Determinants of personal income tax compliance: Perception of Nigerian taxpayers

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DETERMINANTS OF PERSONAL INCOME TAX COMPLIANCE: PERCEPTION OF NIGERIAN TAXPAYERS

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ABSTRACT

This study examines the Determinants of Personal Income Tax Compliance. The study anchors on the fiscal exchange theory and social & psychological theory to predict the determinants of personal income tax compliance. The survey research design was adopted and questionnaire was distributed to elicit responses from self-employed persons. The ordered logistic regression was used to analyse the data gathered and was done electronically using the SPSS and Eviews 7 software. The findings show that there is a significant positive relationship between tax rate and personal income tax compliance; the perception of taxpayers' of the Government of the day has a significant impact on how they comply with personal income taxation; taxpayers' income has a significant impact on personal income tax compliance; the gender of the taxpayer has no significant positive relationship with his/her level of tax compliance; and the attitude of taxpayers to the tax system has a significant impact on personal income tax compliance. The study therefore concludes that the psychological aspects of taxpayers such as taxpayers' perception and attitude have a more fundamental impact on personal income tax compliance than deterrent tax measures. Based on these, the study recommends amongst others that deterrent tax measures such as fines and penalties should incorporate the psychological aspect of taxpayers. That is, tax administrators should know when and how to combine strict deterrent measures with persuasive measures (education).

JEL classification: M4, M49

Keywords: Tax compliance; Fiscal exchange theory; Social & psychological theory;

INTRODUCTION

Government over the world require funds to finance its policies and objectives. It requires sufficient resources to finance and carry out its functions and duties and one of the ways it can achieve these is through the imposition of taxes on its citizens. Taxes form the major source of revenue to the government in most countries, especially those that are developed (Alabede, 2001). Taxation can be seen as the act by government authorities in imposing a levy on the income, profit, or wealth of individuals, partnerships, and corporate organizations. According to Ola (2001), tax is a compulsory payment made by citizenry upon demand by the government. It serves as a means of pooling resources needed for the operationalization of government policies and developmental agendas. Nightingale (2001) opines that taxes are compulsory levies by government for which taxpayers may or may not receive any returns directly proportionate to the amount paid nevertheless; they enjoy the benefits for which the money may be put to use in the society. Eiya (2012) asserts that the imposition of taxes by the government is premised primarily on revenue generation and economic stability. In the words of the researcher, taxes are levies imposed on personal income, business profit, interest, dividend, and discount, or royalties for the purpose of raising revenue.

According to the Chartered Institute of Taxation of Nigeria (CITN, 2010), Kiabel and Nwokah (2009) and Nzotta (2007) the proportion of personal income taxes to the Nigerian government's total revenue has been appalling and on the decline and one of the reasons for this has been attributed to poor tax compliance. Modugu, Eragbhe and Izedonmi (2012) assert that this poor tax compliance behaviour has been captured in literature as the "compliance puzzle" and is a challenging phenomenon experienced across countries, especially the less developed economies.

Tax compliance has become a great concern to both developed and developing countries worldwide (Alabede, Ariffin & Idris, 2011b; Igbeng, Tapang & Usang, 2012; Torgler, 2003). This compliance issue may be seen from the time taken by taxpayers to even comply with taxes, or the actual amount collected as taxes when compared to the budgeted. For example, the 2012 report by Price Water House Cooper's (PwC) "Ease of Paying Taxes Ranking" indicates that Nigeria ranked 138 out of 183 economies that have relative ease in tax payment. This same report recorded that the average tax compliance time in Nigeria is 936 hours as against a 318 hour benchmark for Sub-Saharan Africa and 186 hours for the Organization for Economic Cooperation and Development (OECD) countries. Also, using Edo State as case study, the ratio of internally generated revenue (of which personal income tax is a component) to the total annual budgetary estimates has been experiencing a steady fall from 30.2% in 2009 down to 29% in 2010 and further down to 24% in 2011. All these underscore that compliance in Nigeria is indeed an issue. Alabede et al (2011b) further claim that the incidence of poor compliance can be deduced from the number of tax cases audited and investigated. According to the Federal Inland Revenue Service [FIRS] (2009), about 680 tax cases relating to both domestic and foreign audited and investigated companies in 2008 resulted into ₦94.68 billion revenue to the government. This goes a long way in showing the effect of poor compliance on the revenue generation profile of the government. This is further buttressed by Torgler (2003), who argues that there is a limit on the ability of the government to raise revenue for developmental purposes because of the low compliance syndrome.

Kiabel and Nwokah (2009) use the adjectives "most disappointing", "non-performing", and "unsatisfactory" in describing personal income taxation in Nigeria. Therefore, if the associated problems of poor tax compliance and non-compliance ranging from revenue losses, government inefficiency to carry out its functions and responsibilities, to citizens' disrespect for the tax laws which may undermine the legitimacy and authority of government, must be addressed, then efforts must be intensified to understand the factors that determine tax compliance.

Early research studies on this phenomenon view the problem from the theoretical perspective of deterrence models (Hartner, Rechberger, Kirchler, & Schabmann, 2008; Riahi-Belkaou, 2004). Allingham and Sandmo (1972) are among the first to empirically investigate the factors that prompt tax compliance. In their opinion, taxpayers can be viewed as rational beings with a high level of self-interest. Hence, they need to be forced to ensure compliance. Their research effort led to the development of the traditional classic theory of tax compliance widely known as the A-S model. According to Sandmo (2005), this theory assumes that the taxpayer maximizes the expected utilities of not complying to tax by balancing the benefits derived from successful tax evasion or avoidance against the risk of been caught and sanctioned. In summation, the theory concludes that tax compliance largely depends on deterrent tax measures such as tax audits, fines, and penalties.

