Tax Structure Variables and Tax Compliance Behavior of Small Corporate Taxpayers in Nigeria: A Pilot Study

Sulaiman Umar Musa¹, Natrah Saad², and Idawati Ibrahim³

¹(Department of Accounting, Kaduna State University, Kaduna, Nigeria)
²³(School of Accountancy, Universiti Utara Malaysia)

Abstract: Considering the declining oil price and production challenges, Nigeria must enhance its taxation to ensure stable flow of revenue for financing development. Increasing tax compliance of corporate taxpayers is paramount in this regard. This paper is a pilot study of a main study which aims at investigating the compliance behavior of small corporate taxpayers in Nigeria. Hence, this paper examines a small amount of sample data on the influence of tax rate, detection probability, penalty and tax compliance cost on tax compliance behavior of small corporate taxpayers in Nigeria. The study uses questionnaire survey to obtain data. The questionnaire was initially subjected to content and face validity. The revised version of the questionnaire was administered to the pilot sample. The usable questionnaires collected were analyzed for reliability using the statistical software SPSS version 22. The outcome reveals that the instrument is valid and reliable. Also, the data from the pilot study shows evidence of reasonable consistency.

Keywords: Tax compliance behavior, Small corporate taxpayer, Pilot test, Nigeria.

I. INTRODUCTION

Tax revenue is one of the most stable source of revenue for financing government budget (Worlu & Nkoro, 2012). In many developed countries and developing ones, tax revenue accounts for a significant portion of government revenue or GDP. For instance, the average taxes to GDP proportion for the UK, Australia, South Africa and Kenya for four years from 2009 to 2012 were 24%, 21%, 26% and 19% respectively (World Bank, 2015). In the case of Nigeria, the ratio has been very low and discouraging. The World Bank report shows that it has decreased from 5% to 1.6% from 2009 to 2012. Also, for the same period, the average is 2.7%. This is far below the recommended ratio of 15% for the low-income countries like Nigeria as suggested by Cobham (2005). This problem can be attributed to the high dependence on petroleum revenue which led to negligence of other non-oil revenue sources. Statistics shows that oil revenue accounts for about 70% of the federal government revenue (Central Bank of Nigeria, 2013). However, the oil price has declined from $115 to $35 per barrel from 2011 to 2016 (OPEC, 2016). Most severely, the recent attacks on oil pipelines and production facilities by the Niger Delta militant group has decreased the oil production from 2.2 to 1.4 million barrels per day (Onuoha, 2016). Therefore, given the declining oil prices and production challenges in an economy that is still predominantly oil based, it has become necessary for the government to diversify its sources of revenue.

Worlu and Nkoro (2012) have indicated the good potentiality of tax revenue for financing development in Nigeria. Nevertheless, this potentiality is hampered by low compliance. Thus, there is need for investigating the factors that enhance tax compliance of individuals and corporations, and finding ways to reduce the prevalence of non-compliance. Even though, there are range of factors that influence taxpayers’ compliance behavior, tax structure variables remain essential determinants of taxpayers’ compliance decisions (Devos, 2007). This study focuses on the corporate income tax (CIT) of small corporate taxpayers. This focus is motivated by the corporate income tax best potentiality of generating high tax revenue compared to other non-oil taxes such as Value Added Tax (VAT), Customs and excise and education tax. Accordingly, Federal Inland Revenue Service (FIRS) statistics shows that CIT has the highest contribution among the non-oil taxes. For instance, CIT, VAT, Customs and Excise, Education Tax and other non-oil taxes contributed an average of 33.4%, 27.0%, 14.7%, 9.5 and 15.4% respectively for 2009 to 2012 (Central Bank of Nigeria, 2013).

Therefore, this paper intends to conduct a pilot test of a main study on the influence of tax rate, detection probability, penalty and tax compliance cost on tax compliance behavior of small corporate taxpayers. A pilot study is a small-scale feasibility study conducted before the main study to gather information to help in improving the quality of the main study. Thus, this is a pilot study to get feedback that will be used to enhance the procedures of the main data collection. It is hoped that, in the end, the findings of this study will contribute to understanding the tax compliance behavior of this class of taxpayers and in turn increasing the revenue from tax. The next section of the paper provides a literature review; section three discusses the methodology of the pilot study employed by this paper. Section four deals with the results and finally, section five provides conclusion of the paper.
II. LITERATURE REVIEW

Tax Compliance Behavior

Tax compliance is described as reporting all incomes and making payments of all taxes based on the provision of laws (Alm, 1991). The classical studies of tax compliance behavior have explained tax compliance as a decision under uncertainty where the taxpayer may profit if the audit did not detect him; where the act of evasion is detected, the taxpayer would have to face penalty (Allingham & Sandmo, 1972; Srinivasan, 1973). This definition emphasizes the structure variables (detection and punishment) to describe tax compliance behavior. In short, tax compliance can be described as the reporting of all incomes and making payments of all taxes as provided by the law by either individual or corporate taxpayer. The literature documents evidence on several determinants of tax compliance behavior.

