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A SCHOLARLY CONSIDERATION ON THE THEORIES AND LITERATURE OF TAX REFORMS IN SIERRA LEONE

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Abstract:
This study examines how tax reforms have been implemented and how it has influenced Sierra Leone's ability to streamline fiscal structures. The topic of tax revenue mobilization is becoming more and more popular and crucial for emerging nations. The fiscal arrangement that exists between taxpayers and the current political administration is a fiduciary relationship that binds both parties to the right and obligation to effectively and efficiently mobilize revenues. The tax system in use has had a significant impact on government revenue since it allows for loopholes, dishonest tax authorities, inadequate data, and many other issues. This study also applauds the government for strengthening corporate tax authority plans and putting local restrictions on large corporations and foreign governments who conduct business in Sierra Leone. By doing this, taxpayers and tax authorities will be encouraged to be accountable, transparent, and compliant. Additionally, Sierra Leone's tax administration underwent a number of modifications between 2014 and 2019, although nothing is known about how well those reforms fared in terms of raising tax revenue. In fact, reform as a factor affecting tax collection has received little attention in the research on what motivates domestic resource mobilization. The paper evaluates whether reforms are crucial for raising tax revenue by taking into account various aspects of reforms in the tax administration, including tax-related reforms and reforms related to institutions, and using various econometric methods based on ordinary least squares, instrumental variable two-stage least squares, and iteratively reweighted least squares. According to the findings, tax reforms, institutional reforms, and all other reforms put together have greatly improved tax revenue performance. The main takeaway is that greater institutional and tax-related reforms are essential for sustainingly increasing tax revenue collection.

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1. Introduction

The issue of tax revenue mobilization is becoming more and more popular and crucial for emerging nations. There is a growing understanding that domestic tax revenue in developing nations must serve as the main source of funding for development, with foreign help simply serving as a supplementary source. Because of the instability and uncertainty that surround foreign sources of development funding, the 2008 global financial and economic crisis has highlighted the necessity to give domestic resource mobilization more attention. The need to develop sustainable domestic resource mobilization is the main issue (Felix, 2008); (International Monetary Fund (IMF), 2011). Indeed, a number of nations, like Sierra Leone, continue to face the pressing need to raise additional funds from their own tax bases. One of the most significant policies, according to (Wilford & Wilford, 1978), is that emerging countries must increasingly harness their own internal resources to assist economic growth.

The government raises money through taxes to pay for expenditures and development projects. The necessary tax revenue must be obtained by imposing proportionate taxes on part or all of the revenue. One of the oldest activities is tax collecting, which is now regarded as "*one of the pillars of a stable nation*" and "*may also serve as the foundation for the accountable and responsive democratic state system*" (OECD, OECD Annual Report 2008, 2008). In Sierra Leone, a small number of persons were subjected to higher tax rates than the general population as a result of the heavy taxing of a tiny base. Import and export taxes were also high and are still high. Taxation is also intended to fairly distribute the tax incidence, taking the taxpayer's ability to pay into account among those paying taxes in the same income group (OECD, OECD approves the 2014 update to the OECD Model Tax Convention, 2014). The fiscal agreement that exists between the tax payers and the political government of the day is a fiduciary relationship that connects both of them to right and responsibility to effectively and efficiently mobilize revenues. There are two primary ways that taxation is used in the economy. First, to increase revenue so that all public spending can be financed without borrowing. Second, to raise tax money in a fair manner that does not interfere with the nation's economic activity.

The government deficit has consistently characterized public finance in recent years, making it a notable statistic that assesses the effects of government economic policies on the economy. Worldwide, budget deficits in public sector financing have become a common occurrence.

Tax reforms have been designed to increase revenue to support government functions like public spending and service delivery. Due to the widespread problems that have recently affected most countries, this issue has acquired relevance. Numerous countries have implemented tax adjustments as a result of these crises (Bird, Martinez-Vasquez, & Torgler, 2006). A country's development process greatly benefits from tax reform. Because Sierra Leone is a developing nation, reforms are essential. The reforms are implemented in anticipation of improving revenue collection. The government must take care not to harm economic activity with higher taxes while focusing on high revenues.

1.1 Tax Reform

Tax reform is the process by which a nation alters how taxes are collected, mobilized, and used by the current administration with the aim of enhancing tax administration or bringing about social or economic advantages. A new tax law, changes to the way taxes are administered, and closing tax evasion loopholes are a few of the things that can increase tax revenue collections (Morisset & Izquierdo, 1993). Tax reforms in developing nations, notably in Africa, center on issues related to economic policy, paying particular attention to the design of the taxation structure and the management of taxes. In light of this, tax reforms are split between the equivalents of structure and development policy, including concerns such as the effect of alternative taxes on saving and investment and the ensuing difficulties for the macroeconomic balance of the economy (both domestically and internationally). To ensure fairness in the distribution of tax incidence, there must be a coordinated effort to alter the tax code. While they were at it, the stakeholders also needed to address the issues surrounding the tax system's management rationality and make sure that the policies did not have an impact on the economic realities.

The National Revenue Authority Act, which was written and then published in Sierra Leone in the 2000s, marked the start of the reform. This came after significant adjustments to the nation's tax administration in a number of areas. For instance, the tax rate was moderately lowered and the tax band was widened, reducing direct taxes, which required higher indirect taxes to make up for the shortfall in revenue. Indirect taxes were thought to be retrogressive and as a result, placed a significant burden on the disadvantaged, hence the move was heavily criticized for reducing the redistributive effect of the tax system.

The National Revenue Authority Act, 2002 (Act No. 11), an Act of Parliament, was passed on September 13, 2002, and it became the National Revenue Authority (NRA). Before the NRA was established, the government's income collection was dispersed across a variety of MDAs, including the Income Tax Department, Government Gold and Diamond Office, and Customs and Excise Department. The consolidation of these tax collection organizations under the National Revenue Authority was one of the most notable tax system improvements in Sierra Leone. Prior to the establishment of the NRA, little revenue was collected. Revenue collection grew from Le231.8 billion in 2002 to Le277.8 billion in 2003 in the first year the NRA was founded. As income collection increased significantly from a low foundation of Le 277.8 billion in 2003 to Le 2.219 trillion in 2013, this pattern has persisted year over year.

2. Statement of Problem

Major tax reforms were implemented in Sierra Leone in an effort to enable a rapid increase in revenue collection because of declining tax receipts. This has not happened. It is now necessary to seek for ways to raise the amount of money the government generates from taxes after the National Revenue Authority (NRA) consistently fails to meet its annual objective. Additionally, a decentralized system's new government structure is expected to result in higher government spending. This requires that decision-makers seek for strategies that helped the government generate more revenue. Despite the changes and modernization projects that the NRA introduced in an effort to increase revenue collection, the authority has been falling short of its income goals. In order to determine if the reforms have had any influence on tax collection and whether economic variables are responsible for the gap in income collected, research is necessary.

The strategic management process, the connection between risk profiling and revenue performance, the enhancement of service quality measurement for sustainable tax administration, the efficacy of revenue collection strategies, and tax-payer non-compliance behavior are just a few of the studies done on NRA. Other examples include solutions to problems with mobilization and the implementation of customs reforms, research on the efficiency of taxpayer education as a tactic for revenue collection, and the impact of reform programs on NRA personnel morale.

2.1 Study Objective

- The general objective is to examine the literature on taxation and reforms in Sierra Leone.

2.2 Research Questions

- What is the relevant literature on taxation and reforms in Sierra Leone?

2.3 Significant of the Study

The study is extremely helpful to many people. First, it was utilized by the National Revenue Authority to pinpoint the numerous reforms that have an impact on Sierra Leone's revenue collection. In terms of implementing better reforms for increased revenue performance, Sierra Leone stands to gain significantly from enhanced tax revenue collection. These studies were used by a number of different parties, among other things, as a starting point for additional conversations about taxation in Sierra Leone. How tax administrators can increase the collection of tax income and close loopholes.

