Taxation and Sustainable Development Goals

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Abstract

This paper studied the interplay between taxation as a source of revenue (tax) and taxation as a tax system comprising of tax policy, tax legislation and tax administration and the Sustainable Development Goals (SDGs) of the UN. It also investigated the interaction of SDGs and the various components of a tax system. The paper adopted a library research design because of its theoretical nature and used mostly internet resources. The paper found that taxation can promote the attainment of all the 17 goals of Sustainable Development as a source of revenue and as a system can be used to attain these goals but can also be subverted by them. It also found that tax administration is the most important component of a tax system. Furthermore, findings showed that SDGs can affect all the components of a tax system. This paper, therefore, recommended judicious application of tax revenue and a strong and good tax system especially an effective tax administration that is perceived to be fair and equitable to be able to attain the SDGs.

Keywords: Tax, Taxation, Eco-development, Appropriate Technology, Sustainable Development

1.0 Introduction

Sustainable Development is a multi-dimensional concept incorporating different aspects of humanity which seeks to preserve the environment and protect the natural capital in order to attain economic prosperity and equity for both the present and future generations (Donaires, et al 2018). Sustainable development appreciates the strong inseparable connection between people, the planet and development. It is related to national and international policy development, making it the core element of policy documents of governments, international agencies and business organisations (Mebratu, 2018).

The Concept of Sustainable Development was made popular by the report of the UN sponsored World Commission on Environment and Development (WCED): Our Common Future in 1987 (Daly, 1996). However, the ideals of the concept have been of great concern to humanity from time immemorial. Concepts like Theory of Environmental Limits, Appropriate Technology and Eco-development are precursory terminologies used to describe the concerns and aspirations embodied in the Concept of Sustainable Development.

Our Common Future defined sustainable development as “development that meets the need of the present generation without compromising the ability of the future generations to meet their own needs” (WCEB, 1987). The United Nations in 2015 adopted this definition and set a 15-year framework to achieve a global sustainable social, economic and environmental development that meets the dictates of this definition. The framework known as 2030 Agenda sets out 17 Sustainable Development Goals (SDGs) with 169 targets to achieve these goals. SDGs represent a universal clarion call to attain a better and more sustainable future for everybody including those yet unborn and to address the global challenges human beings are currently facing including development, poverty, inequality, environmental degradation, climate and peace (Platform for Collaboration on Tax, PCT, 2018). SDGs seek to end poverty (SDG 1), hunger (SDG 2) and ensure healthy lives (SDG 3). They also strive to ensure quality education for all (SDG 4), build resilient infrastructure, industrialisation and innovation (SDG

9), reduce inequality (SDG 10), and combat climate change (SDG 13). The summary of SDGs is about people, planet, progress, peace and partnership (popularly referred to as the 5 Ps).

Attaining the SDGs is a daunting task even for developed countries because they target not only building new infrastructures for instance, but also upgrading existing ones, and also innovation and social issues like gender inequality (United Nations, 2023). Even the world's richest countries: the United States and China (World Bank, 2023) were ranked 41st and 56th respectively in the 2022 ranking of 163 countries based on SDGs achievement, of which Finland led (Sachs et. al., 2022). The United Nations estimated that for Africa to achieve the SDGs by 2030, it will cost the continent about $1.3 trillion in annual spending (United Nations, 2020). This figure is expected to increase due to increasing population, conflict and corruption. Also, the United Nations Conference on Trade and Development (UNCTAD) projected that developing economies will require up to $4.5 trillion SDGs annual investments to meet the 2030 targets, with power infrastructure having the most financing need (Doumbia & Lauridsen, 2019). Additionally, to tackle climate change, the African Development Bank and IMF believed that African countries need $1.5 trillion from 2022 to 2030 (Mojeed, 2022).

In realisation of the existing financing gap, especially for developing countries, the United Nations set up funds to support members in meeting the 2030 goals. These funds were later harmonised as the Joint SDG Fund, which is a trust fund that is opened to all members in order to finance the SDGs' programmes. However, the fund may be insufficient given its projection to raise only $290 million in annual fund (Joint SDG Fund, 2023). The intervention from this fund is in the nature of aid and partnership with local organisations and government institutions.

Albeit, foreign aids and grants appear to be helpful, opinions differ on their ability to foster sustainable development; but it is safe to say that they do not hold a country down because prosperous countries like China and South Korea have received donations in the past (Chukwuemeka et. al., 2014). However, Chukwuemeka et al opined that it is unlikely that aids may be helpful in bringing about the actualisation of the SDGs in developing countries because of corruption and weak institutions.

In recent times, Nigeria strides in building infrastructures, however, the debt financing option adopted for the projects (for example for the second Niger Bridge, rail lines, roads and ports) has raised some concerns. The country's foreign debt profile as of December 2022 stood at over $40 billion (Debt Management Office, 2023). The conditions attached to borrowing and the burden of debt servicing made debt financing problematic.

Unlike developed countries that rely mainly on tax on individual income and VAT as their main sources of revenue (United Nations Tax Committee, 2018), resources-dependent economies like Nigeria rely less on taxes even though the commodity market can be volatile. The main source of public revenue in Nigeria is the sale of crude oil and the proceeds can be utilised to bring about sustainable development as observed in other climes. However, the instability surrounding the industry in the nature of internationally controlled pricing, activities of agitators in the oil deposit community, and oil theft diminishes the country's capability to properly finance time-bound projects like the SDGs. Moreover, financial resources alone cannot bring about the attainment of SDGs, hence the need for a veritable tool like taxation that can potentially raise the needed funds and encourage or discourage investments in critical sectors of the economy to achieve the goals.

Taxation is often used synonymously with tax, though, they are technically different. A tax is a payment made compulsory by law on the income, assets and consumption of citizens to the covers of government, while taxation is "*a system of charging and collecting the taxes… in accordance with established criteria, standards and statutes*" (Ironkwe & Nnaji, 2017, p.10).

