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# Analysis of the Determinants of Property Tax Liability Compliance of Rateable Hereditaments in Selected States in Nigeria

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Property tax liability as an actual burden of tax is assessed on the value of hereditaments within a rating jurisdiction. The shortfall from revenue generated from total tax liability on rateable hereditaments has been attributed to certain determinants emanating from inefficient operation of property tax administrative system in Nigeria. It is the aim of the study therefore, to assess the determinants of property tax liability compliance in selected states of Nigeria. The objectives focus on assessing trends in tax liability values and rates of collection, assess factor determining tax liability compliance. Data collected were through questionnaire and property tax records in Lagos, Kaduna and Kano States. Descriptive statistics, ANOVA and factor analysis techniques were used for data analysis. The results of the trends in property tax liability value over the period 2000-2017 indicates that Lagos has the highest collection rate of 69% followed by Kano (31%) and Kaduna (28%) indicating poor compliance level. The outcome revealed that 75%, 71% and 73% variations in property tax liability compliance are influenced by economic, institutional, social, individual, and socio-economic factors across the states. The study concludes that shortfall in revenue generated from property tax despite the values of hereditaments is credited to poor compliance attitudes triggered by economic, social, institutional, individual and socio-economic determinants. A complete overhauling of institutional framework for property system in Nigeria in order to address level of compliance to property tax liability is recommended.

**Keywords:** Property tax, liability, compliance, determinants, hereditaments

## Introduction

Property taxation is the oldest and most common form of taxation levied on the value of land and landed property. It is the single most important source of locally raised revenue in many parts of the world and often considered reliable source of revenue for the governments (O'Sullivan *et al.*, 1995; Aluko, 2005). These form of taxes remain among well-known local taxes today because it is the most viable, stable, predictable, and veritable source of revenue for a truly independent local government administration (Babatunde, 2012).Property taxes are sometimes referred to as wealth tax due to their ability to generate sustainable revenue annually as levied on either capital or rental values of properties and borne either by occupiers or owners (Dale &McLaughlin, 1999).

Traditionally, property tax has been identified by government for reasons of its visibility and the inability of the tax base to shift location as a result of the imposed tax. It is also a suitable revenue source due to the linkage between the types of services often provided by the government that directly enhance property values. Thus, expenditure for essential services such as fire, police protection, roads, drainage and street lighting results to increase in property values within a jurisdiction.

Property tax liability is derived from the value of hereditaments and the benefit derived by the tax payer is built on the premise that individual tax burden should be proportional to the benefit they receive from Government. These benefits could be in terms of services, infrastructure and business working conditions necessary to turn productive abilities into stream of income (Musgrave & Musgrave, 1976).Therefore; it is often difficult to ascertain especially when the able people claim inability to pay due to negative perception and attitude. Though the ability to pay tax is determined mostly by factors which include social, economic, administrative, demographic, institutional and technical factors, Umar *et al.* (2012) stated further that, in real sense, property tax liability is determined by factors such as socio-economic status, political structure, socio-cultural attitudes, fiscal policy and economic framework.

In Nigeria, the rate of urbanisation and increase in urban population have exerted pressure on the available public services resulting to an increase financial burden on governments at all levels. The Federal, States and Local Governments must as a matter of statutory responsibility, augment the prevailing demand for community services as they determine the wellbeing of the citizenry. However, the revenue to finance public services has always been one of government most challenging area. The governments also have not sufficiently explore the potentials in landed property taxation as an alternative revenue source to finance community need for social services and infrastructure (Aluko, 2005; Ajayi *et al.,* 2014).Thus, the inadequacy in revenue generation has impeded the government's ability to provide the required services to meet current demand. According to Ogunba and Tomori (2006), even the little amount of revenue generated is used to fund recurrent expenditure with little left for infrastructure development.

The general consensus from several studies such as Ishaya *et al.* (2012), Mohammed and Isiyaku (2013), Caleb and Ibitoye(2014), Ajayi *et al,* (2014), Awunyo-Victor (2015), Umar *et al,* (2012) and Ogunba and Tomori (2006) have been that property tax liability fall-short of expectations and there is need to examine the composition of rateable hereditaments and factors determining the decision to pay property rate. Hence, this study's aim is to assess the determinants of tax liability compliance of rateable hereditaments in selected States of Nigeria. The objectives set are; to assess the trend in property tax liability values and collection rates and identify the determinants of the property tax liability compliance in the study areas.

The rationale for this study is premised on the ground that the shortfall in internal revenue generated requires urgent augmentation so as to revive the distressed facilities and save the community from infrastructure decay by appraising the determinants of property tax liability. Previous studies have not been able to appraise economically the value of the tax bases, liabilities and ability to pay of the tax object; some of these studies focuses mainly on assessing the administrative process and structure of property tax (Ogunba &Tomori, 2006; Ayeni & Adewale, 2006; Muhammad & Ishyaku, 2013; Aluko, 2005).

## Literature Review

Property taxation according to Kalu (2011), is a practice whereby a payment is imposed on ownership and other legal interests in land and buildings. It is calculated annually in the form of a tax, rate, levy or charge. While property rating on the other hand, is a process of determining rateable values of hereditament using acceptable methods of valuation to analyse some key data on the subject property to arrive at how much the property could reasonably be exchanged for between a willing tenant and a willing property owner. This will be an arm's length transaction and as at the date of assessment by the Valuation Officer or appointed agent (Hefferan, 2011). The processes considered completed when the billed rates are collected and paid into the treasury of the concerned Local Government.

