

Environmental Waste Management and Tax Compliance in Bayelsa State

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Abstract: Environmental tax authorities and agents' provision of waste management facilities' effect on individuals' and firms' tax compliance was the primary focus in this study, and was guided by a survey research design. Through the use of questionnaires, the researchers were able to derive primary data and were descriptively and inferentially evaluated. 150 Bayelsa micro, small, and medium-sized businesses and people make up the sample for the study. Waste management authorities and agents supplied waste control measures; however, the taxpayers did not fully assume the costs of the measures. The study concludes that, efficient provision of waste management facilities and dump sites in conjunction with a reduced sanitation fee will encourage voluntary environmental tax payment by individuals and firms. Government agencies should endeavor to provide more waste management facilities to encourage the public to pay environmental taxes voluntarily. This is because, waste constitutes a bulk of the environmental hazard, and it will also improve the internally generated revenue base of the state.

Keywords: Environmental Tax Compliance, Waste Management Facilities and Sites

I. INTRODUCTION

Environmental pollution has long been a problem for governments since tax payers sometimes overlook the necessity of paying environmental taxes that help the government provide the proper trash disposal in order to decrease the harmful impact of such waste on the environment. Expenditure is caused by a lack of planning. Waste management practices like "flame, flush or throw" are archaic rituals that have resulted in an unsustainable civilization and may lead to an environmental tax that can assist limit waste management (Seadon, 2010).

In the context of environmental policy, environmental levies serve as regulatory tools. As a result, they must be governed by environmental standards and aim solely or largely at achieving certain environmental objectives through behavioral change and technical improvement. Environmental taxes, on the other hand, have a regulatory aspect that aims to maintain the quality of the natural environment (Hoerner, 2018). In practice, environmental concerns are weighed against other interests, such as competitiveness, regional policy and employment. Since Arthur Pigou initially advocated environmental taxes in his

Economics of Welfare, environmental taxes have remained on the academic pedestal, despite the fact that politicians do not support them (Pigou, 1920 in Williams, 2016). There are several strategies to increase the availability of cheap garbage collection services, including encouraging micro-enterprises and organizing the informal sector. It has been suggested that the lack of awareness about waste treatment systems by the government is a contributing issue (Chung & Lo, 2010).

Pokhrel and Viraraghavan (2014) also bring up the issue of a lack of funding preventing properly equipped landfills from safely disposing of garbage, as well as a lack of regulatory oversight. Waste is a byproduct of a lack of thought. A civilization that relies on the conventional methods of "burn, flush, or toss" for waste disposal is unable to sustain itself. 80–85% of the electronic debris that might be recycled in the United States was disposed of in landfills between 2003 and 2005 (U.S. EPA, 2007).

1.2 Statement of the Problem

An essential component of environment policy is to use taxes to internalize externalities, cut down on harm and improve quality of life. In Nigeria and other developing countries environmental tax has become a difficulty for taxpayers to comply because environment tax authorities and agents (ETAA) do not provide waste control facilities to the general public (Ogoun & Atagboro, 2020). Waste management is a challenging chore, as we all know. Among the many issues it causes are drainage obstruction (flooding), traffic congestion, health risks, and an ugly environment. Furthermore, environmental pollution in urban areas caused by waste is a major cause of concern for the international community because pollution affects our well-being, health, convenience, amenities, property values, and standard of living in general in many different ways and in many different places (Jimoh, Daramola & Uwuigbe, 2013).

Due to rapid urbanization and a lack of environmental sanitation measures, people in cities are increasingly disposing off solid trash irresponsibly or randomly, wherever they see fit. If we want to live in a beautiful atmosphere, it would be impossible to comprehend such problematic traits and characteristics. The lagoon front in the nation has been transformed into a garbage dump for

human and other solid waste. Trucks laden with poo line up to dump their contents into the lagoon in big numbers. There are many environmental specialists who believe that this practice has a highly negative impact on the environment. Nigerian cities' infrastructure (streets and roads) and surrounding bushes are littered and strewn with rubbish because of a lack of enforcement or application of current environmental cleanliness legislation (Njoku, 2006).

Pollution has been a serious concern and posing a lot of threats to the environment of many nations, Nigeria not being an exception (Yuan, Shin & Managi, 2018), and the inadequate provision of waste or refuse disposal facilities and sites have also caused residents not to comply with environmental waste management in Nigeria and in particular, Bayelsa. That is, the general spectrum of the inquiry is to examine and ascertain whether environment tax authorities and agents (ETAA) provide waste management facilities and adequate control measures to the taxpayers and the general public while complying with the regulations. This study is therefore, carried out to investigate reasons for such habits. Interrogatively and hypothetically, the study focused on the following:

1. What is the extent of waste control facilities provision by environment tax authorities and agents to the general public and taxpayers?
2. How do taxable individuals and firms comply with environmental tax authorities' and agents when control facilities are provided?
3. To what extent do taxpayers comply with environment tax authorities and agents when control facilities are not provided?
4. How certain, convenient and economical are environment waste control measures to the taxpayers and the general public?