Tax audits, fines and penalties are measures put in place by the relevant tax authorities to mitigate tax non-compliance. In Nigeria, failure to comply with the provisions of the personal income tax can lead to levying of fines and penalties. Specifically, failure to comply attracts N50000 for every month of default plus interest at commercial rate. However, according to Okoye, Akenbor and Obara (2012:47), "the various penalties specified for non-compliance are not strictly pursued. Offenders are hardly prosecuted, and this goes on to worsen the situation". This is to say that the use of tax audits, fines and penalties have not be able to address the issue of tax compliance in Nigeria or better still, tax audits, fines and penalties are seen as "toothless bulldogs" that have not efficiently tamed tax non-compliance. Little wonder other theories have emerged such as the fiscal exchange theory, social influence theory, and comparative treatment theory that have all pointed to the fact that the determinants of tax compliance goes beyond just the use of deterrent tax measures to include analysis of the social and psychological aspect of the taxpayers (Fjeldstad, Schulz-Herzenberg & Sjursen, 2012). All these point that the factors responsible for tax compliance may be viewed from other angles such as economic, psychological, and social makeup of taxpayers and not just deterrence.

Therefore, this study seeks to examine the determinants of personal income tax compliance with emphasis on taxpayers' attributes and not just deterrent tax measures. The specific objectives include to:

1. investigate how taxpayers' perception of the government affect Personal Income Tax (PIT) compliance;
2. determine the effect that taxpayers' gender has on Personal Income Tax (PIT) compliance;
3. evaluate how taxpayers' attitude to the tax system affect Personal Income Tax (PIT) compliance;
4. examine the relationship between tax rate and Personal Income Tax (PIT) compliance; and
5. determine the extent to which the income of taxpayers affect Personal Income Tax (PIT) compliance.

To achieve the above objectives, the following hypotheses have been raised:

$H_0$1: Taxpayers' perception of the government is not a significantly determinant of Personal Income Tax (PIT) compliance

$H_0$2: Taxpayers' gender is not a significantly determinant of Personal Income Tax (PIT) compliance

$H_0$3: Taxpayers' attitude is not a significantly determinant of Personal Income Tax (PIT) compliance

$H_0$4: Tax rate is not a significantly determinant of Personal Income Tax (PIT) compliance.

$H_0$5: The income of taxpayers is not a significantly determinant of Personal Income Tax (PIT) compliance

LITERATURE REVIEW

Fiscal Exchange Theory

This theory advocates that the presence of government's judicious use of tax monies may motivate compliance and also cause an increase in compliance if public goods, which citizens prefer, are made available (Moore, 2004). The main thrust of this theory is that compliance will be motivated when citizens get returns for the taxes paid in terms of public goods and social amenities (Fjeldstad et al, 2012). That is, taxpayers will be obliged to pay taxes because they appreciate the efforts by the government to provide public goods and recognize that this is made possible because of the contribution they make in terms of taxes (Fjeldstad & Semboja, 2001). Deduction from this theory brings to light the fact that compliance has nothing to do with coercion and everything to do with government's accountability and effective service provision and delivery as well as the level of satisfaction or lack of satisfaction of taxpayers with the actions of the government. Nevertheless, critics of this theory argue that its assumptions are unnecessarily simple and that in reality; behavioural factors tend to have a huge impact on compliance and not just the fiscal exchange and relationship between taxpayers and tax authorities (D'Arcy, 2011).

Social and Psychological Theory

This theory can be seen as an aggregation of three dimensions (Fjeldstad et al, 2012). One dimension sees compliance as being affected by the behaviour and social norms of the taxpayer's environment. That is, the level of social interaction of the taxpayer with relatives, friends, and peer groups influences his decision to be compliant (Fjeldstad et al, 2012). Thus, according to them, if a taxpayer interacts with a social group that delights in evading taxes, he is likely to follow suit and also evade tax.

The second dimension is called the comparative treatment. This dimension focuses on the concept of equity. Its thrust is that reduction in the perceived equity gap will cause an improvement in compliance (McKerchar & Evans, 2009). Advocates of this theory assert that taxpayers will always compare themselves hence, if a taxpayer perceives that the government treats some group better than others, then such taxpayer is likely to be non-compliant (D'Arcy 2011). According to Fjeldstad et al (2012), the determinant here is not the absolute fiscal exchange between the taxpayer and the government rather, it is the relative fiscal exchange involving the taxpayer, the government, and other taxpayers.

The last dimension is political in nature. It is referred to as political legitimacy. According to its advocators, tax compliance is influenced by the extent of trust that taxpayers have for the government of the day (Kirchler, Hoelzl & Wahl, 2008; Tayler, 2006). According to Fjeldstad et al (2012: 7), "legitimacy could be described as belief or trust in the authorities, institutions, and social arrangements to be appropriate, proper, just and work for the common good". That is, legitimacy is seen in light of trust, equity, justice, and fairness. Torgler and Schneider (2007) in their study noted that the higher the legitimacy attributed to tax authorities and government, the higher the level of tax compliance. Furthermore, Persson (2008) argues that African countries that have an objective of nation building over ethnic identity have been more successful in achieving tax compliance than those who opt for ethnic identity.