Overtime, various criteria for scrutinising tax systems have evolved; James and Nobes (2000) consider such criteria as efficiency, incentive, equity and microeconomic consideration to be important. Although they argued that not all may be relevant in every circumstance nonetheless, it does provide a framework within which various tax systems' proposals may be considered and also used as a checklist for important aspects that ought to be included. Stiglitz (2000) however, conceptualised five desirable characteristics for any tax system namely; economic efficiency, administrative simplicity, flexibility, politically responsibility and fairness. These characteristics were also considered by Slemrod and Bakija (2001) and they further mentioned, it may vary with circumstance as well as tax objectives.

**Legal framework for Property tax in Nigeria**

The laws that govern property taxation in Nigeria were enacted by the States' Houses of Assembly in accordance with the 1999 Constitution. The day-to-day details of administration tasks are performed by the Central Valuation Office in line with the Tenement Rate Laws of various states (Kuye, 2002). The Local Government Act of 1976, sections 127, 130, 131 and 137 under the applicable subsections provide for rates assessment and collection by apportioning certain percentages on annual values of the rateable hereditament to be paid by the property owner annually. This Act also provides guides to property tax administration and section 163 further empowers the local authorities who have autonomy over the local populace.

In Lagos State, the Land Use Charge Act was signed into law and became enforceable in June 2001. The law established that a land based charge is payable on real properties situate within the territory of Lagos State. In 2012, the Oyo State enacted the Land Use Charge Act after repealing the old Tenement Rate Cap 160 Laws of Oyo State. The Land Use Charge law is a consolidation of tenement rate and land charges on real property leased by government and other public agencies with different regulations guiding the operations and management of public and private estates. According to the law, per unit assessment rate of the Land Use Charge liability is directly according to the size of the land and building. In Section 5 of the Oyo State Land Use Charge Law, the owner of the property shall be liable to pay land use charge in respect of any chargeable property. However, the law empowers the occupier of a chargeable property to pay the charge who is a tenant, and such shall be recoverable from the rent or other money due or, to become due to the owner. This law, as enacted by the respective states, addresses the peculiarities of socio-economic and cultural orientations as well as the composition of the hereditaments and the property markets.

**Theory Structure and Property Tax Liability Compliance**

Property tax liability is the actual burden of tax and it is assessed on the value of hereditament (property) which may either be rental or capital value. The actual tax burden as determined is transmitted to the occupant of the property who, in beneficial occupation, becomes liable. What become most tasking of the tax administrative processes is the assurances of compliance by the tax payers. The ability and willingness of payers to respond effectively to their tax liability can suitably be explained by the *Social Influence Theory*, and it states that compliance behaviour, and attitudes towards the tax system is thought to be affected by the behaviour and social norms of an individual's reference group (Snavely, 1990).It is reasonable to assume that human behaviour in the area of property taxation is influenced by social interactions much in the same way as other forms of behaviour. Compliance behaviour and attitudes towards the tax system may therefore be affected by the behaviour of an individual's reference group such as relatives, neighbours and friends (Sah, 1991).

On the other hand, social relationships may also deter individuals from engaging in tax evasion in fear of the social sanctions imposed once discovered and revealed publicly (Sah, 1991). One of the most consistent findings about taxpayer attitudes and behaviour in Western countries is that those who report compliance believe that their peers and friends (and taxpayers in general) comply, whereas those who report cheating believe that others cheat. Evidence suggests that perceptions about the honesty of others may affect compliance behaviour.

**Determinants of Tax Liability on Rateable Hereditaments**

Promoting property tax compliance involves empowering or strengthening key factors such as improving services available to the taxpayers, providing them with clear instructions, understandable forms and assistance, and information as necessary. James and Alley (2004) affirmed that tax compliance is very important in the whole process of collecting tax revenues, also monitoring compliance is equally important and requires proper maintenance of taxpayer current accounts and management information systems. The awareness of tax laws, business experience and the integrity of employees together with training needs are very important in the compliance process (Lubua, 2014).The determinants of property tax liability compliance as categorised into three based on Kirchler (2007)approach has an interdisciplinary perspective and represents a wider approach of tax compliance determinants compared to other researchers. For example, Kirchler (2007) classified determinants of tax compliance into five categories based on psychological and tax authority-taxpayers' view point. These categories are; political, social psychology and decision making perspectives; it also includes self-employment and interaction between tax authorities and taxpayers.

Also, the determinants of property tax liability compliance are categorised under economic, institutional, social, individual as well as socio-economic factors (Song & Yarbrough, 1978;Torgler & Schneider, 2005; Shehata & Mestelmen, 2004; Adebisi & Gbegi, 2013).Economic factors in relation to tax compliance refer to actions associated with the costs and benefits of performing the actions (Loo, 2006). This mainly includes tax rates and level of government spending. Shehata & Mestelmen(2004) and Kirchler (2007) found a significant relationship between tax rates and tax evasion, revealing that lowering the rates may encourage compliance and less evasion, while raising marginal tax rate will likely encourage payers to evade tax more (Ali, Cecil & Knobelt, 2001). Though some studies like those of Kirchler, Hoelzl and Wahl (2008), Park and Hyun (2003) and McKerchar and Evans (2009) indicates that raising or lowering tax rates is less likely to impact in some circumstances, suggesting that tax rates have mixed impact on tax liability compliance.

