

Effect of Internally Generated Revenue Strategy and Personal Income Tax Administration in Adamawa State, Nigeria

Abstract

The paper assessed the influence of revenue generation strategy on personal income tax (PTA) administration of Adamawa state. Using survey research design and questionnaire, the data obtained were subjected to both descriptive and inferential analyses. The result revealed a positive and significant relationship between human resource management, information and communication technology, tax education and awareness and the administration of PTA in Adamawa. Hence, the study recommended that, the Adamawa state board of internal revenue service should pay more attention to staff development in addition to improving ICT infrastructures, tax education and awareness to enhance effective and efficient administration of personal income tax.

Keywords: Adamawa state, Human resources management, ICT, Personal income tax administration, Tax education

1. Introduction

In the current waves of economic hardship, it is generally agreed that, the diversification of national revenue base is the most viable way-out, particularly among the developing countries. Hence, tax is considered as one of the most important means that governments at various levels can generate revenue, if properly managed. Tax as an old concept, has received a considerable attention from both government and scholars. However, Yaro (2014) concluded that its administration is full of challenges. Some of the challenges as identified by Adeyeye et al. (2018), Akujuru and Chintuwa (2015), and Bwalya (2015) are recruitment of unqualified personnel, lack of human resources development, use of manual accounting system rather than automated accounting system, and lack of awareness among tax payers. The existence of these problems increases the tendencies of tax evasion, tax avoidance, high tax rate, tax fraud and poor enforcement of tax laws and as such contributes to insufficient tax revenue generation (Jensen & Di-Gregorio, 2017).

Given these challenges, the Adamawa state government is not exempted as stated by Adamawa State transition committee report (2019). The report stated among other things that, a lot of government money was wasted in the previous administration as the result of poor tax administration in the state. Thus, the motivation to assess the influence of the strategies adopted in administering personal income tax in Adamawa state. To achieve this objective, three (3) hypotheses were formulated and tested.

H₀₁: There is no significant relationship between human resource management and effective and efficient personal income tax administration of Adamawa State.

H₀₂: There is no significant relationship between the application of information and communication technology and effective and efficient personal income tax administration of Adamawa state.

H₀₃: There is no significant relationship between the rate of taxpayers' education and awareness conducted by the Adamawa state board of internal revenue service and effective and efficient personal income tax administration in the state.

The significance of this study lies in its contributions to knowledge in the area of personal income tax administration and revenue generation in Nigerian, since there is dearth need of economic diversification among the federating unit. More so, the study will inform policy makers especially the state governments in Nigeria in policy formulations that will be acceptable to its citizens at the same time enhance revenue generations for the government.

The remaining part of the study is structured as follows: Section 2 presents relevant literature reviewed. Section 3 described the methodology adopted for the study. Section 4 discusses the results of the empirical study, while Section 5 presents conclusion and recommendations.

2. Review of Related Studies

2.1 Conceptual review

The concept of taxation and tax administration has received a tremendous attention from both government and scholars of economist. Hence, personal income tax (PIT) is given different definitions based on the various objectives of the studies. Nigerian Personal Income Tax Act 2011 as amended, viewed PIT as tax charge on employee's remuneration. While Bala et al. (2017) defined PIT as a tax chargeable on income earned by an individual, hence refers to as Pay-As-You-Earned (PAYE). This is one of the direct tax and in Nigeria, it is collected by the state governments. An individual or its employer is expected to carry-out personal income assessment and remit the amount of tax payable to the state tax authorities. This concept is known as self-assessment. To arrive at chargeable income, various income exemptions and reliefs are allowed.