This means that all fiscal activities of imposing, increasing, reducing, exempting, accelerating and delaying taxes fall under the purview of taxation; hence taxation can be equated to a tax system which is made up of tax policy, tax legislation and tax administration.

In deed tax revenue is indispensable to the realisation of the SDGs and albeit SDGs are not tax goals, they represent a conception of an ideal world we want to live in which taxation is a key instrument to attain it (Pilke & Rasanen, 2018). In fact the success of the SDGs will seem to depend on a strong tax system. For example taxation can be employed to promote environmentally friendly ventures which promote innovation (Kouam & Asongu, 2022) and can be exploited to invigorate the economy while realizing SGD 13. R&D incentives and higher tax rates for gas flaring could encourage innovation and discourage environmental degradation respectively. Granting tax incentives on healthy foods such as organic foods and taxing harmful foods will promote well-being (SDG 3), incentivising renewable energy ventures such as Eco-Car subsidy in Japan (Alhulail & Takeuchi, 2014) and specific tax exemptions for the agricultural sector in Nigeria are catalysts to SDGs actualisation.

However, taxation in developing countries is fraught with lots of challenges including the challenge of weak institutions; lack of dexterity and expertise of tax administrators, for instance taxation of multi-national companies and international and digital transactions pose serious challenges, and weak tax base where the highest income earners and the informal sector which contribute highest to the GDP are not captured in the tax net (Committee of Experts on Co-operation on Tax Matters, 2018). Despite these challenges, opinions are united in taxation being the most viable option to meet the requirements of SDGs. The ensuing questions, therefore, are: Do taxes affect the attainment of the Sustainable Development Goals? Do tax policies influence the Sustainable Development Goals? Is the efficiency of tax administration system relevant to the achievement of the Sustainable Development Goals? Do tax legislations impact Sustainable Development Goals? Furthermore, do the SDGs affect taxation either as a revenue source or as a system?

In order to address these questions, this paper examined the role of tax revenue can play in the achievement of Sustainable Development Goals. It also assessed the interactions between the various components of a tax system (taxation): tax policy, tax legislation, and tax administration and the attainment of the SDGs and ascertained the impact of SDGs on tax and tax system.

The remaining portion of this paper is divided into 5 sections. The next section examined the related concepts (tax, taxation, and SDGs) and discussed briefly the interactions between taxations and SDGs. It also presented the conceptual framework. The next part reviewed the theories of taxation relevant to the topic of discourse and established the theoretical foundation on which the paper in based. The methodology employed in the study is presented in section four. Detailed discussion on how tax and taxation can be used to achieve the SDGs and how SDGs affect tax and tax system is presented in section 5. Section 6 concluded the paper and made recommendations.

2.0 Conceptual Issues/Framework

2.1 Concept of Tax

Tax is a payment by persons (individual and corporate persons) made compulsory by law on their income, property, wealth, expenditure and consumption to the covers of government. The Classical Taxation Theorists and others believed that the sole essence of levying taxes, by governments, is to raise fund for governance and provide benefits to the general public. However, government raises revenue from various sources and it's important to distinguish taxes from other sources of government revenue.

Before a payment to government can be classified as tax, it must possess the character of being paid non-quid pro quo that is no specific thing is accruable to the payer in return for such payment or without reference to something in particular. When a payment is for the enjoyment of certain provision of government, it may not qualify as a tax such payment as hospital fees, toll fees are therefore not tax or when payment is made where something specific accrues to the payer such as land fees on land allocated. A tax must be paid whether or not the citizens get anything in return from government. Like the Yoruba people will say *"dandan lowo ori"* that is, it is a compulsion to pay tax.

2.2 Concept of Taxation

Viewed narrowly, taxation as the act of imposing levy can be likened to tax administration. Tax administration is one the tripartite pillars of a tax system that deals with assessment, collection, and accounting for tax (FIRS, 2015). Tax assessment consists of all the processes leading to the determination of actual tax payable by a chargeable person. However, a holistic view of taxation will liken it to an entire tax system operational in a nation going by the definition of taxation given by Ironkwe & Nnaji (2017) and the goal of taxation exposed by Rumi (2000). According to Rumi, the intent of taxation is to stabilize the currency, make public policy regarding wealth distribution, promote certain industries, subsidise particular population group and isolate the cost of providing services like roads and social security. Avi-Yonah (2005) also suggested that the goals of taxation are to raise revenue, mitigate inequality in the distribution of wealth and income and regulate private economic activities.

A tax system is described by Maryborrow (2007) as a principle based integral unity of interconnected and interrelated elements of tax which include regulatory legal basis of taxation, taxes and fees payable, the payers of the taxes and fees and tax administration mechanism. Bryzgalin (2002) also defined a tax system as an interconnection of all community of economic, political, organisational and legal public relations in the area of taxation. A tax system is composed of three elements: tax policy, tax legislation and tax administration.

Tax policy is a series of principles and guidelines laid down by the government in order to impose and collect taxes, which, provides the framework for a tax system that ensures a reliable source of revenue to the government and support the economy ( ). Tax legislation provides the regulatory legal basis or foundation for taxation, sets out the taxes and fees and provides the mechanism for tax administration (Maryborrow, 2007).

Schratzenstaller (2015) introduced the concept of sustainability in tax system in conformance with Our Common Future's definition of sustainable development. Nerudova et al (2019) said sustainable tax system is a tax system that contributes to the sustainability of a country's basic tax system to satisfy the requirements of the current generation without putting limits on future generations. Schratzenstaller categorised sustainable tax system into three: socially sustainable, economically sustainable and environmentally sustainable tax systems. A socially sustainable system operates to the effect of reducing inequality in the distribution of income and wealth that contributes to equal opportunity for all. A tax system that is capable of generating enough revenue to fund government activities is an economically sustainable tax system, while an environmentally sustainable tax system discourages production and consumption enterprises that lead to the degradation of the environment and climatic conditions. Nerudova et al (2019) also introduced a fourth type of sustainable tax system: the institutional sustainable tax system. Institutional sustainable tax system, according to him has effect on social, economic and environmental sustainability of the tax systems. This is by providing the factors or institutional framework that determines the functions of the entire tax system. The effectiveness of tax collection, the extent of the burden of tax administration and tax incentives to boast tax morale together make up the components of institutional sustainable tax system.