Institutional factors as determinant of property tax liability compliance comprised elements such as efficiency of the tax process and administration as well as the important role tax authorities play in compliance decisions (Adebisi & Gbegi, 2013). The role of the tax authority in minimizing the tax gap and increasing voluntary compliance is clearly very important (Kirchler *et. al.*, 2008). Hasseldine and Li (1999) illustrated this by placing the government and the tax authority as the main party that need to be continuously efficient in administering the tax system in order to minimise tax evasion. Richardson (2008) in his study also suggests that the role of government has a significant positive impact on determining attitudes toward tax. The recommendation was that the government should improve in their reputation and credibility in order to obtain trust from the taxpayers.

Social factors determining tax compliance relates to taxpayers' willingness to comply with tax laws in response to other people's behaviour and their social environment (i.e.

the government, friends and family members) (Torgler, 2007). However, Kirchler (2007) suggested that social factors should be viewed in a broader sense than Torgler's perspective to include the psychology of the taxpayers. Social factors are ethics and attitudes toward tax compliance, perceptions of equity and fairness, changes to current government policy and reference groups. Torgler and Scheneider (2007) opined further that improved social institutions such as tax morale, voice and accountability, the rule of law, government effectiveness and reducing corruption will helps to reduce shadow economy activities.

Another determinant of tax compliance is individual factor, this relates to personal decisions either to evade or not to evade taxes and are heavily reliant on taxpayers' personal judgment (Barrand, Harrison & Ross, 2004). Other influences such as those of peers might also be significant; the final decision is however made by the individual who is liable. Personal circumstances like personal financial constraints and awareness of penalties and offences are also likely to have a significant impact on taxpayer compliance behaviour (Mohani& Sheehan, 2004; Mohani, 2001); this is because distress faced by an individual may encourage them to reprioritise what has to be paid first such as basic survival needs (foods, clothing, housing etc.) rather than tax liabilities.

Socio-economic factors include age, gender, general level of education and income level. These are the most common variables used in tax compliance research (Devos, 2005). Daude,*et al.* (2013) explains that tax morale is driven by age, religion, gender, educational level and employment status. Also, they argue further that satisfaction of the quality of social public services provided by the government has high impact on the tax morale and tax compliance. In some studies like Beron *et al.* (1992), Chan (2000), Mohani (2001), and Richardson (2008) found that socio-economic factors such as age, income, level of education and culture also determines tax payers' willingness to comply with tax liabilities.

The above review has shown the basic tax issues particularly as it affect collection and narrows down to compliance of the property owners who also are major stakeholder in the property tax administrative process.

## Research Methodology

The study adopts a causal design approach based on determinants of property tax liability of the rateable hereditaments. The population includes the number of occupiers of the rateable hereditaments in Lagos, Kaduna and Kano States from whom information were obtained. Two (2) set of closed-ended questionnaire were designed and administered on the respondents. The first set was administered on the occupiers (households) soliciting information on factors determining property tax liability compliance and was designed using 5 point Likert scale; Strongly Agree=5, Agree =4, Undecided =3, Disagree =2, Strongly Disagree =1. While the second set was used on the States' Valuation Officers seeking information on annual property tax liability and assessed value across the study areas. The total sample frame as obtained was 32,478 and a sample size of 10,086 was determined through the use of Kothari (2004) formula as presented below:

$$n = \frac{Z^2 \times N \times \sigma^2}{(N-1)e^2 + Z^2\ \sigma^2}$$

Where n is the sample size, Z is the standardized normal value taken as 1.96 for a 95% confidence interval, σ is the standard of deviation which was put at 0.5 depicting a safe decision enhancing large enough samples, N is the household population and e- error term.

**Table 1: Sample population and questionnaire distribution**

| Location | Population | Sample Size | No of Questionnaire Distributed | No of Questionnaire returned | % Returned |
|---|---|---|---|---|---|
| Lagos | 23,088 | 5869 | 5869 | 4305 | 73.4 |
| Kaduna | 1653 | 881 | 881 | 725 | 82.3 |
| Kano | 7737 | 3336 | 3336 | 2479 | 74.3 |
| Total | 32,478 | 10086 | 10086 | 7509 | 74.4 |

Secondary data collection comprises of the published materials from the Valuation Offices of selected states, research journals and relevant textbooks. Descriptive methods of analysis were adopted and includes percentages, mean and Relative Importance Index (RII) while the inferential methods were ANOVA, and factor analysis techniques. Further, a reliability test was conducted on the data measured through Likert scale using Cronbach Alpha technique. The result of the test revealed a high level of internal consistency among the variables thereby suggesting that the data is reliable for analysis. Lagos has 85% reliability level while Kaduna and Kano have 83% and 88% respectively.