H01: Waste control facilities are not provided by environmental tax authorities and agents to the general public and tax payers

H02: Taxable individuals and firms do not comply with environment tax authorities and agents when control facilities are provided

H03: Taxable individuals and firms comply with environmental tax authorities and agents when control facilities are not provided.

H04: Environmental waste control measures are not certain, convenient and economical to the tax payers and the general public.

This research is critical because it will assist many nations get the most out of their environmental taxes and waste management systems. For the research area's efficient and effective waste management system, it will be a big benefit. Even more importantly, the findings of this study will serve as a reference for researchers interested in pursuing research in this area.

II. RELEVANT LITERATURE

This section of the article comprises conceptual review, theoretical framework, empirical review and gap in literature.

2.1 Conceptual Review

2.1.1 Concept of Environmental Tax

Taxes are levies imposed by the government on individuals and businesses in order to raise money for the government's operations and other public projects. Tax evasion and resistance are both illegal and penalized by law. Environmental harm or negative externalities, on the other hand, are intended to be included into pricing as a way to guide production and consumption in a more environmentally friendly direction (Williams, 2016; Ogun & Atagboro, 2020).

Negative externalities occur when the production or consumption of a thing hurts someone other than the buyer or seller. This is an example of a market failure since the buyer and seller fail to consider the external cost while making their decisions. As a result, an unregulated free market is likely to produce an excessive amount of any product that has a negative externality. If the externality-generating good is taxed, it can be corrected. In order to ensure that the buyer pays the entire marginal social cost of the item, the tax rate should be equal to marginal external damage (the total harm to parties other than buyers and sellers from one more unit). As a result, the tax provides an incentive for the market to generate the optimal amount of the good (if there are no other uncorrected market flaws) (Williams, 2016). Including environmental fees in the overall tax system is vital since they do more than address externalities. They can also generate revenue, which is a significant advantage.

There are four types of environmental taxes: energy taxes, transportation charges, pollution taxes, and resource taxes or resource rent taxes. Because environmental harm affects a large number of people and the polluter bears little or no direct cost, there is no market incentive for it to be taken into account without government involvement. The conservation of the environment, therefore, usually calls for a coordinated effort headed by government (Greene, 2011). Prescriptive "command-and-control" restrictions, such as prohibiting or regulating specific pollutants or compelling certain businesses to employ specified technology have been common in environmental policy in the past. Taxes and tradable emission permits have been more popular in recent decades as a means of reducing emissions. Many factors contribute to the rising popularity of environmental levies (Greene, 2011).

2.1.2 Solid Waste Management in Nigeria

When Nigeria's towns were littered with mountainous garbage piles and industrial pollutants were discharged into rivers and streams without treatment, the federal government of Nigeria issued decree 58 on December 30th, 1988, to establish a

Federal Environmental Protection Agency (FEPA) (Federal Military Government, 1988). One of the aims of the national policy on the environment is to provide all Nigerians with a sufficient environment for their health and well-being.

Public awareness and the promotion of environmental and economic growth should be a primary goal. For the purpose of promoting environmental preservation and improvement activities by involving individuals and communities. Actions targeted at important industries and environmental backlogs will have a significant impact on the policy's outcomes and implications. It is essential that environmental protection be prioritized while addressing the solid waste issue. This means establishing and enforcing ecologically sound methods for collecting and disposing of garbage, as well as enforcing existing laws, rules, and standards. (FEPA, 1989, FRN, 1991).

Waste Collection: In most cases, waste collection services are provided by the public sector, however some States have established official public-private partnerships (PPP). The use of local vehicles (push carts) for door-to-door rubbish collection services is not uncommon in various Nigerian cities. Most cities in Nigeria, with the exception of Lagos and Calabar (in Cross Rivers State), do not have more than 50% efficiency in collection services. Slums and rural communities have a hard time accessing these kinds of services. Lagos' relative success can be attributed to the public's (waste producers') high cost recovery rate and the state's strong political commitment to sound garbage management (Iriruaga, 2018) ; A garbage transfer station in Lagos State is the only state in Nigeria to have one, and it's a rarity. In Nigeria, the most popular techniques for disposing of municipal garbage are still open dumping, open burning, incinerator, uncontrolled land-fills and composting. Trash management businesses utilize rubbish transfer stations to bulk up waste into bigger consignments before transferring it to dump and disposal sites to increase the effectiveness of their waste collecting service (Iriruaga, 2018). In certain circumstances, wastes are illegally disposed of in burrow pits and vacant locations that have been designated by the government or private owner. (Agunwamba, 2010).

