that taxpayers are rational human beings who choose between available alternatives to maximize expected utility. Moreover, Becker (1968) stressed that the alternative decision on expected utility of an individual is, however, determined by the possible outcomes. Therefore, this study

postulates that taxpayers may consider the tax rate as very high, or lack of strong detection tools and lack of penalty mechanism to resort to tax evasion.

### **Tax Rate**

Accordingly, many scholars have investigated the influence of tax rate on tax compliance. For example, Mas'ud et al. (2014) used simple regression to investigate the influence of tax rate on tax compliance in Africa, within the period of 2012 to 2013. The study covered 61 African countries, and the result indicated a significant negative effect of tax rates on tax compliance. However, their findings were not specific to the petroleum sector. For this reason, it may not be a good benchmark for determining the actual effect of the variables. Furthermore, higher tax rate does not essentially imply high tax compliance, hence tax payments depend on the tax base (Vintila et al., 2018). Vintila et al. (2018) further argued that most essential measure of corporate income tax is the statutory tax rate, and that the tax rate may be significant, depending on the existing tax policy. Consequently, this study argued that current personal income tax rate may have great influence on taxpayers' behavior toward tax evasion.

Furthermore, tax rate also has been found to have negative relationship with tax compliance (Garcia, Alvarado, & Pellizzari, 2020). Similarly, Freindland, Maital, and Rutenberg (1978), Collins and Plumlee (1991), Alm et al. (1992), and Park and Hyun (2003) in different laboratory experiments using differential tax rates, found that an increase in tax rates leads to higher evasion. Based on the above the following hypotheses developed.

*H1. There is a positive relationship between tax rate and personal income tax evasion.*

*H1a. Tax complexity moderate the relationship between tax rate and personal income tax evasi*

### **Detection Probability**

Probability of detection is defined by Chau and Leung (2009) as the possibility that the tax authority can discover tax non-compliance by taxpayers. Probability of detection has received considerable attention from many scholars. For example, Alm et al. (2004) emphasized that, probability of detection has a significant double deterrent effect on taxpayers. The authors further argued that there is a direct deterrent effect on taxpayers being audited, as well as an indirect effect on taxpayers that are not actually being audited. Additionally, the authors further stated that as the probability of detection goes higher, this may or may not encourage tax compliance. As noted in Kirchler (2007), tax evaders always regard the chance of

being detected to be low. Thus, this study postulates that taxpayers may see the probability of being detected as low which may encourage their tax evasion behavior.

Empirical evidence regarding the effect of detection probability on tax compliance or non-compliance largely indicated that most of the studies found positive relationship between detection probability and tax compliance. A study conducted by Alm (1991) indicated a positive effect between detection probability and tax compliance. Additionally, research conducted using survey found a positive relationship between detection probability and tax compliance among defaulters and compliant taxpayers (Mason & Calvin, 1978). Based on the literature above the following hypotheses developed.

*H2. There is negative relationship between detection probability and personal income tax evasion.*

*H2a. Tax complexity moderate the relationship between detection probability and personal income tax evasion*

### **Penalty**

Penalty refers to the punishment through payment of monies (fines) levied on those who violate the rules and regulation (Savitri & Musfaldy, 2016). The authors further argued that there are two types of tax penalties in tax law: the criminal sanction and the administrative sanction. The administrative sanction is imposed when taxpayers violate administrative rules and regulations. Such taxpayers pay penalties and/or interest while criminal sanctions may involve a jail sentence. Additionally, penalty is considered as the preventive measure employed by tax authorities on taxpayers (Devos, 2013). This study argued that taxpayers may consider low penalty mechanism to carry out tax evasion activities.

Deterrence theory suggests that taxpayers comply with their tax responsibilities to avoid legal sanctions such as penalties (Doran, 2009). Moreover, the existing literature regarding the effect of penalty on tax compliance indicates a positive relationship between the two variables. Additionally, penalty encourages tax compliance (Allingham & Sandmo, 1972). Virmani (1989) found a positive relationship between higher tax penalty rate and tax compliance, and further argued that imposing higher penalty rates may force the taxpayers to behave honestly. Based on the above the following hypotheses developed.

*H3. There is a negative relationship between penalty and personal income tax evasion*

*H3a. Tax complexity moderate the relationship between penalty and personal income*

tax evasion.