## Results and Discussion

### Demographic Information of Respondents

The demographic information of the respondents was obtained under the followings; income levels, age, maximum academic qualification attained and occupation. See Table 2,

**Table 2: Demographic information of respondents in the study area**

| | Lagos | | Kaduna | | Kano | |
|---|---|---|---|---|---|---|
| | Sum | % | Sum | % | Sum | % |
| **Income level (₦)** | | | | | | |
| 18000-30000 | 90 | 2.1 | 0 | 0.0 | 0 | 0.0 |
| 31000-50000 | 216 | 5.0 | 87 | 12.0 | 459 | 18.5 |
| 51000-100000 | 1405 | 32.6 | 400 | 55.2 | 926 | 37.4 |
| 100100 and Above | 2594 | 60.3 | 238 | 32.8 | 1069 | 43.1 |
| Total | 4305 | 100 | 725 | 100 | 2479 | 100 |
| **Age** | | | | | | |
| 18-30yrs | 137 | 3.2 | 67 | 9.2 | 0 | 0.0 |
| 31-45yrs | 990 | 23.0 | 348 | 48.0 | 895 | 36.1 |
| 46-60yrs | 2441 | 56.7 | 310 | 42.8 | 1242 | 50.1 |
| 61 and Above | 737 | 17.1 | 0 | 0.0 | 342 | 13.8 |
| Total | 4305 | 100 | 725 | 100 | 2479 | 100 |
| **Occupation** | | | | | | |
| Private | 2480 | 57.6 | 521 | 71.9 | 1519 | 61.3 |
| Public | 1825 | 42.4 | 204 | 28.1 | 960 | 38.7 |
| Total | 4305 | 100 | 725 | 100 | 2479 | 100 |
| **Level of Education** | | | | | | |
| Primary/secondary | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| ND/NCE | 0 | 0.0 | 87 | 12.0 | 430 | 17.3 |
| HND/BSC | 2434 | 56.5 | 420 | 57.9 | 1199 | 48.4 |
| MTech/BSc | 1867 | 43.4 | 216 | 29.8 | 850 | 34.3 |
| PhD | 4 | 0.1 | 2 | 0.3 | 0 | 0.0 |
| Total | 4305 | 100 | 725 | 100 | 2479 | 100 |

The outcome shows that majority of the respondents earns between ₦100, 000 and above per month for Lagos and Kano while Kaduna presents ₦50, 000 - ₦100, 000 per month. Also the respondents are mostly adults of between ages of 46-60 years old and mainly under the employment of the private sector with 57.6%, 71.9% and 61.3% for Lagos, Kaduna and Kano respectively. In addition, majority of them holds either HND or BSc constituting 56.5%, 57.9% and 48.4% for Lagos, Kaduna and Kano rateable jurisdiction.

**Trends in annual property tax liability value and collection rate**

This study carryout the assessment of the trends in the property tax liability values of rateable hereditament, amount collected and collection rate for 2000-2017 in the study areas.

The liability values of hereditament and annual amount collected as presented revealed annual rate of collection across the rating areas in Lagos, Kaduna and Kano. The collection rate for Lagos fluctuates between 2000 and 2013 while it increased steadily from 2014 to 2017 with a total collection rate of 69.0% of the ₦3, 059,000,000. This shows that there was an improvement with the compliance level by tax payers and the tax system. For Kaduna, the liability value and annual collection rate increased from 2001 to 2004 but fluctuated from 2005 to 2017 suggesting poor level of compliance and lack of improvement in the property tax system. Over the period of 18years, the total liability value was₦1, 049,000,000 and total amount of collected was ₦291, 200,000 indicating 28% collection rate much lower than 50% average. Kano has a total collection rate of 31% of the ₦1, 101,500,000 total liability value over the period of 2000-2017 also suggesting poor level of compliance and non-improvement in the property tax system in the State.

**Table 3: Annual amount of property tax liability and collection rate in the study area**

| | Lagos | | | Kaduna | | | Kano | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | LV (₦'m) | AC (₦'m) | CR (%) | LV (₦'m) | AC (₦'m) | CR (%) | LV (₦'m) | AC (₦'m) | CR (%) |
| 2000 | 89 | 39 | 43 | 5.0 | 2.7 | 54 | 18.5 | 7.0 | 38 |
| 2001 | 91 | 49 | 54 | 15 | 3.0 | 20 | 23 | 8.5 | 37 |
| 2002 | 101 | 44 | 44 | 31 | 8.0 | 26 | 25 | 10 | 40 |
| 2003 | 115 | 61 | 53 | 40 | 11 | 28 | 31 | 9.0 | 29 |
| 2004 | 121 | 65 | 54 | 45 | 17 | 38 | 39 | 8.0 | 21 |
| 2005 | 129 | 71 | 55 | 49 | 15 | 31 | 42 | 10 | 24 |
| 2006 | 134 | 83 | 62 | 51 | 14.5 | 28 | 49 | 13 | 27 |
| 2007 | 140 | 77 | 55 | 60 | 18 | 30 | 53 | 15 | 28 |
| 2008 | 145 | 73 | 50 | 63 | 19 | 30 | 58 | 13.5 | 23 |
| 2009 | 149 | 80 | 54 | 65 | 16 | 25 | 63 | 15 | 24 |
| 2010 | 165 | 78 | 47 | 68 | 13 | 19 | 67 | 17 | 25 |
| 2011 | 179 | 97 | 54 | 70 | 14 | 20 | 69 | 19.5 | 28 |
| 2012 | 188 | 129 | 69 | 72 | 19 | 26 | 74 | 20 | 27 |
| 2013 | 201 | 159 | 79 | 75 | 21 | 28 | 79 | 25 | 32 |
| 2014 | 250 | 198 | 79 | 79 | 22 | 28 | 83 | 29 | 35 |
| 2015 | 273 | 245 | 90 | 83 | 25 | 30 | 96 | 31 | 32 |
| 2016 | 289 | 269 | 93 | 87 | 23 | 26 | 112 | 40 | 36 |
| 2017 | 300 | 281 | 94 | 91 | 30 | 33 | 120 | 53 | 44 |
| Total | 3,059B | 2,098B | 69 | 1049B | 291.2M | 28 | 1101.5B | 343.5M | 31 |