Generally, the determinants of tax compliance behavior were classified into economic and non-economic factors (Alm, Sanchez, & DeJuan, 1994). The economic factors include income level, tax rate and penalty (Allingham & Sandmo, 1972; Fischer, Wartick, & Mark, 1992; Srinivasan, 1973). The non-economic factors include norms (personal and social) (Kirchler, Hoelzl, & Wahl, 2008), attitudes towards tax (Alabede, Ariffin, & Idris, 2011), fairness perception (Gerbing, 1988; Saad, 2009). The factors in both perspectives are important in determining tax compliance behavior, however, Alm et al. (1994) emphasized the importance of the economic factors. Moreover, the deterrence theory suggests that the taxpayer’s compliance decision is determined by five variables as identified by Devos (2007). These variables are the tax rate, detection probability, penalty, complexity and taxpayers’ income. This study is concerned with the first four variables. Thus, the deterrence theory is associated with tax rate, audit, penalty and complexity of tax laws. The theory implies strong positive influence on compliance decision by audit and penalty. In the case of tax rate, the influence is negative and tax rate determines the amount of the tax evasion. However, tax rate is connected to the taxpayers’ perceptions of horizontal equity (Devos, 2007). Similarly, Fischer et al. (1992) identified tax rate, penalty, audit and complexity as the tax structure variables. Hence, this study focuses on the influence of the economic factors, specifically, tax rate, audit, penalty and complexity (compliance cost) on corporate tax compliance behavior.

Focusing on corporate tax compliance behavior, the previous studies of tax compliance did not pay much attention to the corporate taxpayers; despite their larger contribution to the total tax income compared to personal income tax (Jouffaiaï, 2000, 2009; Nur-tegin, 2008). Most of the studies focused on individual tax compliance behavior (Alabede, 2011; Allingham & Sandmo, 1972; Alm et al., 2012; Fischer et al., 1992; Kirchler, 2007; Srinivasan, 1973; Torgler, 2003). Among the limited studies investigated corporate tax compliance behavior, most of them were conducted in the foreign countries of Europe and Asia, such as the US (Jouffaiaï, 2000; Kamdar, 1997; Rice, 1992); multi country-study involving transition economies of Albania, Bulgaria, Poland and Russia among others (Jouffaiaï, 2009; Nur-tegin, 2008); Australia (Evans, Carlon, & Massey, 2005); Greece (Tagkalakis, 2013); Malaysia (Abdul Jabbar, 2009; Sapiei & Kasipillai, 2013; Yusof, Ling, & Wah, 2014). Thus, this study tries to bridge these gaps by investigating corporate tax compliance behavior in a different context. Moreover, this study adapted measurements from previous studies to validate and widen the scope of corporate tax compliance literature to include different contexts.

Tax Rate and Corporate Tax Compliance Behavior

The literature of corporate tax compliance behavior documents empirical evidence on the connection between the structure variables and compliance behavior (Jouffaiaï, 2000; Kamdar, 1997; Sapiei & Kasipillai, 2013a; Rice, 1992). Specifically, for tax rate, the previous studies have constantly shown that the connection between tax rate and compliance behavior has been insignificant (Kamdar, 1997; Nur-tegin, 2008; Rice, 1992; Sapiei & Kasipillai, 2013). For instance, Rice (1992) investigated the factors that influence corporate income tax non-compliance in the US and found an insignificant connection between the tax rate and non-compliance. Later, Kamdar (1997) confirmed the findings of Rice. In Malaysia, Abdul Jabbar (2009) and Sapiei and Kasipillai (2013) focusing on corporate taxpayers also found insignificant influence of tax rate on tax compliance. In contrary, another Malaysian study, Yusof, Ling and Wah (2014) on corporate SMEs’ tax compliance found a significant influence of tax rate on tax compliance.

Audit and Corporate Tax Compliance Behavior

For audit, in line with deterrence theory, previous studies, have found significant influence of audit on corporate tax compliance behavior (Abdul Jabbar, 2009; Evans, Carlon, & Massey, 2005; Kamdar, 1997; Nur-tegin, 2008; Tagkalakis, 2013). It is concluded form these studies that audit stands to be a strong enforcement mechanism in bringing tax compliance. Nonetheless, Sapiei and Kasipillai (2013) investigated the determinants of corporate tax compliance based on the perception of external tax consultants. The results of the study showed that audit have no influence on corporate compliance behavior.

