.Research Article

The Role of Artificial Intelligence and Research in Promoting Taxpayer Base and Behaviour

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Abstract:

Artificial Intelligence (AI) is an emerging field that should be encouraged because of the enormous benefits it has to offer. In the world today, Artificial Intelligence is being introduced in practically every aspect of society and taxation is not exempt. The benefits of applying Artificial Intelligence to taxation cannot be over emphasised. Its application will guarantee accuracy, reliability, and sustainable revenue generation to the extent of positively influencing taxpayers' behaviour. For instance, issues such as multiple taxation and incomplete taxpayer data can easily be resolved by the application of Artificial Intelligence with the effect of an improvement in the confidence of the taxpayer. Unfortunately, the Nigerian tax structure is still grappling with the primitive measures set by the taxing authorities regardless of the enormous potential and advancements in the digital world. The object of this paper is to discuss the potentials of artificial intelligence in taxation and how marketing research can aid in determining where it is well needed. The authors also found that the government will spend less if Artificial intelligence is promoted by government in taxing systems. However, given the non-diversified revenue base in Nigeria, there is need to count the cost of wide spread adoption of Artificial intelligence in relation to the benefits in a taxing system. The paper finally concludes that the introduction of Artificial Intelligence will increase revenue base by, supporting positive tax payer's behaviour towards the payment of their taxes.

Keywords: Artificial Intelligence, Marketing Research And Taxpayer Behaviour

Introduction:

In general terms, taxation is a compulsory financial levy or fees paid by individuals or corporate bodies to an authorised body which in most cases is the government. What these Individuals or entities pay is known as "Tax" and as such, these individual or en as who pay tax are referred to as "Taxpayers".Taxation is one of the means by which the government generates revenue to provide or maintain basic infrastructure or services to members of the public such as providing health care facilities, free basic education, road construction and maintenance, paying off government debts, paying off salaries etc. Tax- base is the threshold set by the taxing authority for the payment of tax. It is the minimum amount or percentage a taxpayer pays as tax. The level of income of a given population in most cases is what determines the tax base. In Nigeria, there are several laws and institutions /regulatory bodies set up by these laws to regulate taxation. For the purpose of this chapter, the relevant laws include the following:

1. The Federal Inland Revenue Service (Establishment) Act 2007,

2. The Personal Income tax act cap p8 lfn 2011.

The Federal Inland Revenue Service (Establishment) Act, 2007, provided the framework and legal backing required for setting up the Federal Inland Revenue Service (FIRS). The Personal Income Tax Act, 2011 established the Joint Tax Board, the State Board of Inland Revenue (SBIR) and the Local Government Revenue Committee. The Tax payer behaviour can be defined as the attitude or disposition of taxpayers to the payment of their taxes. Various factors influence a taxpayer's behaviour towards payment of tax and these factors have been given some theoretical considerations. These factors include tax equity, trust in taxing authorities, convenience, personal norms and morals etc. Generally, it is either the taxpayer trusts the government enough to pay tax or is discouraged from paying tax because the quality of services provided by the government to the general public is poor (Braithwaite Vs Dancing with Authorities)¹ Hence, instances of non-compliance, and evasion arises, leading to losses suffered by the taxing authority. One of the glaring effects of this is lesser revenue for the taxing authorities at all levels, which in most cases, is the government. The taxing authorities find it difficult effectively investigate to tax compliance issues because they occur on a very large scale. Therefore, various fields of research

and disciplines of study are focused on understudying tax systems, creating a link between taxation and other fields of study and research and providing solutions to tax issues. One of these fields of research is in the study of Artificial intelligence. By intelligence, we mean non- human, physical or mechanical such as robotic intelligence. Artificial intelligence is the simulation of human intelligence processes (like acquisition of information and rules for its use, reasoning and self-correction) by machines, especially computers. In other words, it is the use of computers by tax officials to enhance tax operations and services. Artificial intelligence is a technique of making machines intelligent while utilizing automation to replicate human intelligence to improve analysis and decisionmaking capabilities of machines(Zhuowen 2018).¹ Artificial intelligence was born in 1948 with the invention of two small machines known as robots by William Gray Walter. These robots were recognised to respond to stimuli. In 1950, it was recognised that machines of such nature could transmit information, communicate and process information like humans. In 1956, the term artificial intelligence was proposed and born as a discipline (Bizzaro and Dorrain 2017).¹This chapter seeks to establish a link between taxation, artificial intelligence and marketing research and how this can promote taxpayer -base and behaviour. The chapter provides an analysis of the tax system in Nigeria, the legal and institutional framework for tax regulation, the role of intelligence in taxation and the link between marketing research and taxation.