Under Section 33(1), the items that are tax exempted are National Housing Fund Contribution, National Health Insurance Scheme, Life Assurance Premium, National Pension Scheme and Gratuities. The various allowable rates are provided in this section of the law to guide the determination of taxable income. However, Enejo and Gabriel (2014) were of the view that, the administration of this tax provisions is bound by several challenges. Some of the challenges as identified by Onyekwelu and Ugwanyi (2014) and Enejo and Gabriel (2014) are tax evasion and tax

avoidance. To reduce the tendencies of this problems, Chen et al. (2020) and Altindag and Bilaloglu, (2021) were of the view that, proper application of ICT, personnel management, and tax payer's awareness are necessary. Hence, the need to examine the effect of these factors on the administration of PIT in Adamawa state.

According to Armstrong and Taylor (2014) and Rassol et al. (2019), the concept of personnel management is a well-known concept in management that involve the adoption and application of appropriate policies in engaging and maintaining human resource in achieving organizational objective. Therefore, the board is expected to give due attention to personnel management processes in order to maximize tax revenue generation (Henry & Temtime, 2010).

In the modern economy, the importance of the use of computer cannot be over emphasized. Tax administration, like all other public and private organizations, has at least two main types of processes that can be supported by ICT, these are operational processes and the supporting processes. The use of ICT in tax administration is cost efficient and effective in its management (Efunboade, 2014; Mashi, 2015). Its application in tax administration would help in minimizing possible human errors, time consumptions, accessible data, enhanced tax payers' voluntary compliance, thus curtailing tax evasion and expediting better decision making by the board. Hence, the importance of the implementation of electronic tax system.

Given adequate physical infrastructure will not guarantee payment of tax, otherwise taxpayers are willing to pay. Thus, Nugroho (2012) viewed the conscious and voluntary payment of taxes as a form of moral attitude is paramount in the concept of tax. In other words, taxpayers need to exhibit moral support towards tax payment. This can be achieved were the taxpayer is well informed about the benefits of the tax paid. Taxpayers' awareness defines the attitude in compliance with tax payments. The higher the level of awareness in accordance with the provisions of tax laws the higher the compliance rate (Nalendro, 2014). Understanding of tax obligations by taxpayer will improve tax compliance.

2.2 Empirical review

It is a well-known fact that, effective tax administration brings not only financial benefits but its serve as an economic regulatory mechanism. Hence, some of the previous empirical studies carried out on PIT administration and revenue generation are reviewed as follows. Tyoakosu and Awuhe (2017) conducted a study on PIT and revenue generation in Benue state over a period of ten (10) years (2007-

2016), and reported a positive influence of PIT on revenue generation in the state. In respect to electronic tax, Uyar et al. (2021) examined the association between the digitalization of government services and tax evasion via the moderation effect of information and communication technologies (ICTs). The results of the analysis indicated that the digitalization of government services play a significant role in alleviating tax evasion, hence improved tax revenue. In the same vein, Josiah et al. (2020) assessed the effect of data technology on tax administration in Nigeria and recommended the necessity for tax authorities to improve the utilization of data technology to be able to improve tax revenue. Furthermore, Michael (2016) in his study on the nexus of ICT and tax administration reported that, tax leakages were minimized through the use of ICT.

In response to the need of tax education and awareness among tax payers, Raj (2020) reported a positive and significant relationship between tax payers' awareness and tax compliance in Nepal. Also, Luke et al. (2019) studied the effect of tax education and enlightenment on total tax revenue. The results showed that tax education and enlightenment positively and significantly affect the total tax revenue. In a study conducted by Savitri and Musfialdy (2016), they scholars reported a positive and significant mediating effect of service quality on the relationship among taxpayers' awareness, tax socialization, tax penalties, compliance cost on tax compliance. Lestari and Wickasono (2017) analyzed the influence of taxpayers' awareness, knowledge of taxation, and taxpayers' attitude influence on docility taxpayers in KPP Pratama Boyolal. The result of the research shows that attitude and awareness of the taxpayers significantly influences taxpayer compliance. Furthermore, Anto et al. (2020) reported a positive and significant relationship between taxpayer awareness, tax knowledge and taxpayer compliance. Thus, the greater the rate of taxpayers' awareness and tax knowledge the better the taxpayer compliance. This was also in support of the findings of the earlier study by Rahayu et al. (2017) who reported the positive contribution of taxpayer's awareness, knowledge and understanding of tax laws in taxpayer compliance.