Waste Management Challenges in Nigeria

For example, Ogoun (2019), Atagboro (2019 & 2020) and Agunwamba (2010) identified the following waste management service delivery challenges:

1. Legal framework and enforcement of current restrictions are lacking
2. There is a lack of financial and human resources to deal with administrative and technical concerns.
3. Unacceptable public perceptions of solid waste management
4. In most states, cost recovery is poor, and financing is nonexistent.
5. A lack of data management
6. Unchecked urbanization are symptoms of poor planning;

7. Uncoordinated functions of the institution
8. There is a lack of academic-industry ties.
9. A lack of required political will.

2.1.3 Principles of Taxation

A governing body's system of taxing should be guided by taxation principles. In order to avoid unfairly burdening any one individual or business, the tax burden should be distributed over as many people as feasible. As a result, the entire population bears the cost of taxation. Taxes are unrelated to the value received by the taxpayer. In addition, the fee is mandatory. For this reason, the burden of taxes cannot be distributed according to a person's benefit obtained from the tax (Ikeda, 2012; Ogoun & Atagboro, 2021). Canons of taxation, according to Adam Smith (1776), may be broken down into four categories. Even in the 21st century, modern governments still use Smithian taxation principles for levying and collecting taxes. This is how Ikeda (2012) summed up the canonical maxims that Adam Smith first referred to in Book V, Chapter 2 of *The Wealth of Nations*:

Equity: According to this notion, all citizens should be taxed equally. Citizens must make the same sacrifices, regardless of their wealth or status. In other words, according to this taxation canon, each individual should pay taxes to the government in proportion to his or her financial situation (Soyode & Kajola, 2016, Oyedokun, 2020, Wise & Berger, 2010, Tax Justice Network Africa, 2011).

Certainty: Individuals should be required to pay a specific amount of tax, according to this taxation canon. When it comes to taxes, it should be crystal clear to the tax payer how much they must pay, to whom, and when they must pay it.

Convenience: If you want people to pay taxes, then you should collect them when and how they can pay them.

Economy: As a result, the gathering process of environmental taxes should be as inexpensive as feasible. People's wallets will be drained if most of the tax money is spent on collecting it, while the State's coffers would be empty. It's a bad tax (Oyedokun, 2019).

Since Adam Smith's day, the field of economics has made enormous strides. Later writers (Bastable & Smriti, 2016; Oyedokun, 2020) have added to his canons, which are: Productivity, Elasticity, Simplicity, Variety, and Flexibility.

2.1.4 Tax Administration and Management

Tax administration means: a. management, conduct, direction, and supervision of the execution and application of state tax laws; b. the administration of internal revenue laws or similar legislation or equivalent state laws (Enahoro & Olabisi, 2012). State income may be produced by an effective tax administration system that includes assessment, collection, and remittance. An excellent tax system and management are necessary for a state's economic goals to be met. The primary goal of taxation is to generate income for public expenditure, but it also serves a variety of additional functions. For most

contemporary economies, tax income is critical to the functioning of the government. Taxes, which are seen as a general responsibility of citizens, are neither imposed or collected in return for any specific benefit but rather (Enahoro & Olabisi, 2012).

It is critical for any government to address the issue of tax revenue production and the efficient management of its administration. Efforts are always being made to ensure that the taxation system and its administration are as efficient as possible (Enahoro & Olabisi, 2012). According to Abiola and Asiweh (2012), the informal sector of the economy is dominated by those who do not believe in paying taxes. Employees of the government should only be required to pay taxes on their salaries to them, which amounts to a form of overtaxing a willing animal. The strong union's operations in the formal sector do not even facilitate the successful implementation of tax policy in the formal sector (Abiola & Asiweh, 2012). When it comes to enforcing tax laws, even revenue collection personnel appear to be lax or even complicit with individuals in the informal economy.

Compliance with Nigeria's tax laws is the responsibility of several different tax agencies. It is defined in the Personal Income Tax Decree of 1993 as a tax collecting agency. It might refer to the Federal Board of Internal Revenue (FBI), the State Board of Internal Revenue (SBIR), or the Local Government Revenue Committee (LGRCC). Aside from Nigeria's Joint Tax Board and Body of Appeal Commissioners, Nigeria's tax administration is comprised of a number of other bodies (Bariyiman & Gladson 2009; Fellerton, 2016; Iyoha, Uwuigbe & Uwuigbe, 2013; Akinbola, 2019).

2.1.5 The Impact of Environment Tax Revenue

When environmental taxes are levied, they are not paid in exchange for products or services, but rather as a transfer of resources and money from the private sector to satisfy some of the nation's economic and social goals. (Okpe, 2000; Oboh & Isa, 2012; Oboh & Isa, 2013) Many goals can be sought, such as high levels of employment and price stability; rapid GDP growth; a good balance of payments position; promotion of a free market economy; satisfaction of communal needs; and equitable redistribution of income (Onoh, 2013).