2.3 Concept of Sustainable Development

The concept of sustainability and Sustainable Development gained prominence following the issuance of the report of the World Commission on Environment and Development (WCED), Our Common Future in 1987 (Daly, 1996). This report is often taken as the beginning of discussion on the Concept of Sustainable Development whereas this is neither the beginning nor will it be end of the evolutionary process of the concept (Mebratu 1998). Sustainable Development originates from the concern and need to protect and conserve the bio resources on the planet earth. This concern for the safeguard and conservation of the environment has attracted attention for a very long time. Donaires et al (2018) observed that the groundwork of the concept is traceable to history when Greek writers suggested some practices equivalent to sustainable development at a time the Egyptian, Mesopotamian, Greek and Roman empires were battling with environmental challenges. Also the fear of wood shortage in 18th century Britain prompted the concern for responsible use of innate resources to protect the current and coming generations (Du Pisani, 2006). However, Mebratu (1998) traced the history of the idea back to since that time human being began to organise into communities and identified three precursory concepts in the evolution of the idea of sustainable development. Although, differently labelled at the various times their theme to secure the ecosystem remains the same.

At one time, it was referred to and reflected in the Malthusian Theory of Environmental Limit. Thomas Robert Malthus (1766 – 1834) appreciates the limits to development as a consequence of limited environmental resources (Mebratu, 1998). Malthus propounds two related theories, one leading to the other. His Theory of Population said that uncontrolled population increases in geometric proportion whereas subsistence increases arithmetically. This theory emanated from the manifestation of various vices like unemployment, poverty, and diseases which were blamed on the industrial revolution. These vices according to Malthus were resulting from the procreation ability of the human race and not human institutions brought about by the industrial revolution. Therefore, he propounded the Theory of Environmental Limits which suggested that with the fixed amount of good arable agricultural land available growth in population will reduce the per capital supply of food due to diminishing productivity of the land. Eventually, the living standard will be depleted to subsistence level where the population will cease to grow (Mebratu, 1998). Malthus ideas seem to suggest that to protect and conserve the fertility of the limited land (environment) available and enhance development population growth must be kept in the check.

Ernest F. Schumacher promoted the Concept of Appropriate Technology in his book “Small is Beautiful” in 1979 (McClaughry, 1989). Appropriate Technology is defined as a technology that takes into consideration, the skill, population, available resources, and the pressing social needs identified by the people themselves in design. This concept was borne out of the global population, resource exhaustion, presence of big corporate bodies, and the diminishing human liberty prevalent at that time (Mebratu, 1998). Schumacher therefore addressed in his book, amongst others, concern about the depletion of the resources of the planet, damage being done to the environment, and the presence of over regulated and organised system which he considered harmful to humanity and the planet. He also expressed the need for human beings to nurture the environment in fact and in spirit. Du Bose et al (1995) consider this Concept of Appropriate Technology as a precursor of the Concept of Sustainable Development.

Mebratu, (1998) noticed that while it became apparent after the 1972 UN Conference on the Human Environment that development and environment should be in a state harmony, the Club of Rome report around this time also observed that if the rate of economic development continued to be pursued as vigorously as witnessed in 1960s and 1970s then ecological limits will soon be exceeded. In order to ensure that development and environment no longer exist in a state of conflict terms like environment and development, development without destruction, environmentally sound development were used to represent the yearning for a development that is environmentally friendly. In 1978 the UN Environment Programme Review mentioned “Eco-development” to reflect the realisation that the issues of development and environment should be concurrently pursued. The Concept of Eco-Development can therefore also be taken as a fore-runner concept of Concept of Sustainable Development.

The term sustainable development was first mentioned in the International Union for the Conservation of Nature (IUCN)’s World Conservation Strategy in 1980 (Tryzna et al, 1995). This term was later used by the UN sponsored World Commission on Environment and Development (WCED) in its report Our Common Future in 1987 (Mebratu, 1998), and this marked the coming of age of the Concept of Sustainable Development (Kirkby et al, 1995).

WCED defines sustainable development a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. That is meeting today’s needs without jeopardising the needs of tomorrow. This definition has been widely accepted (Pearce et al, 1989) and has been employed in the pursuit of development agenda of the UN. In order to meet the dictates of this definition, the UN in September, 2015 sets out Sustainable Development Goals with 17 objectives (development goals) and 169 targets these can be grouped into three dimensions: social, economic, and environmental dimensions. This underlies the connection between social equity, poverty alleviation and improvement of the environment through sustainable economic growth (Mebratu, 1998). SDGs as summarized under these three dimensions are presented in Table 1.

2.4 Tax, Taxation and Sustainable Development

Huge amount of money is needed to finance the SDGs. In fact the UN estimates that Africa will need about $1.3 Trillion in annual revenue to meet the goals by 2030 (UN, 2020). This makes it obvious the need for and the relationship between tax and SDGs in providing the much needed revenue to achieve the objectives of SDGs. Albeit, foreign aid has been touted as a source of financing, the quantum, timing, and uncertainty surrounding it makes it unreliable. The importance of tax is further enhanced by the Addis Ababa Action Agenda’s emphasis on domestic revenue mobilization in the form of taxes as a veritable source of financing SDGs. Long and Miller (2017) opined that more taxes encourage more spending on education, health and social matters.