### Tax Complexity

The term tax complexity means the presence of ambiguity in the tax laws and procedure for tax compliance (McKercher, Ingraham, & Karlinsky, 2005). More so, a positive relationship between tax complexity and tax compliance was found by some researchers (Kirchler et al., 2006). Even though, most of the empirical evidence regarding the effect of tax complexity and tax compliance largely shows a negative relationship between complexity and tax compliance (McKerchar, 2003; Cox & Eger, 2006; Gambo, Mas'ud, Nasidi & Oyewole, 2014). Some show insignificant effect of tax complexity on tax compliance (Forest & Sheffrin, 2002). In their own study, Abdul and McFie (2020) found significant relationship between tax complexity and fairness. Ma, Guo and Yu (2020) found a significant relationship between tax complexity and tax avoidance. Furthermore, tax complexity has significant influence on tax compliance (Heang & Yongjin, 2020). Based on this evidence, it become clear that tax complexity has a strong influence on tax compliance behavior, therefore, this study suggests tax complexity can moderate the relationship between tax rate, detection probability, penalty, and tax evasion.

### Theoretical Framework

The theoretical framework is a diagram that links variables diagrammatically and logically in order to show the relationship amongst the constructs in a proposed model. The theoretical framework is needed to understand the extent of personal income tax evasion behaviour specifically individual taxpayer in Nigeria, such theoretical framework maybe required. To understand personal income tax evasion behavior in Nigeria, the framework of this study includes tax rate, detection probability, penalty and personal income tax evasion, while tax complexity serves as moderating variable. The framework is depicted in Figure 1 below.

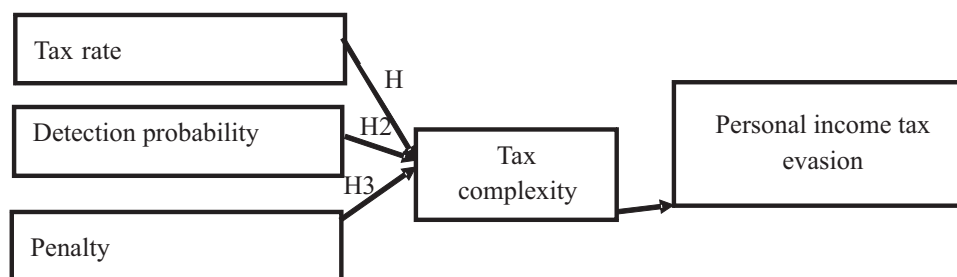


Figure 1. Proposed Theoretical Framework

### Proposed Methodology

The hypotheses and model set out above will be tested empirically after data collection. This study is going to employ a quantitative research approach to examine the relationship among the variables indicated in the research model; tax rate, detection probability, penalty and personal income tax tax evasion, as well as the moderating effect of tax complexity amongst the constructs. The hypotheses of this study will be tested using Partial Least Squares (PLS) path modelling. This study proposes a cross-sectional design because the data will be obtained from the respondents at one point in time. The cross-sectional design is given priority in this study because of its cost-effectiveness and timesaving (Sekaran & Bougie, 2016). In line with the previous studies taxations (e.g., Ayuba, 2016; Mas'ud, 2016), this study considers survey questionnaire for data collection purpose. The questionnaire is an appropriate approach to provide an answer to the research objectives because of its wide acceptability for data collection that entails large population, which is difficult to observe directly (Keeter, 2005).

### Conclusion

This study focuses on personal income tax evasion amongst individual taxpayers in Nigeria. The model proposed in this work is theorised based on the extensive review of the existing literature. This study design to investigate the influence of tax rate, detection probability, penalty on personal income tax evasion. Additionally, the paper design to examine the moderating effects of tax complexity on the relationship between the constructs under investigation. Thus, the model is in the process of validation, if validated the model would offer more insight on the level of personal income tax evasion perpetrated by individual taxpayers in Nigeria.

This study extends the present literature on taxation not only in Nigeria, but globally. Overall, it has been theoretically established that tax complexity has great influence on tax compliance, hence, this study proposed to explore its effect as potential moderator. Nevertheless, since the current study is a conceptual work, the proposed model can be empirically tested by appropriate data collection and analysis.

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