Taxation in Nigeria has been in operation long before colonial rule (Anyaduba, 1999). According to Abdulrazaq (1993), rudimentary forms of taxation, has been in existence even in the various regions that make up the now state of Nigeria. However, in 1862, the creation of the Colony of Lagos lead to the introduction of the English law, which further paved way in 1904 for direct taxation as we have it today (Abdulrasaq, 1993; Igbeng et al, 2012). According to Anyaduba (1999), the first real attempt at direct taxation in Nigeria was in 1904 when the then Governor-General, Sir Fredrick Lugard introduced the Land Revenue Proclamation No. 4. This Proclamation was however, consolidated, and heightened in 1906 with the introduction of the Native Revenue Proclamation No.2. These enactments were followed later by other legislations in the Eastern and Western parts of the country, which the Colonial masters introduced during their various regimes.

In 1917, the Native Revenue Ordinance was enacted. It applied to Abeokuta in Ogun State and Benin in Edo State. However, an amendment to this ordinance was made that extended its provisions firstly, in Southern Nigeria around 1918 and secondly, in Eastern Nigeria in 1928 (Abdulrazaq, 1993). The Native Revenue Ordinance of 1917, 1918, and 1928 were later incorporated to have the Direct Taxation Ordinance No 4 of 1940 cap 54. The direct taxation ordinance had a weakness in that it exempted the Europeans in the other regions from paying taxes while those residing in Lagos were taxed. This weakness according to Ola (2001) led to the creation of Raisman Fiscal Commission of 1958 that recommended the introduction of basic principles for taxing incomes throughout Nigeria. This recommendation formed the basis of the Income Tax Management Act of 1961 (Ola, 1981).

It must however be noted that for the Nigerian tax system to have a solid base, an existing tax structure was required. In the North, this structure was already in existence hence, it was easy to kick-start the initiation. This was not the case in the East. The initial attempt in 1928 to codify and initiate direct taxation after the enactment of the Native Revenue Ordinance met with resistance. The resistance resulted in the “Aba Women Riot” of 1929, which was a consequence of the imposition of taxation on the Ibo women.

From the foregoing, it can be said that the present day legislation on tax in Nigeria can be attributed to the Direct Taxation Ordinance of 1940 and the Income Tax Ordinance of 1940 and 1943 (Anyaduba, 1999). In all, the Federal Government of Nigeria enacted three other tax laws shortly after independence viz:

I Personal Income Tax Act (Lagos) 1961

II Income Tax Management Act 1961

III Companies Income Tax Act 1961

These enactments form the bedrock of modern taxation in Nigeria. The Income Tax Management Act (ITMA) 1961 served as a model for all the Personal Income Tax laws operational in other regions aside the Crown Colony. However, in 1993, by reason of the Decrees 104, the Personal Income Tax Act 1993 repealed the Income Tax Management Act (ITMA) 1961 thereby becoming the tax law regulating personal income taxation in Nigeria. Presently, the law regulating personal income taxation in Nigeria is the Personal Income Tax (Amendment) Act No. 20 of 2011, which is an amendment to the Personal Income Tax Act of 2004. It became operational on 14th June, 2011 (Personal Income Tax (Amendment) Act, 2011).

Concept of Personal Income Tax Compliance

Personal Income Tax (PIT) can be defined as a tax that is imposed on the income of “persons”, that is, an individual who is either in paid employment or self-employed. According to Eiya (2012), personal income tax can be viewed as a compulsory levy paid by individuals that are self-employed or in gainful employment in either public or private organizations to the government. He asserts that the levy is imposed on the taxable income and not the statutory income.

The current law guiding the taxation of personal incomes is the Personal Income Tax (Amendment) Act 2011. According to Igbeng et al (2012), under this Act, the Federal and States’ tax boards are empowered to identify persons residing or earning income from Nigeria who are required to pay tax, assess their incomes and subject the taxable portion to tax in line with specific guidelines and rules as laid down. The two forms wherein personal income tax is administered under the Act are the Pay-As-You-Earn (PAYE) form and the self-employed persons form. To make payments, taxable individuals are required to file the returns of statutory income earned with the relevant tax authority where he is resident in the prescribed form from which he will be assessed [government assessment] or the individual carries out the assessment on himself taking cognizance of his reliefs, compute the amount expected to be paid as tax based on the current rate, and goes ahead to make payments [self-assessment] (Anyaduba, 1999; Igbeng et al, 2012). When the taxpayer has done this, tax compliance may be said to have occurred but in reality, this isn't so. Researchers have argued and we tow the same line of thought that compliance isn't just about filing returns and paying, rather it is about filing the right returns and paying the right amount as tax, that is, honest disclosure and accurate payment of the right amount.