2.4 Scope of the Study

The scope of this study is limited to the topic (Evaluating the impact of tax reforms system on revenue mobilization in Sierra Leone. A case study, the National Revenue Authority. NRA) covering a period of 2003 to 2021.

3. Method

3.1 Introduction
Research technique refers to the organized approach of performing research as a whole. The word is typically thought to comprise research design, data collection, and data analysis despite the fact that many distinct procedures are utilized in many different forms of research. This chapter's primary objective is to introduce the research design, study location, sample size, research methods (qualitative or quantitative), population under investigation, sampling strategies, data collection instruments, type of data collected (primary and secondary data), and data analysis methods used in this study.

3.2 Study Design
This study makes of used an explanatory research design because of the nature of the investigation. This reduced prejudice and increased the validity of the data (evidence) that was gathered. (Kombo & Tromp, 2006) contend that explanatory research focuses on knowledge about people's beliefs, routines, or any of the varied educational or societal concerns under examination. In addition, the study was conducted using documentation and questionnaires. In order to acquire as much information as possible and provide realistic research findings and conclusions, both quantitative and qualitative data were used by the researchers.

3.3 Area of the Study
This study was conducted in Sierra Leone, specifically in Western Area. The reason behind selecting this area under the study was the availability of various kinds of tax administrators with a range of business size and understanding. The existence of many administrators in the region adds confidence to the researchers that the room of tax reform is inevitable.

3.4 Study Population
The study targeted tax officials of National Revenue Authority (NRA) and taxpayers who are responsible for tax reforms and revenue mobilization and tax payments or tax reforms respectively. The population included both males and females especially tax administrators and taxpayers because tax is usually paid by both male and female individuals who have income or property. One of the reasons behind selecting this Country as an area under study was, due to the availability of various categories of tax personnel with a wealth of experience.

Table 1: Sample Plan

Layers	**No. of Respondents**
Custom and Excise Department	25
Audit Department	20
Domestic Taxes Department	30
Finance and Accounting Department	15
Tax Payers	10
Total	100

Source: Field data, 2021.

The research results help to identify and clarify driving factors that influence Tax reform policies which were used to identify the existence of the policies implemented by the National Revenue Authority (NRA).

3.5 Sources of Data

Both primary and secondary data will be collected during the study in order to get precise outcomes.

3.6 Primary Source of Data

In this study, a structured questionnaire was used as research instrument. (Saunders, Lewis, & Thornhill, 2003) refers to the questionnaire as a general term to include all techniques of data collection in which each person (respondent) is asked to respond to the same set of questions in a predetermined order, hence the questionnaire is used to gather data information on the taxpayers and NRA officials such as nature of policy, forms of tax reforms and type of Tax paid from the targeted population.

Questionnaires have both closed and open-ended questions. Close-ended questions were used to measure respondents' knowledge and perceptions of the Tax reforms. Open-ended questions were used to capture respondents' opinions on factors influencing Tax reforms policies and strategies that can be used to control Tax reform. This will be advantageous to respondents as they give complete freedom of response. The questionnaires were structured in simple English which was easily understood by respondents.

3.7 Secondary Source of Data

For this study, other information and data regarding Tax reforms policy such as statistical records of Tax reforms was collected from National Revenue Authority (NRA) offices in Freetown for the period of 3 years i.e. 2019 to 2021. The data is obtained through documentary surveys and reviews.

3.8 Instruments of Data Collection

Documentary review, observation and interview are proposed for the exercise. However, the researchers were expected to be flexible to employ any data collection method depending on the response of the respondents and prevailing circumstances.

4. Presentation and Discussions of Theories, Literature of Tax Reforms in Sierra Leone

Governments utilize taxes for a variety of things. They are increased to cover government expenses for the delivery of goods and services as well as transfer payments. They are employed in fiscal policy to control the economy's total demand and promote better justice in the distribution of income and welfare across the nation. In addition, taxes are levied in order to balance the country's balance of payments by limiting the number of imports. Governments often worry that their tax structure makes it easier to achieve a number of public policy goals when enacting tax reform. The tax system must equally distribute the burden of paying taxes and prevent resource misallocation in addition to providing the government with enough money. The pattern of production, trade, consumption, saving, and investment shouldn't be affected by the tax reform. To make compliance and collection easier, the tax system should also be administratively feasible. It is obvious that achieving all of these goals at once is challenging. The World Bank stated in 1988 that tax reform involves trade-offs. We evaluate the theoretical and empirical literature on tax reform in developing nations in this chapter. First, we review some of the goals of a tax reform: revenue generation, promotion of growth, savings and investment, promotion of equity and efficiency, and simplicity of administration and compliance. Next, we discuss the approaches to development taxation, namely, optimal tax reform and market-oriented tax reform. This is followed by an examination of the experience of developing countries in tax reform. Finally, we draw some lessons from the experience of developing countries in tax reforms and the emerging themes that point towards the future direction of reform issues.

4.1 Goals of Tax Reform

This section discusses some of the goals of tax reform: revenue generation, promotion of growth, saving and investment, achievement of equity and efficiency, and simplicity in administration and compliance.

4.2 Revenue Generation

The most important reason why taxes are levied is to raise revenue for the government. Governments require resources to meet a wide variety of expenditures, ranging from public administration and defense to the provision of social services and infrastructure. In developing countries, raising the level of government expenditure, particularly public investment in key areas of the economy, has often been regarded as a necessary element of the development process (Ahmad & Stern, 1989).

Over the long term, revenue generation must keep pace with the expansion of expenditure. The government should ideally choose a tax base that will expand in relation to spending so that a few changes in tax rates can meet the revenue requirement of public expenditure growth. The importance of tax revenue generation in developing countries cannot be overstated.

The revenue requirement of a country is closely related to the efficiency of revenue utilization. The additional revenue raised could either be used to improve the quality of life and lay the foundation for growth or be wasted on inefficient projects not linked to development. While growth in public expenditure would need to be matched by revenue expansion, the relationship can also operate the other way. As noted by Please (1971), the rapid growth in revenue can sometimes stimulate the rapid expansion of the expenditure pattern that would call for further revenue growth. When these effects work quickly, the rapid growth in expenditure can give rise to public finance difficulties, as was experienced by countries such as Mexico and Nigeria after receiving revenue windfalls from the oil price increases of the 1970s.

4.3 Tax Revenue and Level of Development

A study of the tax structure of 86 countries around 1981 (Tanzi, 1987) finds that on average, the ratios of taxes to GDP collected by developing countries amounted to 13 per cent for countries with per capita income below $849 and 18 per cent for countries with per capita income between $850-$1,699. Ten low-income countries had tax ratios of less than 10 per cent, while eleven medium-income countries had tax ratios exceeding 25 per cent. Variations in tax ratios to GDP could only be expected because of differences in the levels of public spending, tax base and structure, administrative capacity, as well as historical and cultural factors. This is demonstrated by the increase in the central government revenue share to GDP, which increased for middle-income nations from 14% in 1960 to 18% in 1970 and 24% in 1980 (Stern, 1990). Numerous factors determine the level of taxation, according to studies done in the 1970s. Urbanization, financialization, the relative importance of the mining and agricultural industries, and the significance of international trade are among them.

Countries in the early stages of development lack 'tax handles' or simple ways of collecting revenue. (Hinrichs, 1966) relates the pattern of change in tax structure with a level of development with a fourfold classification: traditional, transitional (which includes 'breakaway' from old and 'adoption' of new), and modem. Traditional societies rely on direct taxes on agriculture, poll taxes and non-tax revenue. As society becomes more developed, indirect taxation becomes more important, particularly trade taxes if it is an open economy. Indirect and direct taxation gain in importance as domestic production capability, monetization and transactions increase within the society. This is only a stylized characterization and does not suggest a deterministic pattern that all countries will follow. The averaging of the tax structures of low-income countries used in the study may be misleading since the trends of direct and indirect taxes of individual countries may be different.