**Note:** LV = Liability Value (₦'million)

AC = Amount Collected (₦'million)

CR = Collection Rate (%)

Source: Compiled from Valuation Offices (Bureau of Lands) of Lagos, Kaduna & Kano States (2019)

**Table 4: Variation in the rate of property tax collection in the study areas**

| | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Between Groups | 13093 | 2 | 6546.500 | 50.283 | .000 |
| Within Groups | 6639.833 | 51 | 130.193 | | |
| Total | 19732.833 | 53 | | | |

The analysis of the variation in property tax collection rate across the study areas presented in table 4 revealed that the f-stat at 50.283 is significant at p-value = 0.000 less than 0.05. This indicates that there is significance difference in the rate of tax collection in Lagos, Kaduna and Kano.

**Factors Determining Property Tax Liability Compliance in the study Areas**

An examination of the factors that hamper the ability of tax payers to meet up with their tax liability in the study area is made and a description of the variables used for Lagos, Kaduna and Kano are presented in table 7 below.

The result revealed that level of education and income ranked first as determinant of property tax liability having highest RII of 93%, this is followed by Availability of community services ranked 2$^{nd}$with RII of 0.92 (92%) and mean responses of 4.606, 4.591 and 4.583.Age of the property is ranked 3$^{rd}$ for Lagos and Kaduna with EII 0.90 (90%) each while it ranked 4$^{th}$ for Kano. The results revealed that all the study areas agreed on level of education and income and availability of community services respectively.

Kaiser-Mayer-Olkin measure of sampling adequacy (KMO) and Bartlett's test of sphericity were used for the validity and reliability test, Bartlett's test of sphericity for the correlation matrix of the variable indicates significant at p-value of 0.000 less than the assumed level of 0.05. While the value of KMO greater than 0.5 indicate that factor analysis can use for the given set of data. Using the Principal Component Analysis (PCA), 5 factors were extracted that accounts for 81.1% of the total variation in the factors determining property tax liability in Lagos. With the cut off mark of 0.5, the variables were loaded in components. (See table 6 below).

The result shows the 5 factors with their variable loadings. Factor 1 has 5 variables that constitute 25.753% of the total variation and is referred to as "Economic Factor". The second with 20.571% variance is referred to as "Institutional Factor" while factor 3 has a variance of 16.747% and 4 variable loadings and tagged "Social Factor". The 4$^{th}$ and 5$^{th}$ factors are loaded with 3 variables each and variations at 10.907% and 8.710% respectively and named "Individual Factor" and "Socio-economic Factor".

Analysis for Kaduna also revealed an extracted 5 components account for a total variation of 78.75% of the factors determining property tax liability in Kaduna.

The result for Kaduna shows the 5 factors with their variable loadings. Factor 1, "Institutional Factor" is loaded with 2 variables that constitute 24.533% of the total variation. The 2$^{nd}$factor is referred to as "Economic Factor" loaded with 5 variables and a variance of 18.88%. The 3$^{rd}$component has 3 variable loadings that constitute 16.747% variance and is referred to as "Individual Factor". The 4$^{th}$ and 5$^{th}$ factors have 4 and 3 variable loadings with variations of 10.555% and 8.041% respectively and are tagged "Social Factor" and Socio-economic Factor" respectively.

The results in table 8 below shows the situation for Kano, and unlike Lagos and Kaduna, 6 components were extracted with a total variance of 83.424% explaining the determinants of property tax liability in the state.

**Table 5: Factors determining property tax liability compliance**

| Determinants | Lagos | | | Kaduna | | | Kano | | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean | RII | Rnk | Mean | RII | Rnk | Mean | RII | Rnk |
| Tax rate | 3.952 | 0.79 | 9 | 3.937 | 0.78 | 8 | 3.994 | 0.79 | 7 |
| General economic condition | 3.806 | 0.76 | 11 | 3.761 | 0.75 | 11 | 3.789 | 0.76 | 11 |
| Personal financial constraint | 4.339 | 0.86 | 5 | 4.315 | 0.86 | 4 | 4.301 | 0.72 | 4 |
| Property investment income | 3.564 | 0.71 | 13 | 3.509 | 0.70 | 12 | 3.481 | 0.70 | 12 |
| Value of the property | 4.339 | 0.86 | 5 | 4.315 | 0.86 | 4 | 4.301 | 0.86 | 4 |
| Efficiency of tax authority & government | 4.242 | 0.84 | 6 | 4.239 | 0.85 | 5 | 4.301 | 0.86 | 4 |
| Equality and fairness | 4.097 | 0.82 | 7 | 4.063 | 0.81 | 7 | 4.096 | 0.82 | 6 |
| Level of government spending | 4.558 | 0.91 | 4 | 4.541 | 0.90 | 3 | 4.532 | 0.91 | 3 |
| Awareness of offences & penalty | 3.321 | 0.66 | 15 | 3.258 | 0.64 | 13 | 3.250 | 0.65 | 13 |
| Resident attitude to property tax payment | 4.097 | 0.82 | 7 | 4.138 | 0.83 | 6 | 4.173 | 0.83 | 5 |
| Property market constraint | 3.855 | 0.77 | 10 | 3.887 | 0.78 | 9 | 3.942 | 0.78 | 8 |
| Political status | 3.733 | 0.74 | 12 | 3.837 | 0.77 | 10 | 3.891 | 0.78 | 10 |
| Availability of community services | 4.606 | 0.92 | 2 | 4.591 | 0.92 | 2 | 4.583 | 0.92 | 2 |
| Cultural factor | 3.976 | 0.79 | 8 | 3.937 | 0.79 | 8 | 3.917 | 0.78 | 9 |
| Individual income level | 4.630 | 0.93 | 1 | 4.616 | 0.93 | 1 | 4.609 | 0.93 | 1 |
| Age of the property | 4.533 | 0.90 | 3 | 4.516 | 0.90 | 3 | 4.506 | 0.90 | 4 |
| Level of education | 4.630 | 0.93 | 1 | 4.616 | 0.93 | 1 | 4.609 | 0.93 | 1 |