Citizens must pay a certain amount of environmental tax, which is set by the government. Those who make such a decision, according to Ngerebo and Masa (2012), do so based on how much it will cost for the government to carry out its initiatives or programs. It is not just the government's view of citizens' level of living that is taken into consideration when determining how much, how much each citizen is taxed, and how long they must pay the tax. Individual and company spending patterns, saving and investing habits, government spending and the economy as a whole are all impacted by taxes.

In order to be efficient, taxes and fees must be accepted by everyone. The link to environmental harm and the return of environmental fees to the polluter are two of the most essential factors that boost the acceptability of the plan. It is unlikely that the tax will have any effect on polluters' attitudes if the tax's relationship to environmental harms is minimal.

2.1.6 Challenges of Environmental Tax Collection

Damages resulting from taxes and fees must be taken into account when enacting regulations. This includes both direct and indirect damages. The use of environmental taxes is critical. According to various studies (Ola 2001; Odusola 2002; Ariyo, 2010, Ogoun & Atagboro, 2019, 2020), the Nigerian tax and environmental tax system is plagued by some of the following problems:

1. A dearth of data on environmental taxes
2. Inability to prioritize environmental taxation
3. Poor tax administration
4. Lack of compliance by taxpayers with environmental regulations

2.2 Theoretical Framework

Ecological value-belief theory is backed by the exchange relationship hypothesis as outlined by academics below:

The Value-Belief-Norm Theory of Environmentalism: Individuals or groups who believe that environmental circumstances constitute a threat to other people, animals, or the biosphere, and that the activities they plan to take might prevent such consequences, are the ones who are most likely to engage in pro-environmental activity. This theory explains why many governments and corporations believe a need to control the ecological damages which pose a threat to the world population and species through an efficient pollution control system, of which environmental/carbon tax falls under (Paul, Thomas, Troy, Greg & Linda, 1999; Wayne, 2019).

Theory of Exchange Relationship: The foundations of this philosophy may be found in the equity canon. According to the exchange model of government-taxpayer interactions, taxpayers exchange part of their purchasing power for government advantages, including goods and services and non-material forms of satisfaction such as a sense of belonging or identification, in exchange for government benefits. It has been shown that an individual's level of happiness with an exchange connection is greatly influenced by their perception of equal or equitable terms of trade among all parties involved (Waister & Brachcid, 2010). It might be distressing for a participant to see that his own conditions of trade do not match those of others. Regardless matter whether the person is a victim or a benefit of unfairness, this misery is felt by everybody.

2.3 Empirical Review

A study by Tadesse, Ruijs, and Hagos (2010) looked at what influences people's choices about how to dispose off

household garbage. Results demonstrated that the availability of waste facilities has a substantial impact on the choice of waste disposal method. Garbage dumping is more likely to occur if there is a lack of waste containers and a considerable distance to these containers, compared to the usage of community waste containers.

Abuja solid waste management was studied by Imam, Mohammed, Wilson, and Cheeseman (2017). It was hoped that the construction of Abuja would alleviate some of the environmental issues that plagued other big African cities. It's time for a new, privately operated landfill to be built, notwithstanding recent improvements in the functioning of the current dumpsite. Wastes that have been placed on roads, bridges, culverts, and drainage channels need to be removed. Waste management regulations must be enforced and a comprehensive waste management strategy and planning framework must be in place. Enforcing relevant terms in development guidelines is the best way to prevent illegal land usage. Waste management systems and infrastructure can only be correctly planned if accurate demographic data is available. Affordability and access to capital are still key issues.

Morgenstern (2016) looked at environmental taxes that were either dead or active. In both theory and current patterns, there appears to be some hope for the future of taxes on the environment. Environmental policies, including regulations, taxes, and tradable permits can all cause additional revenue distortions, according to a recent study that appears to contradict the so-called "double dividend" hypothesis of environmental taxes and policies. There is currently a lack of direct environmental taxes, such as per-unit charges on emissions, but indirect environmental levies, such as taxes on fuels, cars and beverage containers, are becoming more prevalent around the globe. Taxes on environmental goods and services climbed while taxes on personal and corporate income decreased between 1990 and 1993, showing a small tax shift.