The Fiscal Affairs Department of IMF had undertaken studies that explore the cross-country relationship between identifiable tax handles and tax ratio. These 'handles' are taken to be a proxy for taxable capacity. "*Studies on tax elasticity and buoyancy carried out for various individual countries have found that general sales taxes, excises and consumption taxes have elasticities in excess of unity. Income taxes are found to be an elastic source of revenue* *in some studies but not in others. Custom duties and stamp duties are relatively inelastic"* (Ahmad & Stern, 1989). these studies are interesting, but they do not provide direct guidance for policy since the estimated elasticity of a particular tax relates only to the actual revenue collections during the period under consideration.

4.4 Promotion of Growth, Saving and Investment

4.4.1 Growth

In examining the relation between the level of taxation and the rate of economic growth for twenty countries, (Marsden, 1983) concludes that countries with lower taxes experienced higher rates of growth. In the countries studied, lower taxes are associated with higher real returns to savings, investment, work, and innovation, as well as increasing the supply of factors of production and raising total output. The fiscal incentives provided by low-tax countries appear to have shifted resources from less productive to more productive sectors and activities, thereby increasing the overall efficiency of resource utilization. The reverse appears to be true for some high-tax countries. While this finding is illuminating and points towards 'supply side' economics, there are problems of comparability and interpretation at the level of aggregation adopted. In the World Development Report (1988) (World Bank, 1990), tax levels are shown to be rising in all countries in recent years regardless of income levels, economic structures, or growth rates.

In designing a growth-promoting tax system, (Ebeke, 2010) emphasizes the need to exempt the poor from taxation and to keep taxes on profits low or non-existent in order to stimulate entrepreneurship, and especially risk-taking. By explicitly exempting capital income, it is possible to achieve economically neutral taxation of new investment (Musgrave R. , Tax reform in developing countries". In D. Newberry and N. Stern, eds, 1987) notes the importance of the administrative and political factors in a growth-promoting tax system. Favorable administrative and political factors are important because private capital investment and private savings are strongly encouraged by a stable and predictable fiscal system. As (Pigou, 1920) argues the accumulation of capital is discouraged in a system that has unequal treatment of different people without a good cause since this leaves a sense of insecurity as to who may be the next victim.

4.4.2 Savings and Investment

There is a large body of studies examining the economic effects of taxes on savings and investment in developed countries; most notably in the United (Bosworth & Westaway, 1984). However, no clear conclusions have emerged on the key issues. Aggregate level of savings is not particularly sensitive to tax-induced changes in the rate of return, although tax factors may alter the composition of financial savings (Bird & Oldman, 1990). Total national saving consists of domestic private saving, public saving and foreign saving. As argued in (Musgrave R. , "Tax reform in developing countries". In D. Newberry and N. Stern, eds, 1987), the effect of taxes in discouraging private savings can be offset by the resulting increase in public savings.

Many developing countries use incentives to encourage investments. (Shah & Toye, 1978) perform a survey of the range and type of incentives commonly employed in developing countries and their effect on investment. There are essentially three approaches that researchers have used to examine the relationship. One method used to measure the impact of fiscal incentive schemes is to look for changes in the share of investment in the gross national product after the incentives have been introduced. This approach was adopted by (Katz, 1972) for (Tanzi, 1987) for Ecuador.

4.5 Promotion of Equity

4.5.1 Benefit Principle

Tax policy has always been driven by concerns about equity. There are two ways to define equity or equality. First, the "benefit principle" states that contributions should equal benefits received. Second, donations should be made in accordance with the "ability to pay principle" or ability to pay.

The benefit criterion links expenditure with tax and where each taxpayer would be taxed in line with his or her demand for public services. While the general benefit tax may be of theoretical interest, this principle is applied to the provision of particular services through the charging of fees, user charges, or tolls. The World Development Report (1988) argues that user charges are efficient in funding public expenditure and should be used wherever a publicly produced good or service can be sold. Tax financing should be reserved for cases where user charges are not appropriate, such as where the costs or benefits of public goods cannot be assigned to individuals, or taxes are used to compensate for market failures, or to achieve a distributional goal (World Bank, 1990).

Benefit theorists differ in opinion on whether burden distribution should be proportional or progressive. In interpreting the benefit principle, the issue is whether to focus on the cost of the service rendered to a particular person, or whether it is on what a person would be willing to pay (Musgrave, 1985). In the first approach, the optimal quantity to produce and cost a public good is where the marginal benefits of individuals equal the marginal costs of production, and each individual is taxed according to the marginal benefit derived from the public good (Cullis, Jones, & Jones, 1998). In the latter approach, the benefit tax becomes a Lindahl price.

4.5.2 Taxing Consumption

The tax base has frequently been used as income. Consumption, on the other hand, has received support as the best option for a more equitable tax base. By omitting savings, the consumption tax approach differs from the income tax approach and imposes the same tax on those with equal spending capacity. As Kay wrote in the Telegraph on 3 April 1995, the share of general consumption tax in tax revenue for the OECD countries increased from 1.7 per cent in 1965 to 17.1 per cent in 1992, while corporate income tax, specific taxes on goods, and property taxes declined during the period. The trend has been movement away from taxes that require the excise of judgment to taxes that are based simply on transactions. In developing countries, the burden of income tax is predominantly shouldered by workers in the formal sectors. The difficulties in implementing income taxes in developing countries as well as under inflationary conditions have led a growing number of tax economists in recent years to advocate shifting from income tax to consumption tax (Bird & Oldman, 1990).

4.6 Promotion of Efficiency

Efficiency is an important requirement of a good taxation system. The operation of the tax system is costly not only because of the costs of tax administration and compliance, but also for the excess burden it creates. The excess burden is also known as dead-weight loss or efficiency cost, which is a loss of welfare above and beyond the revenues collected. Taxes change the economic environment in which a consumer may be made better off or worse off. Some levels of utility should be used as a reference for the compensated demand function arising from price changes as a result of taxation.

Following (Hicks, 1942), the two commonly used measures of the welfare effect of a price change are equivalent variation (EV) and compensating variation (CV). An equivalent variation uses the current prices as the base and asks what income change at the current prices would be equivalent to the proposed change in terms of its impact on utility. Compensating variation uses the new prices as the base and asks what income change would be necessary to compensate the consumer for the price change (Varian, 1992). An important way of assessing the efficiency of a tax system is to measure the excess burden, which is the loss of welfare in excess of the tax revenues collected.

When considering the effects of several taxes at once, the Hickslan variations are used as measures. (Hause, 1975) uses the equivalent variation and suggests that the excess burden of taxation is how much more taxes could be collected from the consumer than is currently collected, with no loss in utility, if the collection method were lump-sum taxation. On the other hand, (McFadden, 1974) advocates the use of the compensating variation by defining excess burden as the sum that the government must provide to the consumer in addition to tax revenues in order for him to maintain the baseline level of utility.

4.7 Optimal Commodity Taxation

Since the application of the lump sum tax is limited, a normative question in taxation is how to design a tax system that will yield efficient and fair outcomes. The trade-off between equity and efficiency loss is central to the concept of optimal taxation. In the case of optimal commodity taxation, the 'first best' solution is to tax all goods, including leisure, at the same rate since this would be equivalent to a lump sum tax that has no excess burden. Since it is impossible to place a tax on leisure, neutral taxation is not efficient. Some excess burden is inevitable when taxes are imposed on goods other than leisure. It will be necessary to choose a 'second best' solution to minimize the overall excess burden of collecting tax revenues.