Alabede, Ariffin and Idris (2011c) opine that the payment of tax by citizenry is an obligatory duty as such; citizens are expected to voluntarily comply. However, Alm and Schneider (2003) have acknowledged that most citizens do not like to pay taxes thus creating a critical issue of tax non-compliance. Verboon and Dijke (2007) explain that tax compliance is a matter of will. They describe tax compliance as willingness on the part of taxpayers to comply with relevant tax laws and authorities by paying the right amount of taxes. Sanni (2012) argues that tax compliance is required in both ways by taxpayers and tax authorities although it has been regularly viewed as obedience to the provisions of the tax laws by the taxpayer. He opines that tax non-compliance will normally arise when taxes are imposed and administered arbitrarily without recourse to set rules or standards and not just when taxpayers fail to make returns or pay taxes due. According to Kircher (2008) tax compliance generally refers to the ability of a taxpayer to submit correct, complete, and acceptable returns in agreement with tax laws and regulations requiring such to the relevant tax authority for the purpose of being assessed to tax. In his opinion, tax compliance is viewed from the angle of the taxpayer. James, Murphy and Reinhart (2005) opine that tax compliance may be seen in light of two concepts viz: tax avoidance and tax evasion. While the latter refers to an illegal way of tax reduction, the former is a legal way of tax reduction. In their defence, they argue that compliance might be better explained as obedience to the "spirit and letter" of tax laws. Similarly, the Organization for Economic Cooperation and Development [OECD] (2001) also broke compliance into administrative compliance and technical compliance. To them, administrative compliance involves conformity with the administrative rules of tax filing and payment while technical compliance deals with complying with the technicalities involved in the tax system. Furthermore, Brown and Mazur (2003) tow the same line of reasoning and pointed out that tax compliance is indeed multi-faceted, and should be considered in light of three distinct forms of compliance viz: payment compliance, filing compliance and reporting compliance. They defined payment compliance as the timely payment of tax levies, filing compliance as the timely and accurate submission of information and any required returns, and reporting compliance as correctly depositing the true amount of income and tax liability. Similarly, McBarnett (2003) in his study identifies three forms of compliance, which he describes as committed compliance, capitulative compliance, and creative compliance. He defines committed compliance as willingness on the part of taxpayers to carry tax obligations without complaint; capitulative compliance as the discharge of tax obligations occasioned by force; and creative compliance as any act by taxpayer to employ loopholes in the tax system to reduce taxes due by income smoothening and deductible expenditures.

In the opinion of the researcher, having examined some of the definitions as put forward by other researchers, we would describe personal income tax compliance as total obedience both wilful and forced, to personal income tax laws and regulations by both taxpayers and tax authorities. Our justification for this stems from the fact that the tax system is a tripartite arrangement involving tax policies, tax laws, and tax administration. The first two serve as guide for tax administration hence, whenever tax administration is purportedly done in discordance to tax policies and tax laws, non-compliance is arguable to be present irrespective of which group (tax authority or taxpayer) is the guilty party.

Empirical studies on Determinants of Personal income tax compliance

This section harps on empirical studies on personal income tax compliance. To allow for better presentation, quick grasp and to further engender novelty, the review is presented chronologically.

Mughal and Akram (2002) using data primarily derived from responses to a likert scale questionnaire distributed in Pakistan, tried to investigate the reasons for tax avoidance and evasion. Factor analysis, central limit theorem and correlation analysis were employed in their investigation. Of the 10 reasons investigated, they discovered that the top 5 reasons for tax evasion and avoidance are lack of public enlightenment programmes, inadequate tax incentives, poor interaction and relationship between tax-payers and tax authorities, tax illiteracy, and multiplicity of taxes. The study shows that factors responsible for tax avoidance, evasion and ultimately non-compliance vary between tax system features and taxpayers characteristics. These findings were based in Pakistan which is a developing country just like Nigeria. However, the country has lots of differences with Nigeria thus, the findings might not be applicable here except if the study is replicated.

Riahi-Belkaoui (2004) examined the relationship between tax compliance and determinants of tax morale across different nations. A total of 30 countries were sampled. Tax compliance was regressed against variables such as the level of economic freedom, level of importance attached to equity market, effectiveness of competition laws and high moral norms. The findings indicate that all variables examined have significant relationship with tax compliance. Specifically, the economic level of freedom, the level of importance attached to equity market and the effectiveness of competition laws and high moral norms have positive impact on tax compliance. Theoretically, the study shows that a contingency theory and not a single theory best explains tax compliance. The study is indeed a study with reliable conclusion. However, Nigeria was not a part of the countries examined probably because of the unavailability of data. Furthermore, most of the countries examined were mainly Asian and European countries. No African country was investigated.

Kasipillai and Jabbar (2006) carried out a study that examined gender and ethnicity differences in tax compliance. The study was carried out in Malaysia using interviews for 156 individuals. T-test and a multivariate regression analysis was also employed. Findings reveal that the attitude towards compliance in Malaysia is moderately high. However, gender and ethnicity did not have a significant difference with respect to tax compliance. Critically looking at this study, one will observe that the study focused on just social aspect also (gender and race) leaving out other areas opined by other researchers to have significant effect on tax compliance. Furthermore, tax compliance was captured using hypothetical scenarios which is most likely different from what taxpayers will do actually or in reality.

In their study, Palil and Mustapha (2011) tried to determine the evolution and concept of tax compliance in Asia and Europe. The study was a meta-analysis of extant literature. Purely conceptual in nature. They found that personal tax compliance was dwindling in India. They opine that tax compliance may be improved if the tax authorities focus on the characteristics of taxpayers, ensure effective tax audit and reviews, initiate stringent penalties for non-compliance and build good relationships and interaction with taxpayers. A critical analysis reveal that this study looked at different compliance indices used to capture compliance before making a conclusion. Thus having a better result because of the meta-analysis approach. Replicating a study like this using Nigerian compliance index will indeed contribute to knowledge also.