**Table 6: Determinants of property tax liability compliance in Lagos**

| Determinants | Factor loadings | Eigenvalue | % of Variance |
|---|---|---|---|
| **Factor 1: Economic Factors:** | | 4.375 | 25.735 |
| Tax rates | .964 | | |
| General economic condition | .943 | | |
| Property investment income | .907 | | |
| Level of government spending | .905 | | |
| Value of property asset | .704 | | |
| **Factor 2: Institutional Factors** | | 3.497 | 20.571 |
| Property market constraint | .925 | | |
| Efficiency of tax authority & government | .893 | | |
| **Factor 3: Social factors** | | 2.580 | 15.178 |
| Equity & fairness | .932 | | |
| Resident attitude to property tax payment | .916 | | |
| Cultural beliefs | .687 | | |
| Availability of community services | .749 | | |
| **Factor 4: Individual Factors** | | 1.854 | 10.907 |
| Awareness of offences & penalties | .871 | | |
| Personal financial constraint | .865 | | |
| Political status | .851 | | |
| **Factor 5: socio-economic factors** | | 1.481 | 8.710 |
| Individual level of Income | .738 | | |
| Age of the property | .672 | | |
| Level of education | .608 | | |

**Table 7: Determinants of property tax liability compliance in Kaduna**

| Determinants | Factor loading | Eigenvalue | % of Variance |
|---|---|---|---|
| **Factor 1: Institutional Factors** | | 4.171 | 24.533 |
| Property market constraint | .924 | | |
| Efficiency of the tax authority & government | .904 | | |
| **Factor 2: Economic Factors:** | | 3.210 | 18.88 |
| Tax rates | .940 | | |
| Value of property asset | .930 | | |
| General economic condition | .891 | | |
| Level of government spend in | .889 | | |
| Property investment income | .844 | | |
| **Factor 3: Individual Factors** | | 1.794 | 16.747 |
| Awareness of offences & penalties | .858 | | |
| Personal financial constraint | .807 | | |
| Political status | .817 | | |
| **Factor 4: Social factors** | | 2.847 | 10.555 |
| Equity and Fairness | .917 | | |
| Resident attitude to property tax payment | .867 | | |
| Cultural beliefs | .763 | | |
| Availability of community services | .721 | | |
| **Factor 5:Socio-economic factor** | | 1.367 | 8.041 |
| Individual level of Income | .656 | | |
| Age of the property | .600 | | |
| Level of education | .542 | | |

**Table 8: Determinants of property tax liability compliance in Kano**

| Determinants | Factor loading | Eigenvalue | % of variance |
|---|---|---|---|
| **Factor 1: Institutional Factors** | | 4.174 | 24.554 |
| Efficiency of the tax authority & government | .898 | | |
| Property market constraint | .908 | | |
| **Factor 2: Economic Factors:** | | 3.166 | 18.626 |
| Value of property asset | .935 | | |
| Tax rates | .919 | | |
| General economic condition | .878 | | |
| Level of government spending | .871 | | |
| Property Investment Income | .875 | | |
| **Factor 3: Individual Factors** | | 2.843 | 16.724 |
| Awareness of offences & penalties | .830 | | |
| Political Status | .791 | | |
| Personal financial constraints | .503 | | |
| **Factor 4: Social factors** | | 1.728 | 10.164 |
| Equity & fairness | .910 | | |
| Resident attitude to property tax payment | .791 | | |
| Cultural beliefs | .650 | | |
| Availability of community services | .721 | | |
| **Factor 5: Socio-economic factor** | | 1.269 | 7.464 |
| Individual level of income | .860 | | |
| Age of the property | .792 | | |
| Level of education | .513 | | |
| **Factor 6: Socio-cultural factors** | | 1.002 | 5.892 |
| Individual income level | .550 | | |
| Cultural beliefs | .521 | | |

The result shows that Factor 1 (institutional factor) accounted for the highest percentage variance with 24.554% of the total variation in the determinants of tax liability compliance in Kano. This is followed by Economic Factor that contributed 18.626% of the total variance with 5 variables while the 3rd component tagged "Individual Factor" is loaded with 3 variables that contributed up to 16.724%. The 4th, 5th and 6th components are referred to as "Social", "Socio-economic" and "Cultural" factors with 10.164%, 7.464% and 5.892% variations respectively.

The result from analysis has shown that the total property tax liability from 2000-2017 are ₦3.059, ₦0.1049 and ₦0.1101 billion for Lagos, Kaduna and Kano, and Lagos attained a 69% collection rate while Kaduna and Kano made 28% and 31% less than 50%. It is thus inferred here that this poor performance, in terms of collection rates, could be due to the unwillingness of tax payers to comply with their tax liability and poor government administrative machineries for collection. Therefore, to ascertain the issues behind this poor performance, the determinants are ranked as they affect tax liability compliance. Level of education, income, availability of infrastructure and age of property were among the first-fourth determinants of tax liability compliance to be reckoned with by the property taxpayers. The level of agreement further revealed a consensus among the taxpayers hence they did not differ in their response towards these determinants.