As long as there are no cross effects between goods, tax rates on commodities are set inversely proportional to price elasticities of the goods. Taxes on goods should not be set uniformly in an efficient tax system. Higher taxes are levied on relatively inelastic goods where the potential for distortion is much lower than on goods with a higher elasticity of demand.

Building on the implications of (Sandmo, 1987) that revenue can be increased efficiently by taxing more heavily the goods that are complementary to leisure. The intuitive reasoning is that if it is possible to tax leisure, then the 'first best' result would be obtained without excess burden. Since the authorities cannot tax leisure, taxing goods that are complementary to leisure can indirectly lower the demand for leisure.

4.8 Optimal Income Taxation

The government would also be interested to design an optimal income tax to raise revenue. The model assumes that the total income available is fixed and individuals have identical utility functions that depend only on income and exhibit diminishing marginal utility functions. For maximization of social welfare, each person's marginal utility of income should be equal, implying that income levels should be equal. In policy terms, the government should impose income taxes such that the after-tax distribution of income should be as equal as possible. This model implies a highly progressive tax structure where the rich are taxed heavily up to 100 per cent marginal tax rate, until complete equality is reached.

One way of accomplishing this is for the government to make income transfers from the rich to the poor by means of a negative income tax which consists of a lump-sum payment made to everybody, and thereafter a tax is levied on all other income.

4.9 Simplicity of Administration and Compliance

An important aspect often overlooked during attempts in reforming taxes is the improvement of the institutions governing tax administration and tax compliance. According to (Gillis, 1989), most of the early post-war reforms focused primarily on changing the tax structure alone, which would be a sufficient condition for the failure of comprehensive, if not partial reforms. In reforming the tax system, it is necessary to keep the system as simple as possible for effective implementation. This is especially the case in developing countries given a lack of trained administrative personnel, resource limitations, and a lack of accounting sophistication among taxpayers.

Voluntary compliance is central to taxation where the large masses of taxpayers submit accurate reports of income and make timely payments of tax. Without voluntary compliance, the scale and scope of problems may be more than what any tax agency can handle (Bird & Zolt, 2008). A complicated reform can generate serious implications on tax administrators and taxpayers. The tax administration that requires high level of expertise to absorb the new procedures would be depleted of its personnel. As the public demand for more tax expertise to cope with the new procedures, the former tax administration employees would sell their skills as private tax advisers (Bird & Zolt, 2008).

In the case of Indonesia, the two proximate objectives of its tax reform which are considered essential for obtaining the other tax goals are the drastic simplification of the tax structure and the depersonalization of tax administration. Before the reform, the criteria for exemptions for small firms were complicated and tax officials had many discretionary authorities to grant them. Hundreds of ad hoc amendments had been adopted, which created a law that was incomprehensible to tax payers and tax collectors alike. The tax system, which was used to serve numerous non-revenue goals, became excessively complicated, replete with anomalies and vulnerable to corruption. The adoption of transparent criteria and the reduction of frequent contact between tax officials and tax payers reduce the scope of corruption in tax compliance and collection (Gillis, 1989). The tax simplification in Indonesia does not only mean having lower and more unified tax rates; it also involves dismantling all kinds of tax incentives and broadening of the tax base.

4.10 Approaches to Development Taxation

After the Second World War, there are essentially two traditions influencing the design to development tax policies. First is the interventionist tradition that believes that the government could and should influence the achievement of a variety of policy objectives through the tax system. Prominent analysts using this approach include (O'Connell, 1987). The second is the reductionist tradition that argues the government cannot achieve many of the intended policy goals and it should not try to do so. The second approach, first advocated by (Bauer & Yamey, 1962), is very much in the mould of the classical economics tradition and is now gathering a wider appeal (Bird & Oldman, 1990).

4.11 Optimal Tax Reform

Optimal taxation, which has been the subject of theoretical research in recent decades, is very much linked with interventionism. (Newbery, 1997) explore into the application and implications of the optimal tax approach for developing countries. The optimal tax theory provides the foundation for sound empirical work by sorting out 'the grammar of the argument' (Atkinson & Stiglitz, 1980) and increasing rigor and formalization of the analysis (Bird & Oldman, 1990). (Ahmad & Stern, 1989) have examined questions such as the design and reform of indirect taxation in terms of optimal taxation for India and Pakistan.

The central question in reforming a tax system is how best to raise additional revenue, since the extra taxation would affect the pattern of incentives and costs for different households and the productive system. The government has to consider how the tax changes are to be enforced and at what cost. The goal of optimal commodity taxation is to raise revenue from taxes on goods with as little loss of household welfare as possible

The usefulness of the optimal approach to tax reform should be weighed against the reservations expressed on some of the policy recommendations of the optimal tax theory (Lindbeck & Weibull, 1987), the demands it makes on data requirements (Deaton,

1987) and its insufficient recognition of the administrative dimension of tax reform (Bird, Martinez-Vasquez, & Torgler, 2006). (Lindbeck & Weibull, 1987) provides three arguments against using optimum taxation as a basis for actual policy advice both in developing as well as developed countries. Firstly, while there are many alternative adjustment mechanisms for taxes, the optimum taxation formula only takes into account a small number of the methods used by individual agents to adjust (such as switching between leisure and labor or changing what they consume). Secondly, even to calculate a single type of adjustment mechanism would require the optimum tax formula that relies on extremely special assumptions, such as identical preferences of all individuals, and special forms of the production function, such as the Cobb-Douglas functions. Thirdly, the calculations are very sensitive to alternative specifications of the various functions and the statistical parameterization and are, therefore, subject to arbitrary decisions.

4.12 Market-Oriented Reform

According to (Lindbeck & Weibull, 1987), tax reform is a component of a larger initiative to implement liberalization policies and "get the prices right" so that the market (rather than the government) is left to manage resource allocation. This would need to change existing policies in many nations, including lowering protectionism, lowering interest rates, and getting rid of tax breaks for saving, investing, and working. It is unclear whether taxation would increase or decrease as a result of liberalization. While the uneven income distribution that results from reliance on the market may necessitate larger public budgets and taxes for redistribution, the reduction in tariffs may call for new sources of tax collection. On the other hand, liberalization might result in cheaper taxes by reducing enterprise subsidies, increasing reliance on user fees for various public services, cutting back on public bureaucracy, and improving the performance of the public sector. The demand for public savings might decrease, leading to a significant tax reduction and greater private saving incentives.

4.13 Supply Side Economics

The adoption of liberalization and market-oriented policies has now more or less become the accepted conventional wisdom for economists. In the 1980s some economists advocate market reforms under the guise of 'supply-side economics' which was considered by some as the remedy for the economic problems of the eighties. Supply-side economists believe that free markets, with few exceptions, allocate resources most efficiently. While they accept the existence of pure public goods and some merit goods, they argue that policymakers would not necessarily provide even these goods in the optimum quantity or at the lowest possible costs.

The political philosophy underlying supply-side economics comes from the writings of (Downs, 1957), (Niskanen, 1975) and (Breton, 1974). These writers regard governments as essentially inefficient because of their lack of market discipline, and the agents of government have personal objectives that differ from the goals of society.

Supply-side economists maintain those government regulations that are aimed at protecting consumers and workers distort relative prices and should be eliminated to improve resource allocation in the economy. Most welfare and entitlement programmed as well as high personal income tax discourage work effort. The reduction of these distortions would encourage savings and production by allowing the economic incentives of a free market to work.

The fundamental ideas behind supply-side economics are not brand-new. In a sense, supply-side economics, which emphasizes the relevance of government economic policies having negative substitution effects and the purpose of efficient resource allocation, is a kind of mainstream classical and neo-classical economics. The merits of adopting the supply-side approach in development economics are discussed by (Bauer R. A., 1957) and (Iyer & Ann Arbor, 1958) even before this approach was 'popularized' in the 1970s.