Taxation as a system in its various components tax policy, tax legislation, and tax administration, used judiciously can make possible the achievement of SDGs. Tax policy can be used to foster the achievement of SDGs by tailoring it towards the SDGs. For example, tax measures like tax incentives can be given on SDG related activities, the adoption of a progressive tax can reduce the amount of income and wealth inequality in the system. Tax legislation can be used to control the production and consumption of products harmful to health and control the pollution and degradation of the environment.

Table 1: Dimension of Sustainability and the SDGs

Dimension	**SDG**
Social	SDG 1: No poverty SDG 2: Zero hunger SDG 3: Good health and well-being SDG 4: Quality education SDG 5: Gender equality SDG 7: Affordable and clean energy SDG 11: Sustainable cities and communities SDG 16: Peace and justice strong institutions
Environmental	SDG 6: Clean water and sanitation SDG 13: Climate action SDG 14: Life below water SDG 15: Life on land
Economic	SDG 8: Decent work and economic growth SDG 9: Industry, innovation and infrastructure SDG 10: Reduce inequality SDG 12: Responsible consumption and production
SDG 17: Partnership to achieve the goals	

Note. Adopted from "A Systematic Literature Review. Relationships between the sharing Economy, Sustainability and Sustainable Development Goals" by A. Boar, R. Bastida and F. Marimon, 2020, *Sustainability*, 12(6744), p. 1-14. (https://doi.org/10.3390/su12176744).

A good tax administration system increases public trust in government, encourages tax compliance and reduces tax evasion with resultant increase in tax revenue without necessarily increasing the tax rate. In deed SDGs require a strong and good tax system.

The Platform for Collaboration on Tax (PCT) at its first conference on Taxation and SDGs held in New York in 2018 summarised the relationship between tax, taxation and SDGs in the following manner:

i. Taxes bring in funds that can be used to finance developmental activities in support of SDGs.
ii. Taxes change people's behaviour and choices leading to health outcomes, gender equality, and environmental preservation
iii. Taxation has effect on equality and economic growth and
iv. Fair and equitable taxation breads trust in government and strengthen the social contract which brings about development.

In the same vain SDGs have been observed to affect tax, tax system and even its various components

This paper examined the interactions between taxation (as a revenue source – tax and the various components of a tax system) and Sustainable Development Goals and the impact of SDGs on tax and the components of a tax system. The conceptual framework is presented in Figure 1.

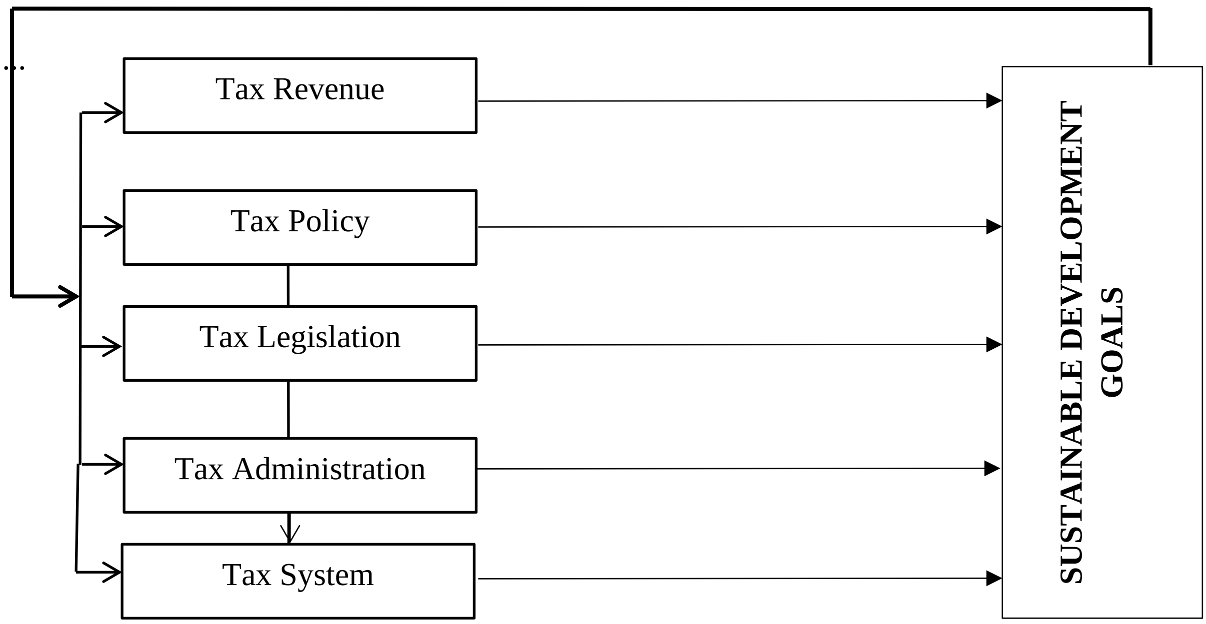

Figure 1: Conceptual Framework

3.0 Theoretical Framework

This section reviewed taxation theories considered relevant to the topic of discourse and established the theoretical foundation of the study.

3.1 Classical Theory of Taxation

One of the foremost theories in taxation is the Classical Theory of Taxation as propounded by Adam Smith in 1776. Adam Smith is regarded by some as the father of scientific theory in taxation. The theory propounded that the main essence of imposing tax is to raise revenue for government in order to run its affairs and provide necessary amenities and benefits to the people. However, in imposing taxes, there must be a good tax system. Adam Smith therefore set out four criteria which must be observed in the design of a good tax system that have become known as the canons or principles of taxation and had form the basic theory in taxation; these are the canon of equity, the canon of certainty, the canon of convenience and the canon of economy.

Canon of equity suggested that the burden of tax must be spread equitably or evenly amongst the tax payers according to their ability to pay. Canon of certainty opined that there should be no arbitrariness in the imposition of tax, that the tax system should be designed in such a way that the tax payer is able to assess himself with certainty. Canon of convenience operates to the effect that the payment of the tax imposed, the time of payment and the place of payment must be made convenient for the tax payer while canon of economy encourages thriftiness in the administration of the tax system where the cost of collecting tax will not exceed the tax collected.