Rising from the empirical literature reviewed, the studies that have investigated the relationship between human resources (HR), information communication technologies (ICTs) and taxpayer education and awareness (TEA) as regards to generating revenue through Personal Income Tax are rather too scanty or sparse. The few studies conducted in Nigeria were mostly from the southern part and southeast of the country, therefore the motivation of this study to observe the influence of revenue generation strategy of Adamawa state on personal income tax administration of the state.

2.3 Theoretical review

Several theories were used by previous researchers to explain the concept of tax administration. Some of the theories as listed by Appah (2011) and Jhingan (2012) are Ability-to-pay theory, Benefit-received theory, and Theory of crime. Hence, this study adopted Benefit received theory to analyzed and explain PIT administration in Adamawa state.

This theory believes that, tax should be charge base on the benefit received. Thus, Bala et al. (2018) were of the view that, the state government should levy taxes on tax payers based on the benefit conferred on them. This implies that, higher the benefits the higher the tax payment. Even though this principle seems fair, it has been severely criticized by various scholars on the ground that; if the state governments maintains the concepts of benefits conferred and the benefits derived, tax payer can be able to pay taxes. However, it contradicted the basic principle of taxation as a mandatory and compulsory contribution made by citizenry to the public authorities to meet the expenses of the government and the provisions of general benefit. There is no direct quid pro quo in the case of a tax. Furthermore, majority of government expenditure are for public benefit, thus it is not possible to estimate the benefit enjoyed by a particular individual every year to ensure tax with benefit derived is justifiable. Also in practical application, it implies that, less privilege citizens will have to pay the heaviest taxes, because they benefit more from the services of the state. Thus, contravenes the principle of justice, equity and fairness in taxation.

3. Methodology

The study adopted Survey research design to define the structure and strategy of the study. The target population was all the staff of Adamawa SBIRS as at 31st December, 2020 which were six hundred (600) in number from ten (10) directorate. Out of the ten directorate, ten (10) employees were selected from each directorate base on their grade level from top downward, totaling sixty (60) employees as a sample size. A structured questionnaire was used to obtain the required information from the respondents, and analyzed using statistical tools such as mean, standard deviation, minimum and maximum values, Pearson moment correlation, and regression analysis.

The model developed to evaluate the effect of human resource management (HRM), information and communication technology (ICT), and tax education and awareness (TEA) on effective tax administration (PTA) is presented as follows:

$$Y = F (HRM, ICT, TEA) \dots\dots\dots(1)$$

$$PTA_{it} = \beta_0 + \beta_1 HRM_{it} + \beta_2 ICT_{it} + \beta_3 TEA_{it} + e_{it} \dots \dots \dots (2)$$

Table 1: Variables identification and measurement

Label	Variables	Descriptions	Sources
PTA	Personal income tax administration	Effective, fairness and compliance	Oseni and Ehimi (2019)
HRM	Human resources management	Incentive, employees training, selective hiring (recruitment) and job security.	Govand and Nabaz (2021).
ICT	Information technology	E-participation, future orientation, Gov't adoptability, Gov't response to change and legal framework for ICT business model	WEF (2020).
TEA	Tax education and awareness	Tax payer attitude, tax payer perception and tax payer gender.	Eragbhe and Aronmwan (2015).

4. Results and Discussions

The results of the analyses are presented in tables which consisted of the diagnostic test, descriptive statistics, and regression analyses.