4.14 Experience of Developing Countries in Tax Reforms

In recent years, many developing countries have undertaken tax reforms that vary in scope, context, substance, and timing. For some countries, the reforms set in place effective and viable tax systems that survive for many years. A notable example is the Japanese tax reform packages of 1949-50 that were based on the recommendations of a team led by (Shoup, 1987). For some other countries, the reforms were short-lived or efforts had not proceeded beyond the proposal stage. The comprehensive reform effort in Bolivia was aborted in 1976-77, while the expenditure taxes proposed for India and Sri Lanka were discarded because of unsatisfactory performance.

4.15 Scope of Tax Reforms

Tax reforms can vary in breadth and scope. Many tax reforms, especially the early post war reforms, are concerned with changes in tax structure, but this is not a sufficient condition for successful reform in developing countries. There is a need to introduce changes to the tax system to address problems with tax administration and tax compliance. As noted by (Gillis, 1989), tax reform can be comprehensive in encompassing most or all-important revenue sources or efforts can be partial by being confined to one or two tax sources. Among the very first countries to adopt a comprehensive post-war tax reform was (Kaizuka, 1992) which tried to rebuild itself after the war (Kaizuka, 1992). The reform package involved improving the entire tax system to make income taxation as the basic source of revenue in Japan, raising the level of tax sophistication, and improving tax administration (Pechman, Joseph, & Kaizuka, 1976). Indonesia enacted comprehensive tax reforms in the mid- I 980s to the entire tax system that had become inordinately complex. Jamaica reformed its taxes to simplify the tax system and minimizes the adverse effects of incentives. It's complicated, narrowly based income tax was replaced with a broadly based, single-rate tax (Bahl, 1989). Several Latin American nations also developed plans for significant tax revisions. These include Columbia

(Musgrave & Gillis, 1972), Venezuela (Shoup, 1987), Chile (Harberger, 1989), Bolivia (Musgrave & Gillis, 1972), and Chile (Harberger, 1989).

4.16 Context, Substance and Timing

Countries have adopted a variety of reforms to rectify weaknesses in the tax system and meet certain goals, such as revenue, equity and resource allocation. Tax reforms are often motivated by the need to raise revenue in order to meet increasing public sector expenditure commitment or overcome a financial crisis. The partial reforms in Colombia in 1965-66 and Peru in 1968 were motivated by a financial crisis, while those adopted for Venezuela in 1958-59 and Colombia in 1968-70 were meant to raise revenue to finance new expenditure on education and health (Gillis, 1989). However, revenue enhancement was not always the primary consideration. For instance, the post- war reform programmed for Japan did not place revenue enhancement high on the agenda. Japan was in a state of near ruin and the priority was the creation and operation of a sound tax system (Shoup, 1987). The Indonesian reform was motivated by the need to enhance the size and 'elasticity' of non-oil revenue. The policies are intended to be revenue neutral in the short run, although the simplification of the tax system is expected to increase the effectiveness of tax administration and compliance and generate increased revenue in the long run (Gillis, 1989). The Indonesian experience has shown that the circumstances of the country should be central in organizing and carrying out tax reform. Foreign consultants kept a low role while domestic experts and decision-makers were involved from the start in the creation of the reform package as a strategy to increase the acceptability and success of the tax reform.

Prior post-war initiatives to alter the tax code in developing nations placed a strong emphasis on income distribution and the progressivity of the tax code see (Shoup, 1987) and (Musgrave & Gillis, 1972). By the mid-1970s, there was growing skepticism about the efficacy of taxes to bring about income redistribution. According to the (World Bank, 1990) taxes in developing countries often fail badly in terms of horizontal equity because of poor tax coverage and arbitrary enforcement. Some formal activities may be captured by the tax net, but not the informal or hard-to-tax formal activities, thereby undermining the system's credibility and the willingness of the taxpayer to comply. The tax systems are also not successful in vertical equity despite the highly progressive rate structures. The World Bank asserts that the role of taxes in promoting equity lies more in the revenue that is raised for distributive spending, especially for poverty alleviation, rather than the structure of taxation per se.

Tax provisions have traditionally been used by governments to guide private firms and individuals either towards or away from particular investments and activities. Bolivia, Brazil, Colombia, Ghana, Indonesia, Liberia, Jamaica, Malaysia, Nigeria, Pakistan, Singapore, Sri Lanka, Sudan, Turkey, and Venezuela are a few of the nations that heavily relied on tax incentives to encourage growth and development from the 1960s to the 1980s (Gillis, 1989). There are at least four strategies that can be used in subsidizing investments through the granting of investment incentives: (a) subsidies all new firms or all new investments; (b) limit subsidies to all firms within a well-defined set of industries; (c) subsidies firms which meet a set of criteria; and (d) restrict subsidies to firms that would not invest without a subsidy (Usher, 1977).

Despite the pervasive use of tax incentives, there have been few attempts to evaluate the effectiveness of these incentives (Bird & Oldman, 1990). The evidence of the effectiveness of incentives on investments in developing countries remains unclear. (Usher, 1977) conclude that 'their impact is either slight or unknown' and the persistence of their use is influenced by political economy. According to (Gillis, 1989), later reforms in the 1970s and 1980s have moved towards tax neutrality in view of the skepticism of the efficacy of tax incentives. For instance, the Indonesian reform of 1983- 84 abolished all special tax incentive provisions, while the Bolivian reforms of 1986 and the Jamaican reforms of 1986-87 were addressed toward 'getting prices right'. The Bolivian reform shifted away from incentives and adopted a uniform rate of VAT with no exemptions, while the Jamaican reform abolished 16 special purpose tax credits in the personal income tax and curtailed company tax incentives for agricultural and industrial firms (Gillis, 1989) and (Bahl, 1989).

4.17 Economic Transformation and Fiscal Reform

During the last twenty-five years, Malaysia enjoyed rapid economic growth and high standard of living despite experiencing two recessions in the last two decades. Its per capita income rose faster than that of the developed countries and most resource-rich Latin American countries which shared similar economic structures. The country has a good track record of sound economic management, high savings and investment, and low inflation. It has successfully reduced poverty and made notable progress in restructuring the society.

Although growth was rapid during the last twenty-five years, the economy experienced sharp fluctuations. In addition, it faced problems of poverty and disparities among ethnic groups and regions. In response to changing domestic needs and external circumstances, the Malaysian development policies during the last twenty-five years had shifted from one of fiscal activism to fiscal restraint, from an expansionary to a much trimmer public sector, from the government acting as the 'spearhead' of development to the private sector as the engine of growth. Despite the policy shifts, the country maintained a high degree of consistency and effectiveness in policy formulation and implementation. This had enabled Malaysia to overcome its problems and move ahead to its next stage of development in a relatively short time. This chapter provides an overview of Malaysia's economic performance as well as economic management and fiscal policies since 1970. It gives a historical review of the country's economic development and analyses the underlying reasons for embarking on policy reforms. This discussion is aimed at providing the background and socio-economic context for our analysis on the tax system, which will be pursued in the later chapters. In the next section, we discuss the four phases in Malaysia's economic transformation and accompanying development policies. The third section examines public expenditure and revenue for the last twenty-five years, while the fourth section discusses the policies for the nineties and their implications on fiscal policies.

4.18 Economic Transformation

For analytical purpose, it may be useful to examine the Malaysian economy in terms of four phases of business cycle and economic management policies. The first phase (1970 to 1979) is a period of high growth accompanied with the adoption of the New Economic Policy. The second phase (1980 to 1984) saw economic boom amidst the spiraling of public expenditure and debts that made it necessary for the country to re-orientate its programmed and fiscal policies. In the third phase (1985 to 1986), the country experienced the worst recession since independence. The fourth phase (1987 onwards) marked the rapid turnaround in the economy that placed it on a path of high economic growth.