Several other principles have been propounded after Smith's four cardinal principles of taxation; including the principles of productivity, flexibility, and simplicity. The principle of productivity suggested that the tax system should be capable of generating enough revenue to meet the activities of the government. Principle of flexibility asserted that the tax system should be able to respond to changes in the social, political, economic, and environmental externalities of a nation. Bhartia (2009) argued that it should be possible to revise the tax structure to meet up with the changing requirements of the economy and treasury quickly. Principle of simplicity suggests that tax rules and regulations should be as simple, straightforward, understandable and lack complexity, as far as possible, in order to permit their understanding by the tax payers. It further suggests that the number of such rules and the number of taxes to be paid should be kept to the minimum.

3.2 Expediency Theory

Bhartia (2009) propounded the expediency theory of taxation. Bhartia asserted that the only thing that has to be considered while developing tax measures or tax policy is its applicability. Can the policy be practicalised or translated to practice? Others issues like social or political issues were not considered important in the formulation of tax policy. This theory appears relevant in view of the fact that being able to be administered is one of the criteria for evaluating a tax (Avi-Yonah, 2005).

3.3 Socio-Political Theory

Socio-political theory of taxation stipulated that the major factor to be considered in fixing a tax is the social and political objectives of the state. A tax system should be designed to cure the ills of the society as whole including unemployment, poverty, diseases, inequality in incomes and wealth distribution, alcoholism and drug abuse. The theory de-emphasised the interest of individuals or group of individuals in formulating a tax policy and emphasised the general interest of all (Wagner, 2012).

The Classical Theory of Taxation appears to be most suited to this paper as it addressed the issue of taxes and their essence and the qualities of taxation as a system. It therefore represents the theoretical framework of this paper.

4.0 Methodology

This paper is theoretical in nature, and therefore adopts a library research design. The paper relied heavily on resources available on the internet and supplemented with necessary journals and textbooks

5.0 Discussion

This section discussed the interactions between taxation as a source of government revenue – tax and taxation as a system (involving tax policy, tax legislation and tax administration) and SDGs. It also looked at how SDGs can affect the tax system.

5.1 Tax and SDGs

The Platform for Collaboration on Tax (PCT) in its first global conference held in New York in 2018 with the theme: Taxation and Sustainable Development Goals established four broad connections between taxation and the achievement of SDGs two of which are: the connection of taxes as a provider of fund to finance the activities of government to support the SDGs and the connection of taxes as an influence on people's behaviour and choices. These interactions only arise when tax revenue is used to finance the implementation of SGDs (Pirlot, 2019) or tax policies are directed towards them.

The most apparent relationship between tax and SDGs is therefore its ability to provide revenue for financing the goals. Huge amount of money is required to meet the requirements of SDGs, which has been agreed, can mostly be got from domestic tax resources. Domestic Revenue Mobilisation (DRM) in the form of taxes is seen by IMF and WBG as the largest untapped source of finance for development plans (Long and Muller, 2017). International Chamber of Commerce (ICC) intrinsically linked tax with development as it provides the revenue needed to reinforce and build infrastructure. Tax also provides a stable and predictable flow of revenue to fund public spending and shape the environment where investment, trade and employment can thrive. Kaldor (1963) viewed lack of tax resources as an impediment to spending more in areas like health, education and social protection and therefore endangers the achievement of SDGs. Long and Muller (2017) opined that more taxes encourages more spending on education, health and social security which are critical to SDGs.

A ratio of tax to GDP of 15% is critical for any country which desires to provide adequate basic amenities to its citizens (Gaspar et al, 2016). However, most developing countries have not been able to achieve this threshold because of their heavy dependence on revenue from their natural resources as the main source of revenue. Well managed commodity-dependent countries could succeed in providing the necessary funds for the achievement of the SDGs without tax revenue and even with frequent fluctuation in the world price of their commodities which they can hardly control. However, most commodity-dependent economies are corrupt and lack transparency in the management of their natural resources to be a reliable source of revenue to finance the SDGs.

Foreign aid and grants appear to be another good source available to finance the SDGs for developing and emerging nations. However in the opinion of Chukwuemeka et al (2014), foreign aids may not be impactful in the achievement of SDGs because of weak institutions and endemic corruption in developing countries. Aids are, additionally, not reliable because of their epileptic nature even after promises made by the donors. For instance, PCT (2018) observed that only few developed nations have honoured their pledges to providing 0.7% of their gross national income in Official Development Aid (ODA) to developing nations as at 2016. Besley and Persson (2014) found that aids hinder taxation in developing countries. There is no doubt that foreign aids have is a role to play in the provision of funds however it cannot be compared with the revenue raising and democracy strengthening potential of tax (Tax Justice Network, 2020). Several empirical studies have confirmed the role of tax revenue in fostering development especially the achievement of SDGs such studies include Adekambi, Shallie and Olaniyi (2022); Halim & Rahman (2022); Sealkept & Bastiaens (2020); Sarka & Ibrahim (2019). We can say therefore, that tax revenue has a direct relevance and interaction with all the sustainable development goals as a provider of funds to finance them.

Taxes can also influence people's behaviour and choices. This can have health, gender equity and environmental implications (PCT, 2018). The imposition of tax on harmful and unhealthy products in the society can curb the consumption of such products and reduce the public health hazard associated with them. For example, tax on alcohol, cigarettes and sugary products apart from reducing their consumption and therefore improving the health of the society can also improve government revenue available for dedication to sustainable economic development goals. The income redistribution impact of tax promotes income and wealth equality in the society (Avi-Yonah, 2005) which is in line with goal 10. Empirical evidence has also shown that the redistributive function of tax has reduced after tax income inequality particularly for the period 1980 – 2017 by 40% in USA and 20% in UK (Blanchet et al, 2019). Moosavian et al (2022) found the taxing of fossil energy consumption and granting of incentives on investment in research and development reduced energy consumption and air pollution which promote the achievements of goals 3, 11 and 13 of the SDCs.