Legal And Institutional Frameworks For Tax Regulation In Nigeria:

The courts in Matthew v Chicory Marketing Board defined tax to mean 'a compulsory exaction of money by a public authority for public purposes, enforceable by law, and is not a payment for services rendered'. (Mainland Diary Product sales Vs Crystal Diary Limited)¹ The tax system in Nigeria is a three-way in

nature. It comprises of tax policy which forms the basis for tax law, tax legislation and tax administration and all these are carried out by the implementation of the law through regulatory bodies and agencies. To establish an effective tax system for national development in Nigeria. appropriate tax policies and implementation of legislation which are necessary have been put in place. The development of the tax structure in Nigeria can be traced to a number of factors. These factors are broadly categorised as political, social and economic. The pace of economic development of the country and the level of income of its citizens set the scope of taxation or what we call tax base. The political consideration relates to the system of government in Nigeria- a federation of thirty sis States with more than Seventy-Six Seven hundred and local Government Councils. (Constitution of Nigeria 1999) ¹.Another social consideration is the poverty levels and lack of middle level income earners in Nigeria There is also the poor relationship between private- led enterprises and public administration as the former lack much government support. All these indicators and disparities are hardly present in developed countries such as the UK and Canada, which are more private sector- led economies with heavy support for the entrepreneurial class than Nigeria. This accounts for the poor level of tax compliance and awareness in Nigeria as against developed nations some above mentioned.(Kiobel and Nwokah).¹Nevertheless, generally, the objectives of a tax system are to promote fiscal responsibility and accountability, to facilitate economic growth and development, to provide the government with stable resources for the provision of public goods and services, to address inequalities in income distribution, to provide economic stabilization and to correct market failures or imperfections. (A C Dike)¹ The power to tax is vested in the government but this power can be delegated to an organised private sector or consultant. This is based on the assumption that every citizen is entitled to have

his or her life, property and liberty protected by the state(1999 Constitution)¹. In Nigeria it is not possible to acerbating with precision whether Government realises much when it drives tax collection directly than through private sector or consultants as both may be as corrupt. And for the state to live up to this expectation, it needs resources which, are mostly gathered from taxes. Generally, in the absence of any constitutional constraint, the power to tax is unlimited, subject to the will of lawmakers and the discretion of the administering authority. However, in Nigeria which is a federation, each tire of Government has its sphere or jurisdiction for taxation This may not be so in unitary States such as Norway but certainly so in UK as some taxing matters are devolved respectively to the Scotland and Wales from England. (Devolution.GoV Uk)¹

The decision of a government to impose or refuse a certain kind of tax is also subject to the political and economic advantage that may flow from it. $(Akanle 2000)^1$ Thus, the state has the power to determine who is subject to paying tax, what is the subject to being taxed, who is exempted from paying taxes and this enables Government to make changes to tax base. However, this power must be exercised in good faith while upholding the principles of equality, public trust, proportionality and ability to pay, non-retroactivity, constitutional limitations, tax payers rights and international agreements (Abdulrazag 2014).¹Generally, taxation is targeted at building government treasuries for the purpose of enhancing the quality of life of its citizens, paying off government debt and so on. Even though the power to tax is vested in the government, there is a need to regulate these powers through the instrument of law and regulatory bodies (herein referred to as Legal and institutional framework for regulation) taxes) The essence of tax regulation as carried out by these regulatory bodies is to set standards and control or curb instances of tax noncompliance. When it comes to tax regulation, specific laws have been enacted to address

taxation. As mentioned earlier, the laws include the Federal Inland Revenue Service (Establishment) Act 2007 setting up the Federal Inland Revenue Service (FIRS), Personal Income Tax Act 2004, setting up the Joint Tax Board, the State Board of Inland Revenue (SBIR) and the Local Government Revenue Committee (OJO&Abdulrazak).¹ The next section will explain some of the functions of these laws with their regulatory institutions.