4.20 Adoption of the New Economic Policy

It would be useful to provide a brief background to the formulation of the New Economic Policy that was to become the watershed in Malaysia's socioeconomic policies. In the 1960s, Malaysia was one of the most prosperous Southeast Asian countries, with an economic growth rate averaging 6 percent per year. It had just attained independence and was resource rich, being the world's leading exporter of rubber and tin. Despite economic success at the aggregate level, poverty was prevalent and disparities among different segments of society were widening. The incidence of poverty was disproportionately high among the Malays, whose per capita income was only half that of the Chinese and two-thirds of the national average. Clearly, the benefits of economic growth had not 'trickled down' as was believed by the fashionable development theories at that time, and dissatisfaction of the people was lurking beneath the calm surface of fragile communal stability. The inter-ethnic dissatisfaction was heightened by pre-election political campaigns of 1969 that touched on the raw nerves of racial sensitivities. These culminated in the outbreaks of racial conflicts in major towns of the peninsula during the aftermath of the national elections, a traumatic event known as 'May 13'. This inter-ethnic violence sent shock waves down the country. Parliament was suspended and a state of emergency was declared. The National Operations Council was formed to govern the country. In 1971 the New Economic Policy (NEP) was formulated and pronounced in the Second Malaysia Plan I. Since background papers on the formulation of NEP are not available in the public domain, it is probably fair to say that the policy makers realized that the communal riots represented an alarming fissure in the Malaysian society, which was composed of three major races, each with its own language and dialects, customs and traditions, religious beliefs, dietary preferences and habits. Even occupations and locations were identified with race. There are ample examples of societies with more homogenous characteristics which were torn apart by years of political tension and conflict. For a society that was so differently constituted, it became even more crucial for the situation to be handled with great care and foresight. If handled well, the country could be on the road of national reconciliation. Even more, it had every potential of becoming a vibrant, dynamic society, combining the strengths of different ethnic groups and where the inter-ethnic differences could even become a source of creative stimulation and enterprise. However, if handled badly, this would result in a volatile cocktail that could lead to the disruption and eventual break-up of the Malaysian nation. Accordingly, national unity was elevated into the over-riding objective of national development efforts. The strategies to achieve this national objective were two pronged: poverty eradication and restructuring of society. This pronouncement was an acknowledgement that certain affirmative actions were needed to redress the imbalances in society. It was also a recognition that the pursuit of economic growth by itself was no longer considered to be adequate or sufficient in developmental terms. In 1971, Malaysia decided that its economic growth must be coupled with equity. This was a substantial advance of the policies of many developing countries where discussions were about 'trade-offs' between growth and equity (Killick, 1983). Later, the influential World Bank's study Redistribution with Growth (Chenery, Ahluwalia, & Duloy, 1975) called for a paradigm shift in the approach to development. In the introduction of the book, Chenery noted that despite a decade of rapid growth in underdeveloped countries during the sixties, this growth had been very unequally distributed, thereby calling into question the very idea of aggregate growth as a social objective.

Given the set of circumstances the policy was conceived and formulated, there was a single-minded commitment at all levels of government in implementing the NEP strategies, which was itself a basic ingredient for the policy's success. Many policies and targets were set for this purpose, while special entries for poverty and restructuring programmers were made for the allocation of public funds. The NEP also called for a bigger pro-active role of government to rectify what might seem to be 'market failures'. In the implementation of this policy, however, two provisos were made clear: 1) that no segment of society should feel deprived in pursuit of distributional goals; and 2) that the policies were to be implemented within the context of rapid economic growth. The net result of NEP was a major improvement in the transformation of Malaysian society. There was greater equality among different communities than ever before and the incidence of poverty was reduced to a low level. The wide-ranging support by voters from all communities for the ruling coalition party after two decades of NEP implementation might be taken to be an indication of the support by the general population for these policies. However, these policies also brought about the rapid growth of the public sector, not only in general administration but also in commercial and other activities. The issues of the inefficiency and poor performance of public enterprises in most countries are well known since they had to fulfil a multiplicity of potentially conflicting objectives. The problem of the rapid growth of Malaysia's public sector was brought to a head barely one decade later when the deterioration of budgetary deficits and recession necessitated a policy reversal to this trend.

4.21 Boom with Growing Macro Imbalances

After the economic upswing in the late seventies, the Malaysian economy entered a new phase of its development in the 1980s. Its terms of trade 3 peaked towards the middle of 1980 and then took a sharp decline that continued until 1986, with a brief respite in 1984. The decline in the terms of trade was around 20 percent, while the slow- down in the international economic activities as a result of the recession in OECD countries reduced the demand for Malaysian exports. On the supply side, the real growth of important agricultural commodities, especially rubber and timber, had reached a plateau, although this was compensated by increased exploitation of petroleum and natural gas. The extent of private investment was constrained by the deteriorating terms of trade. A reduction in the merchandise account and the current account of the balance of payments resulted from the slowdown in demand and the drop in commodity prices. The government undertook an accelerated public investment and expenditure program in 1980 and 1981 to enhance economic activity and sustain real growth at a high level in response to the weak external sector. While some sectors were in the doldrums, employment in government services expanded rapidly during 1980-82. The counter-cyclical fiscal policy was in anticipation of a rebound in petroleum prices and a quick recovery of OECD growth. Although this sheltered the economy against the international recession, the temporary relief was at a cost of an inflated current account deficit. The strong growth in the domestic economy as a result of expansionary fiscal policy and the tight labour market-imposed pressure on the domestic price level. From an inflation rate of 3.6 percent in 1979, consumer prices shot up and peaked at 9.7 percent in 1981 before falling rapidly to 0.4 percent in 1985. The anti-inflation measures include promotion of domestic savings and tightening conditions on consumption credit. In addition, the government continued with the tight monetary stance adopted in the last few years to contain the inflationary effects from the second wave of oil price hike. Coupled with the expansion of aggregate demand, the tight monetary policy had the effect of pushing up interest rates with negative implications on investment and profitability in the tradable sectors.

(Demery & Demery, 1992) noted that the three main factors responsible for Malaysia's external imbalances over the period 1979-84 were the OECD recession and the associated deterioration in the country's terms of trade, an expansionary fiscal policy which caused a debt-induced interest rate shock, and an appreciation in the nominal and real exchange rate. The income loss arising from the decline in the terms of trade was considerable. As a percentage of GDP, the real income loss amounted to 7 percent in 1981 and 3 percent in 1982. However, the external imbalances could have been avoided if this situation was accompanied by significant cuts in real expenditure rather than the 'expenditure smoothing' behavior on the part of the public and private sectors. (Ghura, 1998) of exchange rates during the period of destabilization, he found that the inflow of external capital to finance the budget deficit causes the appreciation of the nominal and real effective exchange rates. This seriously eroded Malaysia's competitiveness in the world market, dampened its exports of major commodities, and soon brought the country to a deep recession.

4.22 Tax Reform Simulations

In 2.9 literatures, we examined how the structure of Malaysian taxes has changed since 1970. Beyond looking at structural changes, it would be useful to examine the effect of tax changes on various aspects of the macro economy. This chapter applies a micro-macro applied general equilibrium model for Malaysia to examine the counterfactual effects of tax reforms.

One of the most difficult tasks of public economics is identifying the true effects and incidence of a tax or a public project (Atkinson & Stiglitz, 1980). Taxes have wide ranging effects and implications on the macro economy and households, and the one who effectively pays a tax is not necessarily the person upon whom the tax is levied. An increase in the income tax rate reduces disposable income and, correspondingly, consumption. A tax imposed on a certain good has an impact on the producer's earnings, the revenue from providing the factors of production, consumer demand, and the relative demand and cost of labor and capital. A tax is also related to the other variables in the fiscal policy package. Typically, when the government chooses to raise one tax, this is usually accompanied by some other measures such as decreasing another tax, increasing public expenditure or adjusting public debt.