Environmental pollution and waste management were the focus of a study conducted by Skenderovic, Kalac, and Becirovic (2015). Environment pollution and waste management were addressed in this article. Everyone and everything in our immediate surroundings is tied to the environment in one way or another. There are several factors that contribute to environmental pollution, including human activity and natural disasters like volcanic eruptions and earthquakes. Pollution has been in existence from the dawn of time, but it has now escalated to the point that it poses a grave danger to humankind's continued existence. A problem was noticed during the research: "What is the influence of the waste management on the environment?" Everyone on Earth is concerned about environmental degradation because of the effects we confront every day, from the air we breathe to the food and water we eat, to the pollutants and radiation we are exposed to. As a result of environmental issues, natural resources are few, plant and animal species are gone, and global ecosystems and biochemical processes are in jeopardy.

Rotimi (2021) examined environmental tax and its impact on pollution control in Nigeria. It specifically examined the impact of environmental tax on air and water pollution, and waste disposal. The study predicated on planned behaviour theory and value believes norm theory of environmentalism. Primary data source was explored in presenting the facts of the situation. The desired sample was selected using probability sampling techniques. Descriptive statistics were used to evaluate the data gathered from 183 surveys. Environmental taxes have a considerable impact on pollution control, according to the research. Pollution control may be improved by an environmental fee, according to 90.8 percent of the survey respondents. Pollution control in Nigeria was shown to be improved by the introduction of an environmental charge.

Fullerton, Leichester, and Smith (2014) scrutinized environmental taxes. The study provides an overview of important economic concerns related to the use of taxes as an environmental policy tool in the United Kingdom. An economic analysis of taxation and other market mechanisms to promote environmental policy is presented first, followed by a discussion of tax base options and an estimation of environmental taxes' monetary worth. Environmental tax revenues, it is said, do not materially alter tax policy's economic limits, and thus environmental taxes must be justified solely by the cost-effective attainment of environmental objectives. As a result, environmental taxes are examined in depth, including taxes on industrial and residential energy usage, road transportation, air travel and garbage. A "multi-part instrument" may be necessary in certain of these areas for effective taxation of environmental resources.

Olalekan and Oyedokun (2019) exposed that, Adam Smith's tax canons are still relevant in the present tax system. A taxation system is composed of three parts: tax policy, tax legislation, and tax enforcement. The canons of taxes were originally stated by Adam Smith in his renowned book "The Wealth of Nations" in 1776, despite the fact that taxing had existed for many years. Some basic rules and concepts for constructing an effective tax system are laid forth in these tax canons. After a thorough investigation using an exploratory research approach, it was observed that these tax canons, while having been published some time ago, are being utilized as a basis for tax policy, tax legislation, and tax administration debates today. It is on the basis of these principles that reforms to national tax systems may be made in order to ensure tax competitiveness among nations in order to attract human and investment resources in an increasingly globalized world.

2.4 Gap in Literature

Previous researchers have examined environmental taxation, solid waste management. However the available studies have reported mixed and contradictory findings thereby creating a platform for further studies. While studies such as Suad, Kalac and Skenderovic (2015) in Serbia examined environmental

pollution and waste management; Robertson (2016) in Washington DC examined environmental taxation; Guerrero, Maas and Hogland (2013) in Netherlands looked at Solid waste management challenges for cities in developing countries; also Seadon (2010) in New Zealand examined sustainable waste management systems. To the best of the researcher’s knowledge no empirical study has examined environmental tax compliance and waste management; tax payer’s implication. Thus, this vacuum created constitutes the gap this present study intends to fill.

III. METHODOLOGY

A survey research approach was used in this study's methodology. In order to collect data at a single moment in time, a survey research design is used (Asenahabi, 2019). Participants in the study include those who pay environmental taxes and fees for sanitation (including small and medium-sized businesses and inhabitants of designated rural and urban towns including Amassoma and Yenagoa as well as Sagbama, Otukee, and Kaiama). As a result of the study's huge population, a judgmental selection approach was utilized to generate a sample of 150 participants. The respondents include employers/owners, Directors, Managers and other employees and taxable residents of the populace. The purposive sampling techniques provide easy access in collecting data.

This study utilized primary data. The instrument of data collection was the questionnaire. When an interviewer asks a series of precise, typically brief questions to a group of people, they are referred to as "questionnaires." As a result of this design, responders should be able to easily grasp the questions. The layout of the questionnaire consists of two sections (the demographic data and questions relating to the independent and dependent variables).The structured questionnaire was measured using Likert 5 point scale of agreement

The amount to which a measure accurately represents the underlying concept it is meant to assess is called validity (Drost, 2011). From the views of Soaga (2012), an expert's view is the best approach to determine if a study is credible. In order to improve the study's accuracy, the research supervisor sought out this advice. Cronbach's Alpha was utilized as an internal consistency metric. This assists in determining the extent to which elements may be used as a single measurement. A cut off value of 0.7 was the bench mark as it is the recommended value for reliabilities. Seven (7) questionnaires were given randomly to participant and then

analyzed using SPSS 26.0 software (see appendices). To avoid biasness from occurring, respondents who were participating in the pre-test were excluded in the final study.