(I)Federal Inland Revenue Service (Establishment) Act 2007 And The Federal Inland Revenue Service (Firs):

The Federal Inland Revenue Service (FIRS) is a body set up by the Federal Inland Revenue Service (Establishment) Act 2007). The objective of the FIRS is to control and administer different taxes and laws specified in the First Schedule of the Act or other laws made or to be made from time to time by the National Assembly or other regulations made there under by the Government of the Federation and to account for all taxes collected.¹ The function of the FIRS is to access, collect, account and enforce payment of tax by persons, companies, enterprises chargeable with tax. The FIRS also collaborate with relevant ministries, agencies of the government and law enforcement agencies to review tax regimes, promote the application of tax revenues to stimulate economic activities and development. It also carries out examination and investigation with a view to enforcing compliance with the provisions of the Act. From time to time, the FIRS determine the loss incurred by the government from tax fraud or evasion or other losses from tax waivers and other sources. With this, measures are adopted to prevent and detect non-compliance, to the extent of tracing and confiscating assets derived from tax evasion. One function of the FIRS which is of importance to this chapter is the maintenance of database, statistics, records and reports on persons, organisation, proceeds, properties, documents or other items relating to tax administration. The second is to undertake

and support research on similar measures with a view to stimulating economic development, determine the manifestation, extent, magnitude and effect of tax fraud, evasion and other matters that affect effective tax administration and make recommendation to the government on appropriate intervention and preventive measures.¹ The reason for its importance will be highlighted subsequently. The challenge of FIRS is that of enforcement and implementation by trained staff. Another challenge is tax evasion by government and its agencies and underreporting. final challenge The is inadequate promotional and creative tax systems that embody artificial intelligence, which would make tax payment and collection effortlessly by the government.

(Ii) Personal Income Tax Act 2011 And The Joint Tax Board:

The Personal Income Tax Act (PITA) 2011 established the Joint Tax Board (JTB) (. PITA $(2011)^1$ The Act does not explicitly state the functions of the JTB as it does for other regulatory bodies. Rather it provides that the JTB shall exercise the power or duties conferred on it by express provisions of this Act, and any other powers and duties arising under this Act which may be agreed by Government of each territory to be exercised by the Board. It also provides that the JTB shall exercise powers and perform duties conferred on it by any enactment of the Federal Government; imposing tax on the income and profits of companies, or which may be agreed by the Minister to be exercised or performed by it under the enactment in place of the Federal Board of Inland Revenue. The JTB is also to advise the Federal Government, on request. in respect of double taxation arrangement concluded or under consideration with any other country, and in respect of rates of capital allowances and other taxation matters having effect throughout Nigeria and in respect of any proposed amendment to this Act (PITA). In addition, the JTB is to use its best endeavours to promote uniformity both in the application of this Act (PITA) and in the incidence of tax on

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individuals throughout Nigeria; and impose its decisions on matters of procedure and interpretation of this Act (PITA) on any State for purposes of conforming with agreed procedure or interpretation. (*PITA 2011*).¹The integration of Corporate and personal income taxes in the same legislation poses serious enforcement problems.

(Iii) State Board Of Inland Revenue (SBIR):

The State Board of Inland Revenue Service (SBIR) is established by the Personal Income Tax Act 2004 (PITA 2011).¹ The SBIR is responsible for ensuring the effectiveness and optimum collection of all taxes and penalties due to the Government under the relevant laws; doing all such things as may be deemed necessary and expedient for the assessment and collection of the tax. The SBIR is also to account for all amounts so collected as taxes, make recommendations where appropriate, to the Joint Tax Board on tax policy, tax reform, tax legislation, tax treaties and exemption as may be required, from time to time.¹The various States in Nigeria are responsible for the management and control of the State Board of Inland Revenue and the taxable items are within those provided in the constitution for the States,

(iv) Local Government Revenue Committee (The Revenue Committee):

The Local Government Revenue Committee is established by the Personal Income Tax Act $2004.^{1}$ The Local Government Revenue Committee is responsible for the assessment and collection of all taxes, rates and fines under its jurisdiction and also renders account of all amounts collected in a manner prescribed by the chairman of the local government. The Revenue Committee is autonomous to the local government it regulates. The question then is how do these regulatory bodies influence tax payer behaviour? In countries like Ireland where the tax system to a great extent is based on selfassessment, the functions exercised by tax administrators largely depends, on the voluntary

compliance of the taxpayer and so there is a high potential of influencing taxpayer behaviour to compliance.¹ In Nigeria, the reverse is the case as the regulatory agencies at various level of government are saddled with the task of determining what a taxpayer ought to pay as tax. This method can adversely influence the disposition of the taxpayer towards compliance due to lack of trust and fairness in tax distribution by taxing authorities. Also, the behavioural research has shown that complexity in a taxing system can lead to non-compliance as people are more inclined to complying if the opportunity for compliance is made easy. If complexities are reduced, compliance will be much easier. Some level of assistance aimed at reducing unintentional non-compliance can be introduced. (Rahayu and Others 2017)¹