Alabede, Ariffin and Idris (2011a) who conducted a study to determine the relationship between the perception of taxpayers of public governance quality and tax compliance as well as the moderating effect of financial condition and risk. They adopted the survey research design. 550 copies of questionnaire were distributed to residents in Abuja. Factor analysis and multiviate regression were employed for the analysis. The study found that income tax in Nigeria has low compliance level and that a significant positive relationship exist between public governance quality and tax compliance. It was also discovered that risk negatively moderate and reduces the expected relationship between public governance quality and tax compliance. However, it must be stated that the study measured compliance using self-reported behavior of the taxpayers. However, this behavior may not represent actual behavior and show what the taxpayer will do in reality. Notwithstanding the above, the study contributes to knowledge by expanding the basic compliance model to include financial and risk preferences.

In Alabede, Ariffin and Idris (2011b), the authors looked at the effect of ethnicity on individual taxpayers' compliance in Nigeria. Multiviate regression was employed for the analysis of the data gathered primarily for the study. The study found that ethnicity and culture are determinants of taxpayer's compliance in Nigeria. Specifically, they found a significant difference exist in compliance behaviour of taxpayers from different ethnic groups while there is an insignificant difference in compliance behaviour of taxpayers from different religious background. We however observed in this study that the R square value from the study was approximately 27% showing that majority of the determinants that affect tax compliance was not captured by the model. This is however as expected since the study focused on just social aspect (religion and race).

Similarly, in Alabede, Ariffin and Idris (2011d), the authors were interested in finding out the determinant of tax compliance behavior using a proposed model. The proposed model is an extension of Fischer's model of compliance. Though conceptually in nature, it contributes to Fischer's model by including variables that show the perceived tax service quality, public governance quality, ethnic diversity as well as moderating effect of taxpayer's financial condition and risk preference. Aside this innovation, that is, proposing a model though the model is yet to be subjected to empirical analysis. The variables examined cover almost all aspect that may affect compliance ranging from the economic, political, social, psychological, cultural, and environmental peculiarities and characteristic of both the tax system and taxpayer.

Barbuta-Misu (2011) conceptually reviewed the factors that affect tax compliance as suggested in extant literature and also propose a model to suit Romania's peculiarity. According to the study, the most important determinants of tax compliance are broadly grouped into economic and non-economic factors. The economic factors are the level of income, audit probabilities, tax audit, tax rate, tax benefits, penalties, fines. While the non-economic are attitudes toward taxes, personal, social and national norms, perceived fairness. Trying to summary this study, we found that this study has the same advantages as the above study. Specifically, the study proposed a model though the model is yet to be subjected to empirical analysis and the variables proposed as the determinants also cover a broad spectrum of both the tax system and taxpayers characteristics.

Sanni (2012) is an example of a desk based and conceptual research to examine the issue of multiplicity of taxes in Nigeria. It was discovered that the issue of multiplicity of taxes is not new, the problem has persisted because all efforts at curbing it has just been from the JTB without cooperation of state governments. Secondly, inadequate funding of various departments and agencies by all tiers of government has also contributed. Furthermore, the negative impact of tax multiplicity on tax compliance is heightened by the poor tax culture. This is an indigenous study and thus contributes to evidence gathered in Nigeria. However, the study was purely conceptual in nature and therefore lacks empirical backing which is an acid test for reliable and scientific inquiry.

Badara (2012) examined the effect of Tax audit on tax compliance in Nigeria using the Bauchi State Board of Internal Revenue as case study. Data was sourced primarily from 48 copies of questionnaire distributed. Simple percentages was employed in the analysis. The findings show that though tax audit may be used to ensure compliance, it is not effective because of the inadequate number and experience of tax personnel used, the negative attitude of tax payers to tax officials, poor sanctions for non-compliant taxpayers and the poor tax knowledge of taxpayers. As a research, it contributes to the knowledge on tax audit vis-a –vis tax compliance. However, the sample size is grossly small. The situation in Bauchi cannot be generalizable to the entirety of Nigeria due to cultural and state specific characteristics. Furthermore, the methodology is too pedestrian to allow for a fundamental and reliable conclusion.

Micah, Ebere and Umobong (2012) who are indigenous researchers, focused on exploring the challenges and way forward for the Nigerian tax system. It was purely conceptual and explorative in nature. The study revealed that the Nigerian tax system is flawed with poor database management, inefficient tax administration, inability to prioritize tax effort, proliferation of taxes amongst others. Furthermore, the study provides insight to the true nature of the tax system in Nigeria. Though exploratory, it provides background information and foundation for subsequent empirical researches on the Nigerian tax system.

Another indigenous study is Modugu, Eragbhe and Izedonmi (2012). A Nigerian based study on the level of Government accountability and voluntary tax compliance. It looked at compliance based on the theoretical framework of fiscal exchange theory. The survey research design was employed and copies of questionnaire were distributed to 600 respondents randomly selected from the 6 geo-political zones. The Z-test statistics was the analysis test. The findings indicate that voluntary tax compliance is largely influenced by the perception of taxpayers of government accountability. Specifically, it finds that how taxpayers perceive tax fairness and equity, treatment and exchange between them and tax authorities, ruling political party, government performance and others affect compliance. Also, this indigenous study focused on just voluntary compliance leaving out the area of enforced compliance. Thus it didn’t subscribe to deterrent tax measures or theory.