The United Nations emphasised the issue of domestic revenue mobilisation at its 3rd conference on Financing for Development in 2015 (held in Addis Ababa) in terms of more tax revenue by developing countries. More tax revenue has been credited with financing, spending and governance implications. The financing implication involves the bridging of the wide gap between the meagre amount of revenue available and the huge financial demand of the SDGs in developing countries since funding from foreign aids and commodities sales is considered unreliable.

More tax revenue will permit greater spending in critical areas relevant to SDGs like health, education and social security. Tamarappoo et al (2016) reported a recent study by USAID that estimated a 10% increase in tax leading to a 17%, 14% and 3% increase spending on public health in low-income, lower-middle-income and upper-middle-income countries respectively. Gadenne (2016) also found increase in taxes to cause improvement in the quantity and quality of educational infrastructure in Brazilian municipalities whereas increase in federal allocations has no such impact on spending in those areas. Edward (2016) found that spending by some mineral rich countries on health and education are low compared to their level of income probably because they are not from tax revenue.

Moore (2007) opined that more reliance on tax may improve the capacity, responsiveness and accountability of government. His study of tax focused states revealed; amongst others, improved tax administration (capacity), politically more engaged tax payers (accountability) and greater acceptability and predictability of tax (responsiveness). The positive impact on governance by tax breeds public trust in government which is critical for the achievement of goals 11, 16 and 17.

Good as tax as a generator of revenue and tax as an influence on people's behaviour and choice is as a tool to achieve the SDGs it must be handled with care and caution. The UN is pushing developing countries to embark on more domestic resource mobilisation in term of tax, caution must be exercised here because of the negative effect it may have, too much tax is injurious to the individual and the economy, high rate of tax may lead to no tax revenue at all (Laffer, 2004). When tax rate are high, it may lower tax compliance rate and encourage tax evasion with consequent effect on the amount of tax revenue collectible. Too much tax in one economy may cause migration to other economies where tax level is low by companies. The imposition of tax for instance on alcohol and tobacco may lead to gender inequality and tax inequity against men since men have been found to drink alcohol and smoke cigarette more than women (this is against goal 5). Two much tax impede private investment which may affect the attainment of goal 8 seeking to achieve decent work for all, full and productive employment and economic growth which requires private investment and innovation (Long & Muller, 2017). Konan and Asongu (2022) in their study found that high business taxes are detrimental to the achievement of SDGs. Most importantly, Long and Muller (2017) observed that the level of tax revenue currently being generated by some developing countries are higher than what the now developed countries were generating when they were at the level of development of the now developing countries.

5.2 Tax System and SDGs

This subs-section looked at the interaction between tax systems as a whole with the Sustainable Development Goals.

Greening (2015) is of the opinion that developing countries can reap the benefits of growth and build a stronger educational and health system with a strong tax system. The effectiveness of the tax system must be increased and strengthened in order to generate more domestic revenue to finance government contribution to meeting the SDGs (Secretary General, UN, 2018). ICC said that the attainment of goal 16's targets to combat organised crime, reduce illicit financial and arms flows and develop an effective, accountable and transparent institutions at all levels can be achieved with a tax system that provides for an effective, accountable and transparent institutions that supports the SDGs. A good tax system can achieve the target of goal 17 to mobilise resources to improve domestic revenue resources and enhance SDGs achievement.

A tax system can perform both redistributive and regulatory functions apart from its ability to raise fund to finance government activities (Avi-Yonah, 2005). This redistributive function reduces inequality in income and wealth (SDG 5) and end poverty and hunger (SDG 1 and 2). The regulatory function can be used to achieve almost all the SDGs especially goal 3, 7, 11, 12, 13, 14, 15, and 17 by legislating on them.

The importance of taxation as a key instrument available to achieve the SDGs is globally recognised and the international community is leaving no stone unturned towards blocking any loopholes in tax system in order to be able to achieve the SDGs (Pilke & Rasaren, 2018).

5.3 Tax Policy and SDGs

The tax policy is a very important and indeed an indispensable tool in achieving SDGs. Pirlot (2019) believed that tax policy is a powerful tool for mobilising and effectively using domestic resources for sustainable development. Tax policy can be used to achieve multiple goals like reducing inequity, incentivising sustainability and promoting health and wellbeing. Tax policy can be used to promote the achievement of SDGs by focusing policy objectives towards SDGs. For example, tax policy can target the promotion of gender equity by granting tax incentives to women dominated-sector like small scale businesses and/or establish welfare programmes that benefit women. It can also encourage healthy lives and wellbeing by taxing harmful products and exempting healthy ones. It can stimulate growth by promoting relevant sectors of the economy (Pirlot, 2019).

Committee of Experts on International Co-operation on Tax Mutters (2018), asserted that adequate domestic and international policies are useful in reducing inequalities and promoting SDGs. Tax incentive, as a policy, on domestic and foreign investments on production of renewable energy can promote a safe environment (goals 7,10,11,13). By stimulating growth and promoting relevant economic sectors of the economy tax policy can help in generating domestic revenue which can be used to meet the requirements of SDGs.

To achieve goal 8 additional private investment will be needed which tax policy can be used to achieve (ICC). A tax policy that encourages investment and innovation would go a long way in attracting local and foreign direct investments which will promote economic growth with consequent increase in GDP. A tax policy that aligns with investment (both local and foreign) will make possible the achievement of the SDGs especially goals 7, 8 and 9. The one that adopts ability to pay principle which encourages progressivity in tax can help reduce or even eradicate poverty (goal 1) at both domestic and international levels by reducing/closing the gap between the internal rich and poor and between rich countries and poor countries (Pirlot, 2019). Furthermore, an end can be put to poverty by adopting a policy that allocates substantial amount of tax revenue to the poorest or allocating the right to tax to the poor countries. Christian (2018) suggested that tax right should be allocated on the basis of who benefits most from the tax revenue if development was the focus. Also, a policy of revenue earmarking whereby a portion of the revenue is earmark to certain sector of the economy (Buchannan, 1963) can serve to achieve all of the 17 development goals.