Further, the determinants of tax liability compliance as assessed, indicates that property tax system in Nigeria is impeded by five major factors that need to be addressed if any effective property tax system is to be put in place. The improvement in economic activities such as increase in government expenditure on infrastructure plays a significant role in property tax liability compliance among the taxpayers. A reliable institutional-framework is found capable of promoting compliance to property tax liability whenever such arrangement is geared toward ensuring transparency and accountability. It is not in doubt that whenever property tax system is made simple with clear process, attitudes of taxpayers towards compliance tends to be positive and responsive. Also transparency and accountability under institutional factor is a necessary condition for restoring public confidence, effectiveness of tax authority and government institutional policy on property market have long term effect on compliance to property tax liability, therefore having sustainable and property market-friendly policies tend to encourage compliance. Socio-economic status especially income level and educational status play significant role in property tax liability compliance, in that property market-friendly policies is geared toward protecting property investment for improving income level which in turn encourage compliance. In the same vein, education creates awareness of right and obligations, and one of it is to comply with property tax policy. Individual factors as related to awareness of offences and penalties indicates when the prospective taxpayer is aware of penalty for tax evasion and avoidance, it tends to encourage compliance, and also political disposition in the society is platform for compliance to property tax liability. In social factor also, wherever perceived level of equity and fairness is high and that of social infrastructure, compliance toward payment of property tax liability will be very high and vice-versa. Finally, cultural beliefs among the taxpayers are an important factor that affects property tax system Nigeria.

## Conclusion and Recommendations

The study has assessed the determinants of property tax liability compliance in Lagos, Kaduna and Kano States of Nigeria. The property tax liability value as assessed, has risen progressively for the states from 2000-2017 however, the collection rate remained very low significantly. Kaduna and Kano collection rate was 28% and 31% which was far below the 50% average while Lagos collection rate was at 69% and higher than the other states. This poor performance following the outcome of the collection rate indicates taxpayers' non-compliance with their tax liabilities in the study areas. Thus, the study has established that economic, institutional, social, individual, socio-economic and cultural factors are the determinants of property tax liability compliance in the study area. An overhaul of the institutional structure of the property tax system in Nigeria is recommended and a better framework that will ensure transparency and accountability for the purpose of fairness and equity be developed. The government should also engage more in social and economic capital investment which will impact on ability to pay property tax by residents.

## References

Adebisi, J. F & Gbegi, D.O (2013). Effect of tax avoidance and tax evasion on personal income tax administration in Nigeria. *American Journal of Humanities and Social Sciences,* 1(3) , 125-134.

Ajayi, M.T.A., Ogunbajo, R., Abbas, S., & Abdulkareem, S. (2014).The Relationship between Residential Property Development and Property Tax Generation in Ibadan North, Oyo State.

Ali, M. M., Cecil, H. W. & Knoblett, J. A. (2001).The Effects of Tax Rates and Enforcement Policies on Taxpayer Compliance: A Study of Self-Employed Taxpayers, *Atlantic Economic Journal* 29, 186–202.

Aluko, B.T. (2005). Building Urban Local Governance Fiscal Autonomy Through Property Taxation Financing

Option. *International Journal of Strategic Property Management*, 9, 201-214.

Awunyo-Vitor, D., Osae D.A & Donani, S (2015). Determinants of property rate default: evidence from the Ashanti Region, Ghana. *Commonwealth Journal of Local Governance,* 16(17), 190-203.

Ayeni, O. O. & Adewale O.S. (2006). Promoting Land Administration and Good Governance", 5th FIG Regional Conference Accra, Ghana, March 8-11, 2006.

Barrand, P., Ross, S. G. & Harrison, G. (2004). Integrating a Unified Revenue Administration for Tax and Social Contribution Collections: Experiences of Central and Eastern European Countries (December, 2004). IMF Working Paper No. 04/237. Available at SSRN: https://ssrn.com/abstract=879062[Assessed on 21 August 2019]

Beron, R. S., Vandello, J. A., & Bunsman, B. (1996). The Forgotten Variable in Conformity Research: The Impact of Task Importance on Social Influence. *Journal of Personality and Social Psychology*, 71(5), 915-927.

Caleb, O. & Olatoye, O. (2014).Database Creation for Tenement Rate Collection: The Role of GIS. *The Pacific Journal of Science and Technology,* 15(1), 190-199.

Chan, C. (2000). An expanded model of taxpayer compliance: Empirical evidence from USA and Hong Kong. *Journal of International Accounting, Auditing and Taxation,* 9(2), 83-103.

Chau, G., & Leung, P. (2009). A Critical Review of Fischer's Tax Compliance Model: A Research Synthesis. *Journal of Accounting and Taxation,* 1(2), 34-40.

Dale, P. & McLaughlin, J. (1999). *Land Administration*. New York: Oxford University Press.

Daude, C, Gutierrez, H & Melguizo, A (2013). What drives tax morale? A focus on emerging Economies*Review of Public Economic Journal*, 207(4), 9-40.

Hasseldine, J. (1993). How do revenue audits affect tax compliance. *Bulletin for International Fiscal Documentation*. 47, 424-435.