The Role Of Artificial Intellegence In Promoting Tax Payer- Base Behaviour Intelligence In Taxation:

The difficulties associated with administering complex tax systems particularly in developing and advanced economies are enormous. The need for a sophisticated tax system, shortage of skilled tax administrators, the high degree of tax non-compliance has led many taxing authorities to resort to other means for assistance even with the existence of regulatory bodies. The FIRS which is the foremost tax regulatory agency in Nigeria is saddled with a lot of responsibilities to be carried out by human agents as set out in the Act. Artificial intelligence is now an option in fast growing economies. Various studies have aimed at pointing out the link between artificial intelligence and taxation.(Richard 1989) Firstly, tax law is considered to suit artificial intelligence because of its many levels of commercial abstraction that are artificial, formal, having no equivalent to the natural human experience (as some other aspects of law) and because by legal standards, tax law and practice is very technical aspect of law. Secondly, Artificial intelligence has nothing to the with real experiences encountered by human beings, rather, it deals with complex and technical subjects which the ordinary human may find daunting (Mc Carty 2019).¹Thirdly, artificial intelligence could still be commercially useful, having a role to play in taxation if applied properly. It can play a supplementary role to the human agents employed for such job as it can assist tax authorities with tax management processes and with the assistance of data analyst, the information gathered can help deduce anomalies and mitigate risk Fourthly tax regulation agencies can easily predict non-compliance to maximize revenue and fight tax evasion. Fifty, the use of artificial intelligence is novel to the Nigerian tax system. Although, the Federal Inland Revenue Service (FIRS), which is the major tax regulatory agency in the Nigeria has, developed and deployed e-solutions to ease tax payment, the FIRS has not advanced to the point of making use of full-blown artificial intelligence in assisting tax officials in handling tax and tax issues However, Countries such as China has begun promoting the practice of artificial intelligence in taxation through the introduction of tax robots, face to face tax intelligence, robots tax software and AI voice answering machines This shows that there are lessons to learn from the development of Artificial Intelligence in China which will promote the widespread adoption of AI in Nigeria Sixthly, tax robots have proven to be 12,000 times more efficient, contributing to solving 54.9% of workload and mitigating the burden on workers (Ding 2017).¹ This shows that the demand for the use of AI in taxation is growing as this will assist tax regulatory bodies and agencies in maximizing their abilities to collect and analyse data for marketing research, adequate tax reporting, easy adaptation to changing policies and also checkmating tax non-compliance. There are however, some challenges the application of artificial intelligence may encounter when applied in tax law and taxation issue in Nigeria. These are:

- ٠ Expected rationality dealing with in complexities ambiguities, or mere interpretation of issues are the short comings successfully applying artificial of intelligence.
- Also, incorporating artificial intelligence into the practice of taxation may not be cost effective and as such, would exceed the potential gains in setting up and applying artificial intelligence to tax law (Kuznaicki)¹
- Poor technological advancement, Poor infrastructure and lack of well-trained personal may pose serious obstacle to the advancement of artificial intelligence in Nigeria.
- Lack of political will to transits from analogue way of doing things to digital may be a barrier to the adoption of Ai inn Nigeria
- Poor electricity supply network and the unending reform in the power sector is a serious barrier as the robotic may need electricity to function optimally (S. C. Dike 2019)¹.

Nevertheless, the FIRS could leverage this technology as a supplementary measure to achieving its function of maintenance of database, statistics, records. Consequently, marketing research will assist in pointing out other areas where the use of artificial intelligence is most needed to support the taxing system. the tax payer behaviour in Nigeria The Administration of income tax in Nigeria as in some other developing countries is characterized by low compliance level and despite Nigeria's human and natural endowment as well as economic potentiality, the country has continued to record one of the lowest tax compliance level in Africa(Chattered Institute of Taxation 2010). Even with all efforts through the various tax reforms (Tax Reforms in Nigeria)¹ undertaken by Nigerian government to increase tax revenue over the years, prior statistical evidence has proven that the contribution of income taxes to the government's total revenue remained consistently low and is relatively shrinking.