Penalty and Corporate Tax Compliance Behavior

In the case of penalty, majority of the previous studies have documented insignificant influence of penalty on corporate tax compliance behavior (Kamdar, 1997; Sapiei & Kasipillai, 2013b; Yusof et al., 2014). For example, Kamdar (1997) investigated the influence of penalty on the US corporate taxpayers and found
insignificant connection between penalty and tax compliance. Similarly, Sapiei and Kasipillai (2013) investigated the influence of penalty on corporate tax compliance in Malaysia and reported an insignificant effect. A more recent Malaysian study, Yusof et al. (2014) confirmed the finding of Sapiei and Kasipillai (2013).

**Tax Compliance Costs and Corporate Tax Compliance Behavior**

Finally, the compliance cost is estimated based on external and internal costs. The external cost involves payments to external consultants while internal cost involves internal employees’ cost. In this study, tax compliance cost is estimated based on the major compliance cost studies (Evans, 2003; Pope, 1992; Sandford, 1995; Sandford, Godwin, & Hardwick, 1989). The literature has documented evidence on the connection between tax compliance cost and corporate tax compliance behavior. Accordingly, Slemrod (2004) acknowledged that high tax compliance cost resulted from the complexity of tax laws and subsequently discourages tax compliance. Additionally, empirical studies have established the connection between compliance cost and compliance behavior in foreign countries (Abdul Jabbar, 2009; Das-gupta, 2002; Nur-tegin, 2008; Sapiei & Kasipillai, 2010; Yesegat, 2009). These studies reported insignificant influence of tax compliance cost on tax compliance with exception of Nur-tegin (2008). Thus, this study extends the literature by investigating the influence of the tax compliance costs on corporate tax compliance behavior in different context.

**Significance of this Study**

All the studies that investigated the relationship between tax compliance costs and tax compliance were conducted in foreign contexts of Asia and Europe (Abdul Jabbar, 2009; Chattopadhyay & Das-gupta, 2002; Nur-tegin, 2008; Sapiei & Kasipillai, 2010; Yesegat, 2009). Hence, this study extends the previous studies by investigating the relationship between tax compliance costs and tax compliance in a developing country of Africa.

**III. METHODS OF THE PILOT STUDY**

As this study is a pilot test of a main study, a small sample was selected for the pilot test based on the simple random sampling. The sample were selected from a population of 15,018 small corporate taxpayers locating and operating in Kano state (FIRS, 2015).These companies pay taxes to FIRS and operate in different sectors of the economy such as manufacturing, agriculture, services, trade and commerce, and buildings and construction. The population/list of the companies were given random values in excel 2016 using ‘rand function’ which assigns a random value to each element of the population. The list is then sorted based on ascending order and the first 50 companies were selected as the pilot sample of this study. This study administered the questionnaire to the selected sample.

**Instrumentation and Measurement of Variables**

As mention earlier, the survey instrument of this study is a questionnaire which is based on items adapted from previous studies of tax compliance. In line with Miller (1991) who considered Likert scale as most appropriate and reliable scale, this study measured the items of the questionnaire based on 5 points Likert scale. Specifically, tax rate, detection probability, penalty and tax compliance behavior are based on the five-points Likert scale. The scale ranges from ‘1’ to ‘5’ strongly agreed to strongly disagreed respectively. In the case of tax compliance cost, the respondents were asked questions that would provide an estimate of their total internal and external tax compliance costs for the period of 2014. Hence, tax compliance cost is excluded from the analysis as it is not a latent variable.

The items of the questionnaire are based on the latent variables of the study. All the variables are unidimensional. The questionnaire is divided into three main sections. Section one consists of items that measure the dependent and the independent variables of the study. Section two deals with the tax compliance costs estimation. Finally, section three involves questions about the demographic facts of the respondents.

**Demography of the respondents**

The respondents of this study consist of small companies in Kano that pay their income tax to the FIRS. This section analyzes the demographic information of the respondents which involves the age of business, accounting year end, main business activity, type of accounting system, number of employees and position of the responding officer. Table1 reveals the demographic information of the respondents.