Tax policy that promotes environmentally friendly ventures could advance innovation (Kouam & Asongu, 2022) that stimulates the economy to realise SGD 13. Research and Development tax incentives could encourage innovation and higher tax rates for gas flaring can discourage environmental degradation. Granting tax incentives on healthy foods such as organic foods and taxing harmful foods promotes well-being (SDG 3). More so, incentivising renewable energy ventures such as Eco-Car subsidy in Japan (Alhulail & Takeuchi, 2014) and specific tax exemptions for the agricultural sector in Nigeria can be catalysts to SDGs actualisation.

Conversely, the use of tax policy may endanger the achievement of the SDGs. Tax incentives measures, for instance, can lead to revenue loss which outweighs the benefits of such incentives. Tax incentive may not alter behavioural change where the change is going to take place even without the incentive this will lead to a reduction in the amount of revenue available to government to finance the SDGs. A policy of tax waiver, when misused, can also have negative effect on revenue generation. Tax measure may be regressive rather than progressive which leads to gender inequality, for example, taxing male dominated activity to correct an ill in the society may affect equity of tax or promoting women dominated sector to achieve gender equity. A policy of lower tax rate on capital to encourage investment and development than income may lead to inequality in tax since capital investment is the preserve of the rich making the tax system regressive instead of being progressive (Pirlot, 2019).

5.4 Tax Legislation and SDGs

Tax legislations are rules and regulations guiding the imposition and collection of taxes. Tax legislation is intrinsically linked with tax policy as part of the same tax system. The fiscal policies of government must be legislated upon to make it effective, binding; something that can be acted upon and enforceable for no tax is collectible until its backed with the power of law. What the drafters of tax legislation must keep in mind is that the number and the wordings of the tax rules and regulations must be kept simple to enable understanding in the spirit of the principle of simplicity which will also affect the certainty principle and increase fiscal transparency. Fiscal transparency entails that tax legislation are clear and understandable to the extent that tax payers can know, on their own, how they can comply with the tax law and it also entails judicious spending of tax revenue to achieve economic development and of course, the SDGs. A critical attribute of any national institution is transparency and it is key to successful taxation and the success of the SDGs (PCT, 2018). Fiscal transparency and clear tax legislation that make tax laws predictable are necessary for cross-border business, trade, investment, jobs and growth (ICC). Tax legislations set a solid foundation for the mobilisation of revenue which enables the achievement of SDGs.

To achieve the SDGs, Pirlot (2019) said it is possible to enact tax laws with the primary aim of achieving regulatory objective including those of SDGs instead of revenue generation. Income tax treaties will help goal 17 by providing greater certainty for international businesses, fight tax avoidance and reduce the incidence of double taxation. It is possible to use International Tax Treaties to allocate taxing right between rich and poor countries (with greater taxing right to the poor countries) and support the capacity to raise revenue by poor countries (Christians, 2019 as quoted in Pirlot, 2019)). This has the tendency to achieve goal 10. Treaty is able to remove or reduce double taxation and barriers to across border trade and investment, which will increase access to foreign technology and expertise, increase certainty on the part of tax administrators and tax payers thus promoting growth that achieves the SDGs (Pirlot, 2019). Enacting environmental laws is also able to achieve goals 3, 11, 13, 14 and 15.

Furthermore, to achieve a more friendly and sustainable environment for economic development, the instrument of environmental taxes can be explored. Carbon tax, sulphur tax are examples of environmental taxes countries are experiencing with to curbed the emission of carbon dioxide to the atmosphere with consequent adverse effect on the climate and environment, curbing this, will further the achievement of Goals 11 and 13 (PCT, 2018).

However, enacting environmental laws to achieve goals 11 and 13 may be counterproductive. PCT (2019) identified two ways to address environmental problems, command-and-control which uses regulations and standards and market-based instruments which impose taxes, fees and fines. Pirlot (2019) is of the opinion that using market-based instruments for which environmental tax law represents may lead to a right to pollute, where the cost of stopping the pollution is higher than the benefit the polluter derives from stopping it, with no consequent positive effect on the environment. Borenstein and Davis (2016) noted the negative effect of Clean Energy Tax Credit in the US. Environmental law is discriminatory and may lead to a regressive tax system since its imposition does not consider ability to pay. Where the law is also considered too harsh it may lead to moving to other economy with less environmental standard leading to loss of revenue and reduction in economic growth (Pirlot, 2019). Although enacting wealth tax can increase equality it may compromise economic growth (Klenert &Mattauch, 2019).

5.5 Tax Administration and SDGs

The tax system constitutes one of the major interfaces between the citizens and the nation (Bird, 2015) and tax administration appears to be the most important in the relationship between tax system, the citizens and the achievement of SGSs. Tax administration is the face of a tax system. PCT (2018) finds two essentials of tax administration in SDGs; an effective tax administration leads to high revenue collection and promotes trusts in the government which is critical to the achievement of all SDGs. Public trust is particularly critical to the attainment of goals 11, 16 and 17. Without an effective tax administration even a strong tax system will not generate strong revenue (PCT, 2018). How taxes are administered affects public trust in government and plays a critical role not only in shaping economic development but also in developing an efficient country (Birds, 2015).

Tax administration can positively change the relationship between the citizens and the government which may lead to increase in tax compliance rate, this happens, when citizens perceive the administration as equitable and honest, that the burden of tax is evenly distributed and they get public service they value (Pirlot, 2019). A well-functioning tax administration system encourages tax compliance and affects enforcement, reduces the opportunity for aggressive tax planning and tax evasion and expands the tax base. ICC opined that it is important to have a fair, efficient, and effective revenue collection mechanism in order to promote social and economic developments like the SDGs.