Descriptive and inferential statistics were used to evaluate the data collected from the selected respondents. There were hypotheses that needed to be evaluated, and a basic regression procedure was used to determine their significance. The Statistical Package of Social Sciences (SPSS) 26.0 aided the data analysis. Based on the foundations on the theories and empirical reviews earlier made in this study we can hypnotize that effective Waste Management is a positive function of the environmental tax compliance in an economy. Thus, we can specify a predictor model of Waste Management and Environmental Tax Compliance in a linear function as:

$$WAMA = f(ETAA, WACF, CEME)$$

The above model can be transformed into a regression model equation:

$$WAMA = \beta_0 + \beta_1 ETAA + \beta_2 WACF + \beta_3 CEME + e$$

Where:

WAMA = Waste Management

β = beta Coefficient

β_1 ETAA = Environmental Tax Authority and Agent

β_2 WACF = Waste Control Facilities

β_3 CEME = Environmental Waste Control Measures

e = Composite error term

IV. DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Data Presentation

4.2 Descriptive Statistics

The explained factor (environmental tax compliance) and the explanatory factors are summarized using the mean and standard deviation (waste control facilities, compliance of taxable individual and waste control measure). There was a scale used to gauge how accepting or un-approving the questions were by those who responded. Although the data are summarized by their mean, standard deviation provides insight into how well those means really do so (Field, 2003). Standard deviations are used to determine if the statistical means are a good match for the observed data; a small standard deviation suggests that the means reflect the data properly, whereas a big standard deviation shows that the means are not accurately represented by the data (Field, 2003).

Table 4.5: Descriptive Statistics for Environmental Tax Compliance

	N Stat	Min Stat	Max Stat	Mean		Std. Dev. Statistic
				Stat	Std. Error	
There are task force officers in respect of local and state government sanitation authorities representing the government in collecting sanitation fees in your environment	150	1.00	5.00	3.3800	.13468	1.34675
Sanitation fees paid by residents running businesses are termed	150	1.00	5.00	3.2800	.13339	1.33394

environmental tax that facilitate the provision of waste management and measures						
Environmental tax authorities and agents represented by task force officers regularly provide waste management facilities	150	1.00	5.00	3.7000	.12102	1.21023
Waste all regularly disposed by task force officers in your environment	150	1.00	5.00	3.4400	.12253	1.22532
Waste are never disposed by any task force officers in your resident	150	1.00	5.00	3.4200	.13041	1.30407
There is no support from the government in terms of managing wastes	150	1.00	5.00	3.4600	.10676	1.06761
I personally manage waste as a resident man or woman.	150	1.00	5.00	3.1200	.12332	1.23321
Private waste management organizations and individuals are frequently engaged to curb the sanitation	150	1.00	5.00	3.3000	.12753	1.27525
Valid N (listwise)	150					

Source: Field Survey, 2021

Table 4.5 above shows the descriptive result of the response on environmental tax compliance. From the table all mean score are between the range of 3.12 to 3.70 and the standard

deviation range from 1.07 to 1.35 on a 5-point Likert scale. Where 1= strongly disagreed and 5= strongly agreed.

Table 4.6: Descriptive Statistics for Compliance of Taxable Individual

	N Stat	Min Stat	Max Stat	Mean		Std. Dev. Statistic
				Statistic	Std. Error	
Taxable individuals and firms pay sanitation fees only when waste management and control facilities are provided	150	1.00	5.00	4.4400	.12253	2.42532
Taxable individuals and firms are forced to pay sanitation fees by tax force officers and security aides	150	1.00	5.00	3.8200	.13041	1.91407
Non provision of waste management facilities and measures by government and non-compliance of sanitation fees have caused series of police and security aides harassment	150	1.00	5.00	4.2600	.10676	1.76761
Sanitation fees are paid even when waste management and control facilities are not provided	150	1.00	5.00	4.1200	.12332	2.23321
Sanitation fees are paid to avoid police harassment and other forms of intimidations from task force officers.	150	1.00	5.00	3.9200	.12753	2.07525
Valid N (listwise)	150					

Source: Field Survey, 2021

Table 4.6 above shows the descriptive result of the response on compliance of taxable individuals. From the table all mean

score are between the range of 3.82 to 4.26 and the standard deviation range from 1.77 to 2.43 on a 5-point Likert scale.