However, of all the taxes, personal income tax has remained the most disappointing, nonperforming, inefficacious and problematic in Nigerian tax system (Kiobel and Nwoka 2009)¹. An individual's attitude towards tax system may predict his tax compliance behavior. Theoretically, many writers have indicated that attitude is a partial indication of behavior (Ajzen 2009)¹. Attitude towards an event, object, function or person may be favorable or unfavorable. Individuals evaluate an event or object positively or negatively; hence positive and negative evaluation is the main dominant characteristic of an individual's attitude. Taxpayers who have favorable attitude towards tax evasion are expected to be less compliant and equally taxpayer with unfavorable attitude is likely to be more compliant(Kirchle, Hoelzl& Wahl (2008))¹. It is argued from the perspective of the theory of functional attitude that the motive of the attitude will determine whether it will be positive or negative (Bobbek $1997)^1$. The taxpayer, whose motive of attitude towards tax system is to express his belief in the system, is expected to judge the fairness of the system objectively and the taxpayer whose attitude is motivated with what benefit to derive from the system may label tax system fair if he is benefiting from the systemBobbek 1997)¹. The dimensions of attitude towards tax evasion include: attitude to one's own tax evasion which is referred to as tax ethic, fairness of tax system, attitude to other people's tax evasion and attitude to general crime (Ericksen and Fallen1996)¹. There are empirical evidences suggesting that ethical value may play significant role in the compliance decision of an individual taxpayer. In line with this, it is submitted that individuals with stronger ethical mind may have favorable compliance attitude as they will regard complying with rules and regulations as an obligation that must be honored (Woong2008)¹. Furthermore, it is also indicated that the ethical beliefs of individuals are the best means of improving tax compliance (Bobbek and Harfiled2008)¹. Studies show that

tax compliance is higher where there is a stronger belief that tax evasion is unethical (Recker's, Sanders and Roark1994) Taxpayers who see tax evasion as unethical are likely to comply more than those who regarded tax evasion as not unethical (Maaaf 2004)¹. Also, the perception of the taxpayers about the fairness of the tax system is recognized as an important factor that can have significant influence on tax compliance behavior. The tax system that is perceived as unfair by the citizens may likely be less successful and this will encourage the taxpayers to engage in noncompliant behavior (Richardson 2005)¹.It is suggested that fairness can be conceptualized as distributive justice, procedural justice and retributive justice (Wenzel 2004)¹. Distributive justice is concerned with fairness in exchange of resources in both the benefit and cost, while procedural justice refers to fairness in the process of resources distribution and retributive justice is concerned with about the fairness in appropriateness of sanctions when rules are broken. However, it is stated that research relating to fairness and tax compliance only focuses on distributive justice (Kicheler 2007)¹With regards to distributive justice, comparisons are made on the basis of individuals, groups and societal level and at individual level; taxpayers will be interested in the fairness of his tax burden, if it is perceived to be too high compare to other individuals' tax burden, his rate of compliance is likely to decrease. At the group level, the taxpayers are interested on the fairness of treating their groups compared to other groups, when a group perceives that it is not fairly treated in respect to tax burden in relation to other groups, that may lead to tax noncompliance in the group. At societal level, the taxpayers are concerned with the fairness of tax system of the whole society, where they perceive the tax system to be unfair, tax noncompliance is likely to increase in the society¹. Respondents believe that when the tax system is unfair, they are not more likely to comply with the tax laws (Linsted $1976)^1$.

Equally, taxpayers need and ability to pay are the important factors that determine the fairness of tax system(Pocanno 1984)¹.

WhatFactors Influnce Taxpayer Behaviourin

Nigeria. ?