Still yet, another indigenous study is that of Igbeng, Tapang and Usang (2012). The focus of this study was to analyze the effect and relationship between tax morale and tax compliance using evidence gathered in Nigeria. Cross sectional survey of 6 organizations was done. About 400 copies of questionnaire were distributed to elicit responses. This was then converted and used in a multivariate analysis. Six independent variables were regressed against tax morale. They are social norms, taxpayer attitude towards Government, taxpayer attitude towards tax evasion, towards tax avoidance, towards legal system, and obedience to traditional institution. The findings reveal that social norms, attitude towards tax evasion and avoidance are significant predictor variables on tax morale. The study contributes to the attitudinal aspect of tax compliance since a cursory analysis of the variables show that they are all attitudinal variables as such, the study focused on just social/ psychological theory on compliance leaving others out. Thus, incorporating variables of deterrence theory, and fiscal exchange theory will make the study more robust.

Fjeldstad, Schulz-Herzenberg and Sjursen (2012), is a working paper series on people's view of taxation in Africa with specific focus on the determinants of tax compliance. It employed a survey design and sampled 9 African countries (excluding Nigeria). It utilized a meta-analysis approach. The study revealed that a more systematic and coherent information on taxpayer attitudes and behavior is sinequanon to more informed tax policy design in Africa and that a proper understanding of how taxpayers behave may provide the needful diagnosis of the problems of African tax system. It must be noted that the study has a robust theoretical framework that consists of all major theories on tax compliance. It also provides an excellent foundation for future researches.

Ebimobowei and Peter (2013) in their study had a broad objective to determine the impact and relationship between tax audit and tax compliance. Data was gotten via questionnaire distribution to 360 respondents while an OLS regression was used to determine the relationship between the examined variables. To properly examine the subject matter, three types of tax audit were regressed against tax compliance. They found that random tax audit, cutoff tax audit and conditional tax audit have significant positive impact on tax compliance. The study contributes to the indigenous research on tax compliance. Specifically it focused on just a deterrent tax model as against a contingency theoretical framework. Furthermore, the R square value from the study was approximately 10% showing that majority of the determinants that affect tax compliance was not captured by the model. Thus we suggest including variables of attitude, social, psychological, and fiscal exchange theory will allow for a more robust finding.

METHODS AND DATA

Research Design and Sampling

The survey research design is adopted as the blue print to chart the course of this study. This design was adopted as it provides the advantage of effectively gathering primary information from a large number of samples. Furthermore, the justification for its use spans from the methodology adopted by prior indigenous researchers such as Akintoye and Tashie (2013) and Ebimobowei and Peter (2013) who examined similar subject matters relating to tax compliance.

The population for this study is made up of all self-employed persons, from 18 years and above in the South-South region of Nigeria. The minimum age of 18 years was chosen as that is the legal age for adulthood in Nigeria (Company and Allied Matters Act, CAMA 2004). The

National Bureau of Statistics asserts that the unemployment rate in Nigeria is about 23.9%. This rate was computed based on the number of persons within the labour bracket. That is, percentage of labour force. Thus, it might be safe to infer that the percentage of employed persons within the labour force is 76.1% (100-23.9%). Furthermore, statistics reveal that the household distribution of employed persons in this region is about 6,124,540 (NBS, 2010). If this is the case, then our population for this study is approximately 4.66 million. Since it is nearly impossible to reach the entire population, the Yaro Yamani formula for determining the sample size was applied and this resulted in a sample size of 400. For the purpose of picking our sample, a combination of convenience sampling technique and the simple random sampling technique was employed.

The research instrument used is a structured Likert scale questionnaire consisting of two (2) sections. The questions in section A relate to the demographic factors of the respondents while section B deals with the core matters. Section B is divided into subsections each relating to the independent and dependent variables. Some of the questions asked were adapted from the works of prior indigenous researchers such as Badara (2012), Modugu et al (2012), Torgler (2003b) etc. while others were self-constructed. The questionnaire has a likert scale response of strongly agree, agree, undecided, disagree and strongly disagree with each of them been coded as 5,4,3,2, and 1 respectively.

Finally, one of the problems of primary data is the issue of validity and the extent of reliability that can be placed on the research instrument. Thus, to check this weakness and ensure the robustness of our findings, the Cronbach Alpha was used to measure the internal consistence of measurement scales and reliability of research instrument. The Cronbach Alpha coefficient of scale stipulates a standard of above 0.60 for acceptability.

Model specification

This study adapted the model by Ebimobowei and Peter (2013) by incorporating elements of economic deterrence and social/psychological variables that may also affect tax compliance. Consequently, the model specification for this study is:

$$PTC = \beta 0 + \beta 1TPP + \beta 2TPG + \beta 3TPA + \beta 4TR + \beta 5TPI + U \text{..........} \quad Eq1$$

Where:

PTC = Personal Income Tax Compliance

TPP = Taxpayers' Perception of Government

TPG = Taxpayers' Gender

TPA = Taxpayers' Attitude to the tax system

TR = Tax Rate

TPI = Taxpayer Income

$\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$ = Coefficients

U = Error Term

Aprior Expectation = $\beta 1, \beta 2, \beta 3, \beta 4 > 0, \beta 4 < 0$

The model itself was analysed using the ordered logistic regression. The choice of this regression method is based on the ordered nature of the dependent variable (tax compliance). The data analysis was done electronically via the use of SPSS 16 and Eviews 7.0 software.