Table 2: Descriptive statistics

Variables	Mean	Std. Dev.	Min	Max
PTA	12.335	5.134	6.000	30.000
HRM	20.350	6.061	10.000	49.000
ICT	20.015	5.766	10.000	41.000
TEA	19.490	6.652	10.000	45.000

The result of the descriptive statistics presented in Table 2 revealed that, personal income tax administration (PTA) has a mean value of 12.335, a minimum score of 6.000 and a maximum score of 30.000, while the standard deviation stood at 5.134. The mean value of 12.335 depicts that on the average, personal income tax administration adds up to 12% of the IGR of the State over the period of the study with the minimum contribution of 6% and maximum contribution of 30% at a given ICT structure, human resources development and tax education and awareness. The standard deviation of 5.134 indicates that there is a great gap between the revenue board effort in the administration of personal income tax in the State and the taxpayers. Even though the index is positively significant, the revenue board need to put more effort to drive the contribution of PIT.

Additionally, the descriptive result in Table 2 shows that human resource management (HRM) has a minimum value of 10.000 which portrays that 10% of the board members has a poor human resource management practice which may leads to poor performance of the employees of the board. The mean of 20.350 (20%) indicates the improvement in human resource management in of the board. The board

can still do better if it strategically put in place policies and procedures that would improve the working condition of its staff. The result further shows that information and communication technology (ICT) has a mean score of 20.015, the minimum, maximum and standard deviation are 10.000, 41.000 and 5.765 respectively also reveal a fairly application of ICT to the personal income tax administration in the State. With regards to taxpayer's education and awareness (TEA), the result shows the mean value of 19.490, a minimum value of 10.000, and a maximum of 45.000 and standard deviation of 6.652.

To identify the existence of multicollinearity and autocorrelation among the variables of the study, Pearson moment correlation and variance inflation factor were adopted, hence the results are presented in Table 3 and Table 4 respectively.

Table 3: Correlation matrix

Variables	PTA	HRM	ICT	TEA
PTA	1.000			
HRM	0.453	1.000		
ICT	0.531	0.489	1.000	
TEA	0.702	0.418	0.647	1.000

The result of the statistics in Table 3 are below 0.8, which is a critical level for considering the multicollinearity problem (Hair et al., 2009). Therefore, there is no multicollinearity problem among the variables of the study. As can be seen, the highest correlation is between PTA and TEA with positive correlation coefficient of 0.702. This is confirmed by the result of variance inflation factor (VIF) presented in Table 4. The value of VIF must be less than 10, and the value of tolerance must be less than one (1) to conclude that there exist no multicollinearity problem (Gujarati, 2008). The result in Table 4 shows that there is no multicollinearity problem among the variables as the computed VIF is less than ten (10), and the value of tolerance is less than one (1).

Since the result of the analyses of Pearson moment correlation, variance inflation factor, and tolerance coefficient indicate the absence of multicollinearity and autocorrelation, the study further conducted regression analyses. The results of the regression model of the study which looks at the effect of revenue generation strategy on personal income tax administration is presented in Table 4.

Table 4: Coefficient of Variables from the Test of Hypotheses

Mode	Unstandardized	Standardize	t-value	Sig.	Collinearity	
1	Coefficient	Coefficient			Statistics	
	B	Std. Error	Beta		Tolerance	VIF

1	(Constant)	-1.106	0.882		-1.254	0.000		
	HRM	0.129	0.041	0.000082	3.146	0.002	0.744	1.354
	ICT	0.033	0.051	0.000015	0.647	0.003	0.524	1.910
	TEA	0.588	0.043	0.001075	13.674	0.025	0.568	1.762

F = 127,402, (P< 0.000) and R²= 66

Source: Researcher’s computation using SPSS version 020, 2021

The result of the analysis presented in Table 4 shows the coefficient of determination (R²) of 66%. This implies that the measure of tax administration included in the model accounted for 66% variation in the personal income tax revenue of the Adamawa state board of internal revenue service over the period under the study, while 34% was explained by other factors. The p-value of the intercept is 0.000 at 5% significant level is significant, thus, the model is significant and has a good explanatory or predictive power.