Taxpayers' behavior cannot be explained only by identification and knowledge of the system but also by the influence factors acting in close contact and mutual interrelation. Therefore, in most cases, the taxpayers using their own instruments assess the tax policy and the incidence thereof on their living standards as well as on the national economy in general. Assessment, at the level of taxpayers, is not uniform ¹.It takes individual forms which can be distinguished by the level of knowledge of the legal framework, the cultural level, faith, morals, customs and the abilities of the assessor to interpret the law, thus generating its own perception on the tax system. Subsequently, the taxpayers socialize and, depending on their typology, they homogenize and shape their tax behavior. Tax authorities have certain objectives to achieve with regard to efficiency and effectiveness of collection of taxes and duties owed by taxpayers. Based on the constant interaction existing between tax authorities and taxpayers, mutual experiences are gained, positive and negative, sometimes subjective, both by taxpayers as well as by tax authorities. A taxpayer shows predisposition for observing legal provisions as long as the exchange between paid amounts and the services provided by authorities is fair. The quality of public institutions has a strong effect on taxpayer's behavior. Below are other factors that influence taxpayer's behavior.

Marketing Research And Taxation:

Marketing research is the planning, collection, and analysis of data relevant to decision making and the communication of the results of this analysis to management. It is a managerial tool used to better understand customers, potential

customers, and the marketplace. In other words, it has three major functions. First is its descriptive function which entails the gathering and presentation of statement of facts. The second is the diagnostic function which has to do with the explanation of data gathered. The third and the last is the predictive function which entails the descriptive and diagnostic function to predict the results of a planned marketing decision.¹The question now is how does marketing research relate to taxation? Marketing research has grown in importance because of management's focus on customer satisfaction and retention. It is also a key tool in management. proactive For taxation. management could refer to tax regulatory bodies and agencies while customers could refer to the taxpayer. Marketing research will assist in answering questions to ascertain:

1. Taxpayers perception toward paying tax or imposing a particular kind of tax,

2. What impact will the introduction of a particular kind of tax have on existing taxpayers, potential taxpayers and the economy,

3. How sustainable can the imposition a particular type of tax be? Conducting marketing research for any purpose requires a series of step. The first and most important step is to clearly define the problem to be addressed. This will give a clearer research objective, understanding the barriers and finding the appropriate solutions for proper decision making. The second step is conducting the research and finally, communicating the results. As straight forward as it may seem, marketing researchers still face enormous challenges. One of them is handling big data. Although big data can provide great satisfaction in terms of result (based on the objective of the research), the biggest challenge is the coordination of in-house databases which obviously must be in place prior to accessing the data, modelling it, and offering thoughtful suggestions. Due to the size of information gathered, the process of handling such information and providing proper analysis may pose challenges. The best solution to issues

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such as this will be to leverage artificial intelligence to help coordinate the databases, sift through the data and perhaps provide at least elementary analyses.¹Through this mode of research, the outcome will be that tax administrators (regulatory bodies and agencies) are able to understand better the needs of taxpayers, potential taxpayers, attitudes and behaviour towards the tax system, have a change in approach to handling tax issues for better compliance. The FIRS in exercising one of its functions on supporting research with a view to stimulating economic development and determining tax fraud, evasion and other matters that affect effective tax administration could employ marketing research as a means of enquiry and make recommendation to the government on appropriate intervention and preventive measures.

Conclusions:

Tax systems have advanced to such a point where intelligence (artificial intelligence) has become necessary to supplement existing tax structures and aid the work of tax administrators for the purpose of boosting economic growth and advancement. We have seen that for a tax structure to be streamlined, the regulatory bodies have to be efficient. In other words, a tax system is as good as its regulatory agencies to the extent of influencing taxpayers' attitude and behaviour. However, certain factors still exist that influence the taxpayers to the point of compliance. Perception of or trust in the government to realise social good from tax payment (among other factors) continues to remain a mitigating factor for the level of compliance. Thus, tax regulatory bodies and agencies have a great role to play in order to promote taxpayer behaviour in a constructive manner. This is where the use of intelligence and marketing research comes to play. Understanding and further influencing the behaviour of taxpayers and potential taxpayers on the need to comply with tax regulations is an effective approach to promoting positive

behaviour and this can be achieved through marketing research. As mentioned earlier, marketing research is a managerial tool used to understand customers and the market place, in this case, the taxpayer and tax structure. Taxing authorities are able to understand the needs and challenges of the taxed population, access the fears of potential taxpayers and curb instances evasion. The benefits of cannot be underestimated irrespective of the challenges the researching body may encounter. One effective way of managing the challenges that may arise is conducting marketing research This would be employed for the use of intelligence in handling data, particularly big data and organising huge database of regulatory agencies. It is important for taxing authorities to tap into the potentials of artificial intelligence in advancing existing taxing structures. Artificial intelligence will easily adapt to changes in tax architecture in Nigeria since they do not have natural human experience. More so, regulatory agencies can use this to advance their monitoring capabilities and regulatory compliance for growth economic and development.