In view of the complexity of tax policy evaluation, the traditional way of using the partial equilibrium approach, which relies on ceteris paribus assumptions, has its limitations. A general equilibrium approach allows one to assess the interactions among different sectors and agents, thereby enabling a more comprehensive evaluation of policy options. The most significant step in applying a general equilibrium approach in tax analysis was fostered by the pioneering work of (Harberger, 1989). One decade later, a fully disaggregated computable general equilibrium (CGE) model' was put into operation by (Pereira & Shoven, 1988) who evaluated the effects of differential taxation of income from capital in the United States.

Alongside CGE models that were used for developed countries to examine efficiency questions in neo-classical welfare analysis, there was another strand of work which focused on structural issues in developing countries. The neo-classical CGE model has limited application in developing countries because the simplifications are considered too confining for applied work (Robinson, 1989). The earliest of CGE models for developing countries were the Adelman-Robinson (1978) model of (Uk Heo & Roehrig, 1980) model of Brazil. These general equilibrium models examined structural issues and the impact of alternative policy choices on poverty and income distribution.

There are over 200 books and journal articles on multispectral applied general equilibrium model listed in the EconLit data base which shows that the literature is large and expanding. CGE modelling techniques have been used in a variety of developing countries such as India, Brazil, Korea, Kenya, Cameroon, Mexico, Yugoslavia, Turkey, Malaysia, Egypt, Indonesia and many others developing countries. The popularity of the CGE approach is hardly surprising given its advantages over other methods such the partial equilibrium analysis, the input-output model and the linear programming models used in earlier analyses. As (Robinson, 1989) observes, all linear input-output and social accounting matrix-based models are limited by their assumptions about fixed coefficients and cost prices. Unlike CGE models, they would not capture price adjustments, substitution possibilities in production and demand, as well as supply and demand interactions.

4.23 Overview of CGE Models

Before the advent of CGE models, multisector economy-wide analysis was performed using the linear input-output model in the 1950s. The input-output model emanated from the pioneering work of W. Leontief who incorporated intermediate goods as part of the accounting system that allowed analysis of both the structure of gross production and interindustry linkages. A decade later, the linear programming (LP) models gained wide acceptance in the 1960s. In the LP models, the analyst is able to introduce choice, constraints and optimization into policy models which could be solved by computer. Dynamic input-output models continue to be used today in development planning. The extended input-output model based on a Social Accounting Matrix (SAM) came into vogue for development planning in the 1970s. The SAM provides an accounting framework for income and expenditure for each actor in the model and furnishes a consistent data framework for more complex models, such as CGE models.

One important feature of CGE models is that both quantities and relative prices are determined endogenously within the models, unlike input-output and planning models used for development planning purposes. CGE models can find numerical solutions for market clearing prices on all product and factor markets and tend to focus on the real side of the economy. According to (Bergman & Lane, 1990), CGE models are generally aimed at clarifying equilibrium resource allocation patterns and the mechanisms by which policy measures affect the economy. They are less well adapted to examining business cycles phenomena or forecasting the exact outcome of specific government interventions.

The CGE model has its roots in the Walrasian general - equilibrium structure. It is converted into an applied analogue where an explicit numerical solution is computed from a model based on the parameters, exogenous variables, and equations which describe the economy. The model simulates the interaction of various economic actors across markets and assumes optimizing behavior on the part of these actors. The framework requires complete specification of the demand and supply sides of all markets which clear in equilibrium. The number of consumers is specified in the model. Each consumer has an initial endowment and a set of preferences, and is assumed to maximize his or her utility. The summation of each consumer's demands constitutes market demands which depend on prices, are non-negative, continuous, and homogeneous of degree zero. In production, technology is associated with either constant or non-increasing returns to scale and producers are assumed to maximize profits.

In his pioneering work on CGE modelling, (Liew, 1984) uses the multisector growth model to examine the sectoral aspects of economic growth in Norway. The model assumes a closed economy, and relative product and factor prices are determined by domestic conditions in the model. Foreign trade, public consumption and net investment, as well as aggregate supply of capital and labour and the rate of technical change are exogenously determined. Hence, Johansen treats household consumption as the only truly endogenous final demand component in the model. The interindustry linkages are in accordance with Leontief input-output model, while value-added deliveries are determined using Cobb-Douglas production functions which allow for input substitution possibilities at the sectoral level. The multisector growth model shares a common feature with other CGE models in that the household demand functions are derived on the assumption of utility maximization under a budget constraint.

4.24 Taxpayer's Characteristics and Level of Knowledge

Several research studies have demonstrated the impact of knowledge on compliance behavior (Ali, Al-Yamani, & Prusova, 2007). (Harris & Lipian, 1989) distinguished between two types of tax knowledge: general knowledge acquired through common or formal education and knowledge targeted especially at possibilities to dodge taxes. In the first instance, the taxpayers' degree of education plays a significant role in their general comprehension of taxation, particularly with regard to the rules and regulations governing taxation (Eriksen & Fallan, 1996). Previous research has shown a strong correlation between general tax knowledge and taxpayers' capacity to comprehend tax laws and regulations and their capacity to adhere to them (Singh, 2003).

Knowledge constitutes one of the factors in compliance, and it has to do with the ability and willingness of the taxpayers to comply with the tax rules. The broad knowledge of tax laws and information relating to the possibility of tax evasion are aspects of knowledge that are related to compliance. Previous scholars have questioned, for example, whether increased information may encourage tax evasion.

Enhancing tax knowledge can change people's attitudes regarding paying taxes (Eriksen & Fallan, 1996). A taxpayer's propensity to avoid paying taxes will decrease if they have a good attitude toward paying taxes. Knowledge has been acknowledged as a critical component to enhancing Malaysian taxpayers' grasp of the new system, which will assist execute it smoothly as we go from OAS to SAS.

4.25 Structure of the Tax System

These are concerned with economic aspects of tax compliance, such as the costs and advantages of doing certain activities, as well as other aspects of the way the tax system is set up (Loo, 2006). Taxpayers are assumed by (Hasseldine, 1993), (Song & Yarbrough, 1978), and (Torgler, 2007) to be rational economic evaders who would presumably weigh the advantages and disadvantages of evasion. By purposefully underreporting their income, individuals might try to reduce their tax liability and, if the tax authorities did not catch them, benefit from tax savings. On the other hand, if they were caught, they would be prepared to pay extra, possibly even a fine (Song & Yarbrough, 1978) and (Torgler, 2007). The economic elements that affect tax compliance, such as tax rates, tax audits, and public perceptions of government expenditure, are further discussed in the subsections that follow.

4.26 Tax Rates

Although the precise effect is still uncertain and contested, (Devos, 2008) asserted that "*reducing tax rates is not the only policy that has the potential to discourage tax evasion but the tax rate is an important factor in determining tax compliance behavior*." Since tax rates are a tool that may be used to alter policy goals in particular, Clotfelter further contends that there is a strong correlation between tax rates and evasion. While lowering tax rates may not always result in higher tax compliance (Trivedi, Shehata, & Mestelman, 2004), raising marginal tax rates is likely to encourage people to cheat taxes more (Whitte & Woodbury, 1985). Tax academics are interested in this ambiguous and contradictory topic because they want to develop more conclusive and tangible proof of how tax rates affect tax evasion. One example of this is lowering tax rates to boost compliance.

In an earlier attempt by (Allingham & Sandmo, 1972) to use statistical modeling to determine the relationship between actual income, tax rates, penalty, and investigation, they came to the conclusion that taxpayers might choose to either completely declare income or report less income, independent of the tax rates. Tax rates seemed to have little bearing on whether or not there was tax evasion.