Table 4.7: Descriptive Statistics for Waste Control Measures Cost

	N Stat	Min Stat	Max Stat	Mean		Std. Dev. Statistic
				Statistic	Std. Error	
Waste management and control facilities are provided but the location are not convenient	150	1.00	5.00	4.4400	.12253	2.42532
Sanitation fees are not economical to us. Fees are too high compare to the facilities provided	150	1.00	5.00	3.8200	.13041	1.91407
Waste management and control measures are inadequate	150	1.00	5.00	4.2600	.10676	1.76761
Environmental sanitation authority are reluctant about the rules and regulations	150	1.00	5.00	3.1200	.12332	2.23321
Environmental task officers are not fulfilling their part of the agreement (regular disposal of waste)	150	1.00	5.00	4.1300	.12332	1.76761
Task force officers are only interested in their fess	150	1.00	5.00	4.0600	.12332	1.76761
There is no impact from the environment taxes being paid	150	1.00	5.00	3.3600	.11332	1.65761
Very poor internal control measures from the part of the government or poor supervisions and monitoring	150	1.00	5.00	2.9600	.15232	1.06735
Environment tax laws of the state do not reflect or consider the individual ability to pay	150	1.00	5.00	2.1600	.15332	1.31785

Individuals and firms are aware of the sanitation fees to be paid	150	1.00	5.00	3.5600	.10332	1.43769
Sanitation fees are flexible according to charges in circumstances	150	1.00	5.00	3.8600	.14332	1.57561
.environmental sanitation fees are not certain	150	1.00	5.00	3.9200	.11753	2.07525
Valid N (listwise)	150					

Source: Field Survey, 2021

Table 4.7 shows the descriptive result of the response on waste control measures. From the table all mean score are between the range of 2.16 to 4.44 and the standard deviation range from 1.07 to 2.43 on a 5-point Likert scale.

4.3 Inferential Statistics and Test of Hypotheses

Table 4.8: Model Summary of Environmental Tax Compliance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.746 ^a	.707	.705	4.12292	.745	213.003	5	94	.000	.563
a. Predictors: (Constant), WCF, CTI, WCMC										
b. Dependent Variable: ETC										

Table 4.8 above provides the value of R, R² and the Dublin Watson test statistics for the regression model that is derived. That means that waste management (waste control facilities and individual environmental tax compliance) accounts for 75% of the variance in environmental tax compliance. R² is 0.707 which means that the variation in environmental tax compliance can be explained by waste management.

The Dublin Watson statistics test for first serial correlation was used to test for the presence of serial correlations between the residuals. A Dublin Watson statistics that is >2 implies the presence of serial correlation (Gujarati, 2003). The Dublin Watson statistics of 0.563 implies that there is nonexistence of serial correspondence.

Table 4.9: Regression Coefficient of Environmental Tax Compliance

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
		B	Std. Error	Beta			Tolerance	VIF	
		1	(Constant)	-3.070					1.429
	WCF	1.583	2.038	.404	5.685	.000	.171	5.861	
	CTI	3.112	1.628	-.006	-.069	.005	.132	7.587	
	WCMC	1.425	1.927	-.192	-2.296	.004	.124	8.075	
a. Dependent Variable: ETC									

The table above shows details of the regression coefficient of the dependent and predictor variables. The first part of the table shows the estimates for the B-value and these values indicate the relationship between Environmental Tax Compliance (ETC) and each Waste management factors (WCF, CTI, WCMC). If B-value is positive it implies a positive relationship and if negative, it implies a negative relationship. The second part of the table shows the significant level of the relationship, if p< or =0.05 it therefore means that the relationship is significant.

Test of Hypotheses

Hypothesis I

Waste control facilities are not provided by environmental tax authorities and agent to the general public and tax payers.

From the regression result above, it shows that there is a positive relationship between waste control facilities and environmental tax compliance which was indicated by a B-value of 1.583. This therefore, implies that the environmental tax authorities provided waste control facilities.

Decision: the null hypothesis one is therefore rejected.

Hypothesis II

Taxable individuals and firms do not comply with environment tax authorities and agents when control facilities are provided.

From the regression result above, it shows that there is a positive relationship between compliance of individual and firms on environmental tax with a B-value of 3.112. This therefore implies that individual and firm comply with environmental tax authorities when waste control facilities are provided.

Decision: the null hypothesis two is therefore rejected.

Hypothesis III

Taxable individuals and firms comply with environmental tax authorities and agents when control facilities are not provided.

From the regression result above, it shows that there is a positive relationship between compliance of individual and firms on environmental tax which was indicated by a B-value of 3.112. This therefore implies that individual and firm comply with environmental tax authorities when waste control facilities are provided.

Decision: the null hypothesis three is therefore accepted.

Hypothesis IV

Environmental waste control measures are not certain, convenient and economical to the tax payers and the general public.

From the regression result above, it shows that there is a positive relationship between waste control measure cost (WCMC) and environmental tax which was indicated by a B-value of 1.425. This therefore implies that environmental tax charge to all taxable individual regardless of its economic effect on each individual.

Decision: the null hypothesis four is therefore accepted.