The problem with the tax administration system of most developing nations is that they are fraught with inefficiency, corruption and lack of expertise (Chukwuemeka et al., 2014), one reason why the UN – Task Force on Financing for Development recommended the strengthening the tax system of developing countries in the areas of fiscal capacity building and exchange of expertise by developed countries instead of direct cash aids. The Committee of Expert on International Co-operation on Tax Matters (2018) observed that in Africa, politicians, economic elite and the informal sector remain outside the tax net. Increasing the tax base, improving tax compliance rate, lowering inflation are critical to ending poverty and ensuring shared prosperity (PCT, 2018).

Tax administration, which Nerudova et al (2019) referred to as institutional sustainable tax system pillar, is the pillar on which other aspects of the tax system rest.

5.6 SDGs and Tax System

The sustainable development has a global appeal and effect. This is well captured by Mebratu (1998) when he said sustainable development is related to national and international policy development, making it the core element of policy documents of governments, international agencies and business organisations.

We talked earlier of achieving some of the SDGs through tax allocation or tax earmarking. Allocating or earmarking tax revenue to achieve the SDGs while ignoring other areas that tax revenue can spent upon clearly shows that SDGs can affect the tax system in the area of the use of tax revenue

Furthermore, the 2030 Agenda (SDGs) may be able to affect how a tax system runs. SDGs can influence the way tax policies are adopted, implemented and interpreted (Pirlot, 2019). SDGs may have an indirect effect on a tax system through the direct effect exercised on tax policy makers (Deschutter, 2018). This is evident with different aspects of SDGs finding their ways into the tax policies of nations. For examples, developed nations have made it a tax policy, under the Addis Tax Initiative, to direct financial aids to developing countries for the purpose of building and strengthening their capacities and increasing their ability to raise and utilise domestic revenue resources for attainment of SDGs (PCT, 2018). SDGs can also be said to affect tax policies if tax policies are targeted to achieving SDGs alone without paying attention to other aspects of the economy (Pirlot, 2019).

Albeit, SDGs are not laws that must be obeyed and enforced, they represent a set of norms which Persson et al (2016) believe are the softest end of the hard-soft-continuum of legislations. Sustainable Development Solution Network described SDGs as complimentary to the tool of international laws by providing a framework that enhances collaboration across nations, industries, stakeholders and inspires the taking of action. SDGs now guide the design, implementation and interpretation of tax law. As for interpretation, SDGs can influence the interpretation of tax laws, which can have more than one interpretation abinitio by judges giving pro-SDGs interpretations to tax laws, this leads to positive interaction between SDGs and tax laws (Pirlot, 2019).

Tax administration in developing nations stands to benefit a lot from the decision of the developed nations to direct financial aid to support their capacity building and domestic revenue utilisation ability. The end result will be a tax administration that is well equipped with modern technology and expertise leading to an efficient, effective and equitable tax administration system.

6.0 Conclusion and recommendations

This section presented the conclusion derived from the study and offered some recommendations

6.1 Conclusion

This paper has done a three-fold analysis of the likely interactions between taxation and Sustainable Development Goals of UN. First, it looked at the interactions that could arise between taxation as a source of revenue to government-tax and Sustainable Development Goals. The paper believed that domestic revenue mobilization in term of taxes is key to the realisation all the 17 SDGs.

Second, it analysed the manner in which tax policy, tax legislation and tax administration can individually and collectively as a tax system interact with sustainable development goals. The paper believed that they can relate both positively and negatively together and that SDGs need, to a great extent, a strong and good tax system to be achieved.

Thirdly, the paper examined how the SDGs can affect the running of a tax system. It became evident that SDGs are slowly but surely finding their ways into how the different components of a tax system are managed.

7.0 Recommendations

Flowing from the analyses and the conclusion the following recommendations become imperative in order to improve the tax system and achieve the developments goals.

i. An effective taxation and management system of the extractive industry in developing countries must be put in place in order for the industry to contribute its own quota to the much needed fund to finance development generally and especially to support the achievement of the SDGs.

ii. Tax revenue should be directed to support the achievement of the goals of sustainable development either by allocating or earmarking.

iii. Tax revenue should be judiciously utilised to provide amenities the tax payers value and believe are commensurate with tax they paid, this will breed public trust in government, enhance tax compliance and increase tax revenue to support the SDGs.

iv. An optimum level of tax should be determined that will encourage capital formation, prevent tax evasion and bring about equity in the tax system.

v. A strong and effective tax system that is considered fair and equitable should be put in place.

vi. The tax system should be made conducive for domestic and foreign investments in the productive sector for economic growth and attainment of the SDGs.

vii. Tax policy measures should be well thought out and balanced to ensure that the objectives of such policy are achievable and that the benefits therefrom outweigh the disadvantages.

viii. It is necessary to align tax policies to the achievement of SDGs.

ix. Tax policies should be flexible in view of changes in social, economic and environmental externalities.

x. Tax incentives should be limited, well-structured and well-defined goals-oriented.

xi. Tax waiver measures should be sparingly employed and granted only in highly necessary and exceptional circumstances.

xii. Tax laws should be simply worded and kept to the minimum. It must be transparent and up to date.

xiii. Establishment of an effective and efficient institution of tax administration that is considered even-handed, fair, equitable and friendly is not only necessary but also compulsory.

xiv. The institution of tax administration should be well equipped with adequate and modern facilities and qualified staff.

xv. Tax administrators should be trained and retrained on modern techniques of tax administration and the use of modern technologies.

xvi. The tax base should be expanded to especially capture politicians, economic elites and the informal sector of the economy.

xvii. Establishment of a good adjudicating system that is seen to be fair and equitable to promote trust in the tax system is very important.

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