References:

- Seyi Ojo, Fundamental Principles in Nigerian Tax (Evidenced in 267 Questions & Suggested Solutions (2nd edn, Lagos: Sagriba Tax Publication 2009) 1.
- ⁱ Braithwaite, V. 'Dancing with Tax Authorities: Motivational Postures and Noncompliant Actions' in V. Braithwaite (ed)in Taxing Democracy. Understanding Tax Avoidance and Tax Evasion (Aldershot: Ashgate2002) 15 - 39.
- ⁱ Huang, Zhuowen, 'Discussion on the Development of Artificial Intelligence in Taxation' (2018) 8(08)American Journal of Industrial and Business Management 1818

4. ⁱBizarro, P.A. and Dorian, M, 'Artificial Intelligence: The Future of Auditing' (2017) 5 *Internal Auditing* 21-26; Moor, James. 'The Dartmouth College Artificial Intelligence Conference: The Next Fifty Years' (2006) 27(4) *AI Magazine* 87-91.

5. ⁱ (1938) 60 CLR 263 at 279; Lower Mainland Diary Products Sales Adjustment Committee v Crystal Diary Ltd (1933) AC 168 at 175.

6. ⁱKiabel BD, Nwokah NG (2009). Curbing tax evasion and avoidance in personal income tax administration: A study of the South-South States of Nigeria. European J. Econs. Fin. Admin. Sci., 15: 16-61.

7. ⁱKiabel BD, Nwokah NG (2009). Curbing tax evasion and avoidance in personal income tax administration: A study of the southsouth states of Nigeria. European J. Econs. Fin. Admin. Sci., 15: 16-61.

8. ⁱ Mark Anthony C. Dike, 'An Overview of the Nigerian Tax System: Implications for Foreign Investors. Paper presented at The Nigerians in Diaspora Organisation (NIDO) UK South Investment Conference on the 17th – 18th March 2014.

<https://www.citn.org/member_files/tax_conten t/e0cff10556112d9b022e42afe8aab9ad2dd7f618 .pdf> accessed 11 December 2019.

9. ⁱSection 14(2) of the 1999 Constitution (as amended).

10. Devolution.GOV,UK<https/www.gov.u k/topic/government/devolution 2014>accesed 15 /11/2020

11. ⁱOluwole Akanle, The Power to Tax and Federalism in Nigeria: Legal and Constitutional Perspective on Source of Government Revenue (Lagos: Center for Business and Investment) 1-4.

12. ⁱM. T Abdulrazaq, Nigerian Tax and Penalties (Ikeja: Princeton & Associates Publishing Co. Ltd 2014) 9.

13. ⁱ.Seyi Ojo, Fundamental Principles in Nigerian Tax (Evidenced in 267 Questions & Suggested Solutions (2nd edn, Lagos: Sagriba Tax Publication 2009) 1.

- 14. ⁱS 2 of the Federal Inland Revenue Service (Establishment) Act (hereinafter referred to as FIRSEA) 2007
- 15. ⁱSection 8 of the FIRSEA 2007 for all functions of the Federal Inland Revenue Service (herein after referred to as the FIRS).
- 16. ⁱS.86 of Personal Income Tax Act (hereinafter referred to as PITA) 2011.
- 17. ⁱSee generally s86 (9) of the PITA 2011 for the functions of the Joint Tax Board.
- 18. ⁱS.87 of the PITA 2011.
- 19. ⁱS .88 of PITA 2011 for the functions of the State Board of Inland Revenue.
- 20. iS.90 of the PITA 2011
- 21. ⁱ Keith Walsh, 'Understanding Taxpayer Behaviour – New Opportunities for Tax Administration' (2012) 43(3) *The Economic* and Social Review 453.
- 22. ⁱ Yayuk Ngesti Rahayu and others, 'The Role of Taxpayer Awareness, Tax Regulation and Understanding in Taxpayer Compliance' (2017) 9(10) Journal of Accounting and Taxation 139-146.
- ¹Susskind, Richard, 'Pragmatism and Purism in Artificial Intelligence and Legal Reasoning' (1989) 3(1)AI and Society28 -38; McCarty, L. Throne, 'Reflections on TAXMAN: An Experiment in Artificial Intelligence and Legal Reasoning' (1976) 90(5)Harvard Law Review 837–89
- 24. ⁱL. T. McCarty, Some Requirements for a Computer-based Legal Consultant, Technical Report LRP-TR-8, Laboratory for Computer Science Research, New Jersey: Rutgers University, p. 4 cited in kuzniacki, Blazej, 'The Marriage of Artificial Intelligence and Tax Law: Past, Present and Future' (2019) Present, and Future 3, 4
- 25. ⁱ Ding, F., "AI+ Tax" Will Become the "Black Technology" of the Tax System" (2017)at<http://www.shui5.cn/article/ef/113 244.html,> accessed 11 December 2019.
 26. ⁱKuzniacki (n21) 5, 6.