Data Presentation and Analysis

Table 1: Reliability Test: Cronbach Alpha Test

Variable	Items (Questions Used)	Cronbach Alpha
Personal Income Tax Compliance	5 (Q5,Q6,Q7,Q8,Q9)	0.765
Tax Rate	3 (Q15,Q16,Q17)	0.715
Taxpayers' Perception of Government	3 (Q19,Q21,Q22)	0.581
Taxpayers' Income	3 (Q23,Q24,Q25)	0.756
Taxpayers' Attitude to Tax System	4 (Q27,Q28,Q29,Q30)	0.676

Source: SPSS 16 Extract

A critical look at table 1 reveals the extent of internal consistency of the scales and questions put forward to respondents. On the average, the cronbach alphas fall within approximately 60% and 77% and according to the George and Mallery (2003), this suggest the acceptability of the research instrument since the alphas are greater than the 60% rule of thumb for acceptability of research instrument.

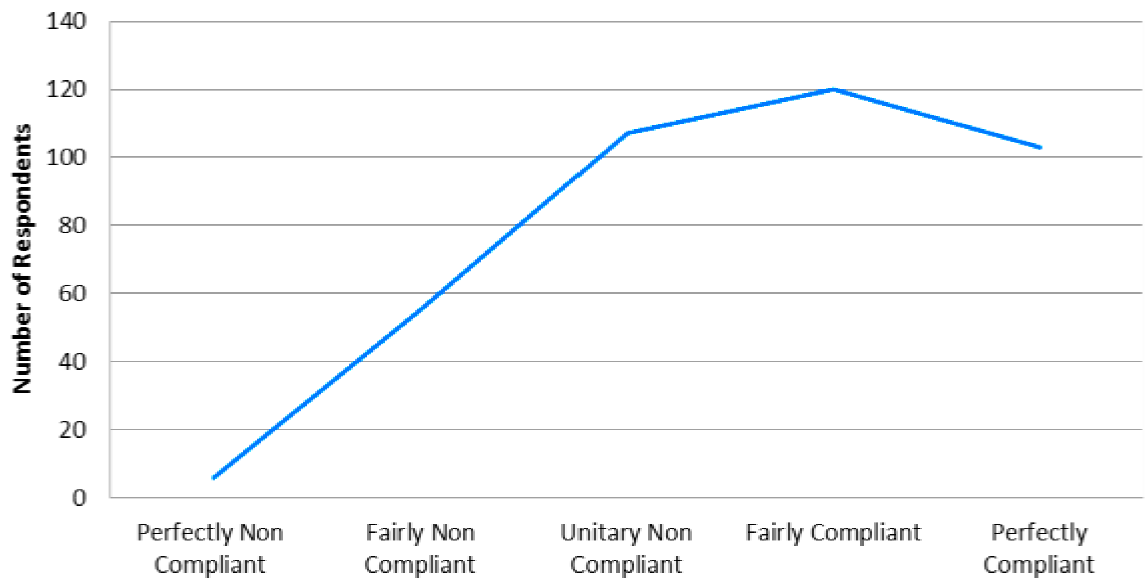

Figure 1: Tax Compliance Continuum
Source: Author's Fieldwork (2014)

The tax compliance continuum above is a line chart showing the tax compliance continuum of respondents. From the chart, it can be deduced that majority of respondents, based on the analysis of the answers provided in the questionnaire are fairly compliant. In simple terms, most of the respondents had an average score of approximately 4 in the tax compliance section of the questionnaire. Using this as a yardstick, it may be inferred that complaince to personal income taxation is fair.

Table 2: Regression Output

Dependent Variable: PTC

Method: ML - Ordered Probit (Quadratic hill climbing)

Variable	Coefficient	Std. Error	z-Statistic	Prob.
TR	0.424743	0.074975	5.665111	0.0000
TPP	0.197157	0.112748	1.748642	0.0804
TPI	0.741270	0.084397	8.783179	0.0000
TPG	0.078361	0.115525	0.678309	0.4976
TPA	-0.242788	0.107798	-2.252253	0.0243
Limit Points				
LIMIT_2:C(6)	1.061821	0.564364	1.881448	0.0599
LIMIT_3:C(7)	2.507401	0.562142	4.460439	0.0000
LIMIT_4:C(8)	3.813498	0.570995	6.678692	0.0000
LIMIT_5:C(9)	5.026955	0.589324	8.530038	0.0000

Pseudo R-squared	0.234599	Akaike info criterion	2.211681
Schwarz criterion	2.305928	Log likelihood	-405.6903
Hannan-Quinn criter.	2.249098	Restr. log likelihood	-530.0362
LR statistic	248.6918	Avg. log likelihood	-1.081841
Prob(LR statistic)	0.000000		

Eviews 7.0 output

The R-squared of approximately 0.24 in the table 2 above suggests that all the independent variables (TR, TPP, TPI, TPG, and TPA) jointly account for about 24% of the systematic variations in the dependent variable (PTC). It also indicates that about 76% of this variation is captured by variables not represented in the model. The LR statistics of 251.3861 and associated probability of 0.0000 makes known the sound explanatory power of the model. This statistics indicates that the overall model is significant in explaining the dependent variable since the associated probability is lower than 0.05. It also suggest that the relationship between the dependent variable and independent variables is linear.

Based on the signs of the individual Z-statistics, it is observed that TR (5.66), TPP (1.74), TPI (8.78) and TPG (0.67) all move in the same direction as PTC while TPA (-2.25) moves in opposite direction as PTC. In other words, all the independent variables examined have a positive association with PTC except for TPA.