In respect to the variables of tax administration, the result presented in Table 4 shows that ICT has a positive and significant effect on PTA of the board over the period under the study, with p-value of 0.003 at 5% significant level and B-value of 0.033. This implies that any advancement in the use of ICT by the board in personal tax administration by 1% will lead to a significant improvement in the administration of personal income tax, hence improve revenue generation. This provides an evidence for rejecting the null hypothesis which states that, ICT has no significant effect on tax administration.

Furthermore, the result in Table 4 revealed that human resource development (HRM) positively and significantly affects personal income tax administration of the board with B-values of 0.129 and p-value of 0.002 at 5% significant level. This implies that the improvement of human capital development of the board will also positively and significantly improve the management of personal income of the state. Hence the rejection of the null hypothesis and the conclusion that, human resource management of Adamawa state board of internal revenue service has a positive and significant influence on personal income tax administration of the state. This provide evidence that human capital development improves corporate performance positively. In the same vein, the result of the regression analyses presented in Table 4 indicates that, tax education and awareness has a positive and significant effect on the administration of personal income in Adamawa state, with B-value of .588 and p-value of 0.025 at 5% significant level. This leads to the rejection of null hypothesis three, hence concluded that, tax education and awareness has a positive and significant effect on personal tax administration of Adamawa state board of internal revenue service.

5. Conclusion and Recommendations

The study assessed the effect of revenue generation strategy on personal income tax administration of Adamawa state. Using survey research design and questionnaire, the data obtained were subjected to both descriptive and inferential analyses. Thus, the result of the study revealed that the application of information and communication technology, effective human resources management and tax education and awareness have positive and significant effect on effective administration of personal income tax in Adamawa state. Hence, the conclusion that, adequate deployment of ICT infrastructure with a regular personnel development couple with adequate taxpayers' education and awareness on the need of tax payment will improve personal income tax administration in the state, consequently increases government internally generated revenue.

Thus, in order for the state board of internal revenue service to improve internally generated revenue through tax, the board should deploy adequate ICT infrastructure, engage in regular manpower development, with massive tax education and awareness. This will reduce the rate of tax avoidance and tax evasion and also improve good relationship between tax authorities and tax payers thereby encouraging tax compliance. Since human resources management, ICT and taxpayers' education and awareness were found to have a positive and significant influence on personal income tax administration in the state.

Consent

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

References

- Adeyeye, G., Adeoye, A., & Adeyeye, A. (2018). Personal income tax administration in the rural communities: A study of selected Local Government areas in Ogun State, Nigeria. *Annals of Spiru Haret University Economic Series*, 18(2), 25-52.
- Akujuru, C. A., & Chintuwa, N. (2015). Impact of human resources development and employees' performance in central bank of Nigeria (2007-2014). *Arabian Journal of Business Management*, 6(1), 186-192.
- Altindag, E., & Bilaloglu, (2021). The impact of new generation management approaches on the firm performance: The moderating role of strategic human resource management applications.
- Appah, E. (2011). Cooperate tax incentive: A tool for the economic growth and development of Nigeria. *International Journal of Social Sciences*, 3(2), 20-27.
- Armstrong, M., & Taylor, S. (2014). *Armstrong's handbook of human resource management practice*. Kogan Page Publishers.
- Bala, A., Yusuf, E. E., & Yakubu, S. (2018). The problems of personal income tax on revenue generation in Gombe State. *International Journal of Business and Management Invention*, 7(7), 20-28.
- Bwalya, K. J. (2015). *Factors affecting adoption of e-government in Zambia*. Gaborone: University of Botswana.
- Chen, Q., Wang, C. H., & Huang, S. Z. (2020). Effects of organizational innovation and technological innovation capabilities on firm performance: Evidence from firms in China's Pearl River Delta. *Asia Pacific Business Review*, 26(1), 72-96.
- Efunboade, A. O. (2014). Impact of ICT on tax administration in Nigeria. *Computer Engineering and Intelligent Systems*, 5(8), 26-29.
- Enejo, S. S., & Gabriel, T. (2014). Taxation and revenue generation: An empirical investigation of some selected states in Nigeria. *Journal of Poverty, Investment and Development*, 4(1), 102-114.
- Eragbhe, E., & Aronmwan, J. E. (2015). Taxpayers income, tax payers' attributes and personal income tax compliance. *Journal of Financial Economics*, 95(1), 41-61.
- Govand, A. & Nabaz, N. A. (2021). The impact of human resource management practice on organizational performance. *International journal of Engineering, Business and Management*, 7(2), 24-31.
- Gujarati, D. N. (2008). *Basic econometrics* (4th Ed.). London: McGraw-Hill.

- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). *Multivariate data analysis* (3rd Ed.). New York: Macmillan.
- Henry, O., & Temtime, Z. (2010). Recruitment and selection practice in SMEs: Empirical evidence from a developing country perspective. *Journal of Advances in Management*, 4(6), 18-26.
- Jensen, A., & Di-Gregorio, E. (2017). A Study on personal income tax: Preliminary finding. Zambian Revenue Authority Research and Policy Department. Reference number: S-41421-ZMB-1.
- Jhingan, M. I. (2012). *Money, banking, international trade and public finance*. New Delhi: Vrinda publication.
- Josiah, M., Gbenga, E., Okoro, E. O., Adeboye, O. M., & Maduku, C. (2020). Information technology and tax administration in Nigeria. *AE-Funai Journal of Accounting*, 6(5), 72-81.
- Luke, N. O., Rufus, I. A., & Emmanuel, G. O. (2019). Role of tax education and enlightenment on tax revenue growth in Nigeria. *Journal of Taxation and Economic Development*, 2(3), 104-127.
- Mashi, K. (2015). Nigerians can now pay their tax online. Retrieved from: [www.mynewswatchtimesng.com/Nigerian-can-now-pay-their](http://www.mynewswatchtimesng.com/Nigerian-can-now-pay-their-taxes-online) taxes-online.
- Nalendro, T. I. (2014). Affecting factors compliance with paying taxes for entrepreneurs with environment as a moderating variable. Central java, Semarang, Indonesia: faculty of economics and business, University Diponegoro.
- Nugroho, R. A. (2012). Factors affecting willingness to pay taxes with taxpaying awareness as intervening variables: A study of people taxpayers' person who performs free work registered at Semarang Teng primary tax office. *International Journal of Advanced Research*, 9(2), 32-44.
- Onyekwelu, U. L., & Ugwanyi, U.B. (2014). Assessing personal income tax Act 2011: Effect on revenue generation in Nigeria. *International Journal of Economics and Finance*, 6(9), 199-212.
- Raj, N. A. (2020). Taxpayer awareness and understanding on taxpayer compliance in Nepal. *Management Dynamics*, 23(1), 163-168.
- Rassol, S. F., Samma, M., Wang, M., Zhao, Y., & Zhang, Y. (2019). How human resource management practices translate into sustainable organization performance: The Mediating Role of Product, Process and Knowledge Innovation. *Journal of Leadership & Organizational Studies*, 19(3), 486-500.
- Tyoakosu, S. A., & Awuhe, P.O. (2017). Personal income tax and the performance of internally generated revenue in Benue state- Nigeria. *Nigerian Journal of Management Sciences*, 6(1), 11-24.
- Uyar, A., Nimar, K., Kuzey, C., Shahbaz, M., & Schneider, F. (2021). Can e-government initiatives alleviate tax evasion? The moderation effect of ICT. *Quarterly Journal of Contemporary Research*, 7(3), 45-53.

World Economic Forum (WEF) (2020). Global competitiveness index. <http://reports.weforum.org/> (accessed 25 May 2020).

Yaro, I. (2014). Recruitment and selection in the Nigerian public service: Nature, challenges and way forward. *British Journal of Economics, Management and Trade*, 4(7), 1005-1017.

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