- 27. ⁱChartered Institute of Taxation of Nigeria (2010). Why Nigeria's tax system is weak. Punch Some tax reforms in Nigeria include Structural Adjustment Program in 1986, Shehu's Task Force on Tax, 1978; Dr Sylvester's Study Group on Tax, 1999; Economic Empowering Development Strategies, 2002; Professor Dotun's Study Group on Tax, 2002.
- 28. ⁱKiabel BD, Nwokah NG (2009). Curbing tax evasion and avoidance in personal income tax administration: A study of the south-south states of Nigeria. European J. Econs. Fin. Admin. Sci., 15: 16-61.
- 29.ⁱ Ajzen I (1991). The theory of Planned behavior. Organ. Behav. Hum. Decis. Proc., 50(2): 179-211.
- 30. ⁱKirchle E, Hoelzl E, Wahl I (2008). Enforced versus voluntary tax compliance: The slippery slope framework. J. Econs. Psychol., 29: 210-225.
- 31. ⁱBobek DD (1997). How do individuals judge fairness and what effect does it have on their behavior? (Federal income tax, Theory of planned behavior). Ann Arbor: UMI.
- 32. ⁱBobek DD (1997). How do individuals judge fairness and what effect does it have on their behavior? (Federal income tax, Theory of planned behavior). Ann Arbor: UMI.
- ⁱ Eriksen K, Fallan L (1996). Tax knowledge and attitudes towards taxation: A report on a quasi-experiment. J. Econs. Psychol., 17(3): 387-408.
- 34. ⁱ H O D, Wong B (2008). Issues on compliance and ethics in taxation: What do we know? J. Fin. Crime, 15(4): 369 382.
- 35. ⁱBobek DD, Hatfield RC (2003). An investigation of the theory of planned behaviour and the role of moral obligation in tax compliance. Behal Res. Acct., 15: 13-38.

- ⁱReckers PM, Sanders DL, Roark SJ (1994). The influence of ethical attitudes on taxpayers' compliance. Natl. Tax J., 47(4): 825-836.
- 37. ⁱManaf NA (2004). Land tax administration and compliance attitude in Malaysia. Unpublished doctoral thesis, University of Nottingham, United Kingdom.
- 38. ⁱ Gilligan G, Richardson G (2005). Perceptions of tax fairness and tax compliance in Australia and Hong Kong: A preliminary study. J. Fin. Crime, 12(4): 331-343.
- 39. ⁱ Wenzel M (2004). The social side of sanctions: Personal and social norms as moderators of deterrence. Law Human. Behavior., 28(5): 547-567.
- 40. ⁱKirchler E (2007). The Economic Psychology of Tax behavior. Cambridge: Cambridge University Press.
- 41. ⁱKirchler E (2007). The Economic Psychology of Tax behavior. Cambridge: Cambridge University Pres
- 42. ⁱ Spicer MW, Lundstedt SB (1976). Understanding tax evasion. Public Fin., 21(2): 295-305
- 43. Porcano TM (1984). Distributive Justice and Tax Policy. Acct. Rev., 59(4):619-636.
- 44. ⁱOlimid, A. P. (2014). Civic Engagement and Citizen Participation in Local Governance: Innovations in Civil Society Research, Revista de Științe Politice. Revue des Scienc*es*
- 45. Politiques, (44), 73-84.
- 46. ⁱCarl McDaniel, Jr and Roger Gates, *Marketing Research Essentials* (8thedn, New Jersey: Wiley 2013) 4, 5.
- 47. ⁱ Dawn Lacobucci, 'Marketing Research Challenges and Opportunities' (2018)17(5) Brazilian Journal of Marketing 640.