4.4 Discussion of Findings

The study examines how environmental tax authorities and agents' provision of waste management facilities affect individual tax compliance. The study found that providing waste management facilities by government agents has a positive impact on environmental tax payer compliance; the study also found that waste management authorities and agents provide waste control measures, but the cost of the measure is not fully accepted by taxpayers.

Hypothesis one was about waste control facilities provision by environmental tax authorities and agent to the general public and taxpayers. The analytical results show a positive relationship between the dependent and independent variables. This implies that the environmental tax authorities provided waste control facilities. Hypothesis two concentrated on taxpayers' compliance with environment tax authorities and agents when control facilities are provided. Findings show that voluntary compliance with environmental tax authorities were triggered by waste control facilities provision to taxpayers.

The test results of hypothesis three has depicted that taxpayers do not comply with environmental tax authorities when waste

control facilities are not provided. Environmental waste control measures are not certain, convenient and economical to the tax payers and the general public was the focus of hypothesis four. The pragmatic results showed that environmental tax is charged to all taxpayers regardless of its economic effect.

These findings of the research inquiry correspond with studies carried out by other scholars in distinct geographical locations. Though, none of this type of study had been carried out in the study area. Studies carried out in other areas that have similar results and situation are: Morgenstern (2016) looked at environmental taxes that were either dead or active. There is currently a lack of direct environmental taxes, such as per-unit charges on emissions, but indirect environmental levies, such as taxes on fuels, cars and beverage containers, are becoming more prevalent around the globe. Taxes on environmental goods and services climbed while taxes on personal and corporate income decreased between 1990 and 1993, showing a small tax shift. Environmental pollution and waste management were the focus of a study conducted by Skenderovic, Kalac, and Becirovic (2015). Environment pollution and waste management were addressed in this article. Everyone and everything in our immediate surroundings is tied to the environment in one way or another. There are several factors that contribute to environmental pollution, including human activity and natural disasters like volcanic eruptions and earthquakes. As a result of environmental issues, natural resources are few, plant and animal species are gone, and global ecosystems and biochemical processes are in jeopardy.

Rotimi (2021) scrutinized environmental tax and its bearing on pollution rheostat in Nigeria. Pollution control may be improved by an environmental fee, according to 90.8 percent of the survey respondents. Pollution control in Nigeria was shown to be improved by the introduction of an environmental charge. Fullerton, Leichster, and Smith (2014) scrutinized environmental taxes. The study provides an overview of important economic concerns related to the use of taxes as an environmental policy tool in the United Kingdom. The paper revealed that environmental tax revenues do not materially alter tax policy's economic limits, and thus environmental taxes must be justified solely by the cost-effective attainment of environmental objectives.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

From the analysis of this study on the environmental waste management facilities and tax compliance of individuals and firms; the following are the summary of findings;

- i. There is an optimistic bond between waste control facilities and environmental tax compliance; this implies that if waste control facilities are provided to the public then the taxable public voluntarily

complies with the environmental tax authorities and agents.

- ii. Positive connection exists between waste control measure cost (WCMC) and environmental tax compliance
- iii. There is a positive link between waste control measures and the general public's tax payment; this implies that if environmental tax authorities and agencies ascertain whether environmental waste control measures are certain, convenient and economical to the taxpayers and the general public, then, the individuals and firms are ready to voluntarily comply.
- iv. An optimistic nexus exists between waste control and the general public awareness concerning taxpayers; this implies that if Environmental tax authorities educate the general public about environmental tax and waste management then the taxable public is ready to comply.

5.2 Conclusion

The aim of the inquiry was to examine how environmental tax authorities and agent's provision of waste management facilities affect individual tax compliance, and from the outcome of the analysis, the study concludes that, efficient provision of waste management facilities and dump sites in conjunction with a reduced sanitation fee will encourage voluntary environmental tax payment by individuals and firms. And this will in turn improve the internal revenue generation base of the state.

5.3 Recommendations

The study's findings have led to the following recommendations:

1. Environmental tax authorities and agencies should provide more waste management facilities to the taxable public.
2. The environmental tax charges imposed on individual should be based on each individual ability and capability to pay.
3. Environmental tax authorities and agencies should ascertain whether environmental waste control measures are certain, convenient and economical to the taxpayers and the general public
4. The environmental tax authorities and agencies should commence a public awareness programmes in order to educate the entire public on the subject of environmental taxation, educating them on how to manage waste and paying environmental taxes.

The outcome of this study would complement other studies on this area of tax compliance as well as serve as reference point for further research that will be carried out in the future. This knowledge will also contribute towards ensuring the initiation of appropriate policies that would maximize the gains of improved tax compliance. Since it was not possible for the researchers to cover all states of the nation, additional studies

should be done in other state of the nation. Furthermore, this research only looked at waste management facilities as a factor for tax compliance whereas there is other factors that prompt tax payer to pay his or her taxes which future study can look at.

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