Lastly, drawing inference from the probability values of the individual Z-statistics, we can safely conclude that TR (0.0000), TPI (0.0000), and TPA (0.02) all have a significant impact on PTC at 5% significance level. However, TPG (0.497) and TPP (0.08), have an insignificant impact on PTC at the same 5% significance level.

TEST OF HYPOTHESES AND DISCUSSIONS

The Z-ratios from the regression results were used to test the hypotheses. The study adopted the 5% level of significance in determining the acceptability or otherwise of the hypotheses. Where the probability value is lower than 5%, the null hypotheses are not accepted.

$H_0 1$: Taxpayers' perception of the government is not a significant determinant of Personal

Income Tax (PIT) compliance. The probability value of the Z-statistics of TPP is 0.08. Thus, it is conclusive that the null hypothesis should not be accepted at 5% significance level but can be accepted at 10% significance level. Therefore, taxpayers' perception of the Government has a significant effect on personal income tax compliance. This finding supports the findings of Modugu et al (2012) and Uadiale et al (2010). The finding on taxpayers' perception of the Government is as expected and logical. It shows that the Government has an integrity image and what taxpayers make of that image is a fundamental factor when considering tax compliance. In other words, taxpayers assessment of the government in terms of accountability, probity, proper management, transparency and others virtues equals the level of compliance that should be expected.

$H_0$2: Taxpayers' gender is not a significant determinant of Personal Income Tax (PIT) compliance. As regarding the second hypothesis, the probability value of the Z-statistics of TPG is 0.497. Thus, the study accepts the null hypothesis at 5% significance level. Therefore, there is no significant positive relationship between taxpayers' gender and personal income tax compliance. This is quite contrary to the findings of Kasipillai and Jabbar (2006). They discovered in their study that gender has a significant impact on tax compliance. This study unlike others does not see gender as an important determinant of tax compliance. Reason for this might be that both female and male taxpayers do not see themselves as different when it comes to the issue of taxes since the tax regimes do not discriminate or show favouritism to any of the sexes.

$H_0$3: Taxpayers' attitude is not a significant determinant of Personal Income Tax (PIT) compliance. The alternate hypothesis three is accepted while the null hypothesis is rejected at 5% significance level since the probability value of the z-statistics of TPA (0.02). Therefore, taxpayers' attitude has a significant impact on personal income tax compliance. This finding is so revealing. It tells us that irrespective of the efforts put in by the government to encourage tax compliance; individual taxpayers have their part to also play. It also show that the environment, culture, behaviour, background, peer influences, which helps to shape an individuals' attitude cannot be downplayed if compliance must be achieved. Furthermore, this buttresses the fact that deterrence that does not consider the psychological perspective of taxpayers cannot achieve an enviable level of compliance from taxpayers.

$H_0$4: Tax rate is not a significant determinant of Personal Income Tax (PIT) compliance. The fourth null hypothesis which is based on the relationship between tax rate and personal income tax is rejected since the probability value of the z-statistic of TR is 0.0000. In other words, there is a significant positive relationship between tax rate and personal income tax compliance. The finding therefrom seems to agree with Allingham and Sandmo (1972), but negates that of Barbuta-Misu (2011). This finding tends to negate most a-prior expectations. One reason for this might be attributed to the nature and esteem attached to tax administrators. When taxpayers develop a positive affinity for tax administrators (likely because of proper fund management and utilization), they are likely to comply when there is increase in tax rate because they have or receive value for the taxes paid.

$H_0$5: The income of taxpayers is not a significant determinant of Personal Income Tax (PIT) compliance. In the case of the last hypothesis, the null is also rejected while the alternate hypothesis is accepted at 5% significance level. Conclusively, the income of taxpayers has a significant impact on personal income tax compliance. This finding aligns with rationality. When taxpayers have more income, they can afford to meet all financial obligations (payment of tax inclusive) ceteris paribus.

CONCLUSION AND RECOMMENDATIONS

This study sought to examine the Determinants of Personal Income Tax Compliance. In the course of the empirical analysis, it was discovered that there is a significant positive relationship between tax rate and personal income tax compliance; the perception of taxpayers' of the Government of the day has a significant impact on how they comply with personal income taxation; taxpayers' income has a significant impact on personal income tax compliance; the gender of the taxpayer has no significant positive relationship with his/her compliance; and the attitude of taxpayers to the tax system has a significant impact on personal income tax compliance. The study also finds that both deterrent tax measures and social/psychological aspects of taxpayers affect the extent of tax compliance. Specifically, it concludes that the psychological aspects of taxpayers such as taxpayers' perception and attitude have a more fundamental impact on personal income tax compliance than deterrent tax measures. Based on these, the study recommends:

1. Deterrent tax measures such as fines and penalties should incorporate the psychological aspect of taxpayers. That is, tax administrators should know when and how to combine strict deterrent measures with persuasive measures (education).

2. The attitude and perceptions of taxpayers fundamentally affect their compliance level. Therefore, tax administrators can shape these positively by using education, enlightenment programmes, and carrying out value for money audit on taxes collected.

3. It is popularly said, "Seeing is believing". Thus the government can ensure better compliance by been accountable and providing evidence of proper utilization of taxpayers' fund. Such evidences must be visible like proper amenities, good roads, and other infrastructures.

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