Hasseldine, J. & Li, Z. (1999). More tax evasion research required in new millennium. *Crime, Law and Social Change*, 31(1), 91-104.

Hasseldine, J. & Gammel, N. (2014) Tax payer's Behavioural Responses and Measures of Tax Compliance Gap A critique; Working Paper.

Hefferan, M. (2011).Property Taxation and Mass Appraisal Valuations in Australia – Adapting to a New Environment, (Abs 2007), 1–19.Ijagun *Journal of Social Management Sciences*. 3: 25-36.

Ishaya, D.Y., Dabo, .D & Makama, B. (2012). Enhanced Procedure for Property Tax Assessment and Collection in Kaduna North Local Government areas, Nigeria. *Being a paper presented at annual World Bank conference on land and poverty*: Washington DC April 23-26-2012.

James, S. & Alley, C. (2004).Tax Compliance, Self-assessment and tax administration. Working Paper.

James, S. & Nobes, C. (2000).*The Economics of Taxation*. Essex: Pearson education limited.

Kirchler, E.,Hoelzl, E & Wahl, I.(2008).Enforced Versus Voluntary Tax Compliance. The Slippery Slope Framework. *Journal of Economic Psychology,* 29, 210-225.

Kirchler, E. (2007). *The economic psychology of tax behaviour*. Cambridge, UK: Cambridge University Press.

Kuye, O. (2002). *Principle and Practice of Property Rating*: Revised Ed. Nigeria: Tony Terry Prints.

Loo, E.C. (2006). *The influence of the introduction on self-assessment on compliance behaviour of individual taxpayers in Malaysia*. Unpublished PhD thesis, University of Sydney.

Lubua, E. W (2014). Influencing Tax compliance in SMEs through the use of ICTs. *International Journal of*

*Learning, Teaching and Education Research*, 2(1), 80-90.

McCluskey, W. Franzsen, R., Johnstone, T. & Johnstone, D. (2003). Property Tax Reform: The Experience of Tanzania, *Our Common Estate*, RICS Foundation.

McCluskey, W. J. (1991).*Comparative Property Tax Systems*. England; Avebury.

McKerchar, M. & Evans, C. (2009). Sustaining Growth in Developing Economies through Improved Taxpayer Compliance: Challenges for Policy Makers and Revenue Authorities. *Journal of Tax Research,* 7(2), 171-201.

Mohani, A. (2001). *Personal Income Tax Noncompliance in Malaysia*. Unpublished PhD Thesis, Victoria University, Melbourne.

Mohani, A. & Sheehan, P. (2004). Estimating the extent of income tax noncompliance in Malaysia and Australia using the gap approach (part II). Tax National, 1st quarter. 20- 24.

Muhammad M.S & Ishiaku B (2013). An assessment of the prospects of property tax administration in Nigeria: A Case Study of Bauchi State Board of Internal Revenue *Elixir Social Science.* 59(2), 44-56.

Musgrave, R. A & Musgrave, P. B. (1976). *Public finance in theory and practice.* New York: McGraw hill.

Ogunba, O & Tomori, M .A (2006). An Appraisal of the Efficiency of Local Property Tax Administration in Nigeria (a case study of the five local councils in Ibadan Metropolis**).** *Journal of Land Use and Development Studies,* 2(1), 2006.

O'Sullivan, A. (1995). Urban Land Revenue and Taxation. *Urban Economics*, 34(2), 121-138.

Park, C., & Hyun, J. K. (2003). Examining the determinants of tax compliance by experimental data: A case of Korea. *Journal of Policy Modelling,* 25(8), 673-684.

Persson, A. (2008). *The institutional sources of statehood - Assimilation, multiculturalism and taxation in Sub-Saharan Africa.* Unpublished PhD thesis, Gothenburg University.

Richardson, J. (2008). *The business model: an integrative framework for strategy execution*. UK: John Willey and Sons Limited.

Sah, R. K. (1991). Social Osmosis and Patterns of Crime. *Journal of Political Economy*, 99**,** 1272- 1295.

Song, Y. D. & Yarbrough, T. E. (1978). Tax ethics and taxpayer attitudes: A survey. *Public Administration Review*, 442-452.

Shehata, M. & Mestelman, S. (2004). Attitudes, Incentives and Tax Compliance, Department of Economics Working Papers 2004-08, McMaster University.

Slemrod, J. & Bakija, J. (2001). *Taxing ourselves: A citizen Guide to the great debate over tax reform*. Cambridge: MIT Press.

Snavely, K. (1990). Governmental policies to reduce tax evasion: coerced behaviour versus services and values development. *Policy Sciences*, 23**,** 57-72.

Stiglitz, J. E. (2000).*Economics of the Public Sector*. New York: W.W. Norton & Company.

Torgler, B. (2003). Tax Morale, Rule-Governed Behaviour and Trust. *Constitutional Political Economy* 14, 119–40.

Torgler, B & Scheneider, F. (2007). The impact of tax morale and Institutional Quality on the shadow economy. Working Paper; IZA DP, No. 2541.

Umar, M.A, Kasim, .R. & Martin, D. (2012). An Overview of Property Tax Collection as a Tool for a Sustainable Local Government Reform in Malaysia. *Proceedings International Conference of Technology Management, Business and Entrepreneurship 2012 (ICTEMB2012)* Renaissance Hotel, Melaka, Malaysia 18-19 Dec 2012.