<table>
<thead>
<tr>
<th>Demography</th>
<th>No. of Respondents</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trading Period</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than three years</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Three to five</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Six to eight</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>More than eight</td>
<td>23</td>
<td>70</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>End of Accounting</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>April</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>
Starting with age of business, the table shows that most of the respondents have been in business for more than eight years (70%). This shows that most of the respondents have tax related experience being in their respective businesses for at least five years. For accounting year end, majority of the respondents accounting periods end in December (60%). The remaining 40% have their accounting year end differs across the other months. In the case of main business activity, most of the respondents engage in the various business activities with slight deference in terms of proportion. However, trade and commercial activities take the highest proportion (23%) followed by agriculture with 21%. This indicates that the responses show representativeness of the sample in all the businesses that small corporations operate in the economy. About the method of keeping accounting records, most of the respondents (75%) keep their accounting records using computers. The remaining 25% keep their records by using both computer and manual methods. This indicates the fact that it easier to use computers in terms of storing, retrieving and analyzing the information for internal or external use. As for business size, number of employees is taken as the proxy for business size. The table reveals that most of the respondents (67%) have employees within the range of 50 to 149. About 11 percent were below this range while the remaining were above this range. Finally, for positions of the responding officers, the table shows that most of the questionnaires (89%) were completed by manager/accountant and accounting clerks. These are officers in the positions capable of providing the required information about the tax matters of the responding companies.

Content Validity

The first draft of the questionnaire was subjected to the content validation process. Content validity involves subjecting the instrument to specialist evaluation of the appropriateness of the items chosen to measure the variables (Hair, Money, Samouel, & Page, 2007). Thus, the first draft was submitted to six experts who includes three academicians and three practitioners in the tax area for the content validity. After this first validation process, the questionnaire was amended accordingly and the pilot study was conducted to get feedback that will be used to enhance the procedures of the main data collection. The entire procedure was finished between the periods of three weeks in the month of November, 2015. In line with the recommendation of Malhotra (2008) that the sample size for pilot starts from 15-30 respondents, a total of 50 questionnaires were administered to the selected respondents. The questionnaires were administered in excess to overcome the problem of non-response and/or unusable questionnaires (Salkind, 2012). Out of the 50 questionnaires, 41 were completed and returned. Seven of the returned questionnaires were not properly completed and thus removed from the analysis. Hence, a total of 34 questionnaires were used for further analysis.
IV. RESULTS OF THE RELIABILITY TESTS

The 34 valid questionnaires were subjected to the reliability test. According to Salkind (2012), reliability refers to the ability of measurement items to measure the same construct more than once and produce the same results. Cronbach’s alpha coefficient is mostly used in testing reliability (Sekaran & Bougie, 2010). Thus, Cronbach alpha test is used in this pilot study to assess the internal uniformity of the instrument of the study using IBM SPSS for windows version 22 software.

The data were then coded and input into the software. After performing the reliability test, the results of the test revealed that all the instrument have high reliability with Cronbach’s alpha coefficient ranging from 0.75 to 0.95. This is within the required level of 0.70 above that considered highly reliable (Nunnally, 1978; Sekaran & Bougie, 2010). Table 2 presents the results of the reliability coefficients of the four latent variables in the study. The Cronbach’s alpha values for the respective constructs under investigation are all above 0.70. Thus, it can be concluded that all the constructs are reliable, and therefore there was no need to remove any item at this stage.

Table 2: Summary of Reliability Test

<table>
<thead>
<tr>
<th>Construct</th>
<th>No of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax compliance behavior</td>
<td>5</td>
<td>0.84</td>
</tr>
<tr>
<td>Tax rate</td>
<td>3</td>
<td>0.85</td>
</tr>
<tr>
<td>Detection probability</td>
<td>5</td>
<td>0.95</td>
</tr>
<tr>
<td>Penalty</td>
<td>4</td>
<td>0.91</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Limitation and suggestion for future research

Notwithstanding the contribution of this study, it has some limitations which should be noted by future studies. This study considered only tax structure variables to explain tax compliance behavior. However, tax compliance is a complex behavior that may be better explained by combination of institutional and voluntary factors such as bribery, perception of governance quality, fairness of the tax system etc. together with structural factors. Hence, future studies should consider combination of these factors. Also, this study has a limitation of focusing only on one state among 36 states in Nigeria. Thus, future studies should widen their scope by including more states.

V. CONCLUSION

Nigeria tax revenue contribution to GDP is far below the recommended level. This indicates a large gap in tax collection. This problem is attributed to the high dependence on oil revenue which led to neglect of other sources of revenue particularly taxation. Giving the current situation of declining oil prices and petroleum production, it has become mandatory for the government to diversify the sources of revenue. Taxation stands to be one of the most certain and sustainable source of revenue for the government. This paper is a pilot study of the main study that aims at investigating the influence of structural variables and tax compliance cost on the tax compliance behavior of the small corporate taxpayers in Nigeria. The main objective of the pilot study is to assess the validity and reliability of the research instrument before the main study. After drafting the first copy of the instrument consists of measures that were adapted from the previous studies, the first draft was subjected to content validity. The draft was then revised based on the observations of the content validity. The measures in the revised version of the instrument were then subjected to the reliability test. The results of the reliability test which is based on the Cronbach Alpha coefficient indicated that all the measures were reliable with coefficient above the benchmark of 0.70.

VI. REFERENCES