However, according to other economic models of rational compliance decisions, tax rates have a mixed effect on tax compliance or improve compliance behavior (Kirchiler, 2007). Contrary to (Allingham & Sandmo, 1972), a number of research revealed that raising tax rates either produced mixed results or encouraged noncompliant conduct (Park & Yun, 2003). While the majority of experimental investigations have demonstrated that raising tax rates causes tax evasion (Park & Yun, 2003) asserted that tax rates had no impact on tax compliance.

(Kirchiler, 2007) and (McKerchar & Evans, 2009) argued that the level of trust between taxpayers and the government has a significant role in determining the influence of tax rates on compliance because the impact of tax rates was disputed (positive, negative, or no impact on evasion). When trust is low, a high tax rate could be seen as treating taxpayers unfairly, but when trust is strong, the same tax rate might be seen as making a positive contribution to the community (Kirchiler, 2007).

In conclusion, the research indicates that tax rates have a mixed effect on tax compliance, meaning that cutting tax rates does not always boost compliance (Kirchiler, 2007) and raising tax rates will not always result in a drop in compliance behavior (Allingham & Sandmo, 1972). The impact of tax audits on tax compliance is discussed in the subsection that follows.

4.27 Tax Audits

According to (Jackson & Milliron, 1986) audits reduce tax evasion. These results imply that tax audits can have a significant impact on self-assessment systems, with their primary goal being to boost voluntary compliance. Taxpayers may be prompted to be more careful when completing their tax forms, record all income, and claim the appropriate deductions in order to determine their tax liability by audit rates86 and the audits' rigor. On the other hand, people who have never had their tax returns examined could feel pressured to understate their true income and make bogus deduction claims. (Butler, 1993) also discovered that tax audits have the power to turn negative compliance behavior positive. These discoveries add to the work of (Whitte & Woodbury, 1985) and (Beron, Tauchen, & Witte, 1988). (Whitte & Woodbury, 1985) discovered that tax audits play a big part in tax compliance in their research of small business owners. They left room for future research in this area because they did not experimentally test certain taxpayers. (Butler, 1993) and (Wilford & Wilford, 1978) discovered results that were notable.

(Evans, Carlon, & Massey, 2005) examined the tax compliance of small and medium-sized enterprises (SME) in Australia from a different angle. Their goal was to investigate the connection between SMEs' record-keeping methods and their possible vulnerability to issues with tax compliance. The study's main hypothesis was that SMEs' poor tax compliance would motivate the tax authority to conduct more audits and investigations. This study, which used postal questionnaires, discovered that small business owners' audit histories, including frequency, audit results, and audit type, have a significant indirect impact on tax compliance (in terms of record keeping). The outcome also showed that, rather than being a component of their management of their businesses, the small business owners' main goal when keeping records is tax compliance. As a result, as audit investigations grow, many SMEs will exert greater effort to maintain accurate records.

4.28 Role (Efficiency) of the Tax Authority/Government

Since researchers from various nations have been unable to come to consensus on this issue, which appears to vary from country to country, there is debate in the literature regarding how the efficient operation of the tax system by the tax authorities influences taxpayers' compliance behavior. As a result, various nations have developed and offered various solutions to the issue of the connection between taxpayer compliance and the operation of their tax systems.

It is obvious that the tax authority plays a crucial role in reducing the tax gap and improving voluntary compliance. This was demonstrated by (Hasseldine, 1993), who identified the government and the tax authority as the principal parties who must consistently operate the tax system effectively in order to reduce tax evasion. By creating the actual tax structures as well as the particular procedures for enforcement and collection, the government assumes a crucial role (Hasseldine, 1993). According to (Roth, Scholtz, & Witte, 1989), a government must first have an affordable tax system that is practical; they must deter tax evasion and not encourage dishonesty; they must avoid the tendency to dry up the source of the tax; they should also avoid provoking conflict and raising political difficulties and they should also have a positive relationship with the international tax regulations.

4.29 Full Digital Transformation

The National Revenue Authority (NRA) has started a number of initiatives in an effort to make President Bio's promise to increase domestic revenue to 20% of GDP by 2023 a reality. Within the organization, practical and tangible measures have been implemented to give words life and realize the president's vision.

The digital revolution, which has swept the globe in the previous two decades and left nations penniless but wealthy, is swiftly making its way along Africa's west coast. The NRA has started taking concrete steps to improve its operational structures and processes. The NRA is the entity tasked with mobilizing income, streamlining the process, and mainstreaming it.

Three important changes that will strengthen income generation and boost public confidence have recently started to be made to the NRA. As a result, the following reforms: The Integrated Tax Administration System (ITAS), The Electronic Cash Register (ECR), and The ASYCUDA World.

These tax reforms fall inside the short- and long-term purview of the NRA, and the NRA firmly believes that, once passed and put into effect, they will increase revenue.

4.30 The ASYCUDA World

Businessmen can begin their transaction paperwork with the NRA using the web-based Automated System for Customs Data (ASYCUDA World), which was introduced a few months ago, from any location and at any time. It makes it easier for specific importers who purchase goods from various parts of the world to verify the customs duties on such purchases and begin communication with the NRA as long as there is connectivity where they are. (Brooks, 2001) claims that this is strongly related since the advancement of technology is structurally altering information processes in both the public and private sectors. Tax administrations are no exception, and as a result, they are going digital. Now more than ever, it is their responsibility to effectively and efficiently handle, understand, and use information.

From a different angle, The Organization for Economic Cooperation and Development (OECD , OECD Digital Economy Outlook 2020, 2020) pointed out that the Forum on Tax Administration (FTA), which was established in 2002, brought together commissioners and tax administration officials from OECD and non-OECD nations, including all G20 members. In this regard, the goal is to establish pertinent worldwide trends, shape them, and develop new ones in order to improve tax administration throughout the world. It achieves so by giving the commissioner and their team a special global platform where they may exchange knowledge and experience on problems relating to tax administration, Utilizing the combined power of tax administration on a worldwide scale, particularly by creating cooperative action plans on important tax administration challenges, creating and promoting world-class products, and promoting effective, efficient, and fair tax administration standards.

4.31 Electronic Cash Register

Electronic Cash Register, or ECR, is a new system that will be introduced soon. A tax payer's cash payments to businesses, including GST payments, are recorded in the ECR, an electronic cash ledger. Its goal is to give NRA a platform to track small business houses' financial activity, estimate their turnover, and track their tax obligations. It includes both hardware and software elements that are integrally related to the NRA.

4.31.1 Objective of the ECR

The NRA uses this technological system (software & devices) to monitor business transactions and to enhance the quality of sales tax or the GST. It is set up for all Goods and Services Tax (GST) Registered Businesses.

A GST automated form is the ECR. A business must register as a GST business if its annual revenue is Le 350,000,000 (Three Hundred and Fifty Million Leones) or more. So, among other businesses, some of these could be restaurants, bars, boutiques, supermarkets, nightclubs, general retail stores, and service providers. 15% of each is the GST standard rate. Nevertheless, Section 14 of the 2009 Goods and Services Act specifies the GST mandate.

4.32.2 ECR Law

The ECR Law was established by Section 34 of the FINANCE ACT 2020, which was passed in 2020. An end-to-end computer system that automates operations is referred to as an integrated tax administration system (ITAS) in modern parlance. The ITAS is an automated, web-based integrated tax system that streamlines data collecting by automating manual tasks. The ITAS will combine all of the legacy stand-alone systems into one completely automated system to handle domestic tax administration. Thus, it offers real-time account monitoring in addition to online registration, filing, payment, and status for taxpayers.

4.33 Tax Reforms

Objective: (Highlighting Tax Reforms), the following findings are in relation to the objective of examining the factors that indicate whether there are tax reforms at the National revenue Authority.

4.33.1 Influence Transparency and Corruption on Tax Reforms

The efficiency of tax collection at NRA was affected by corruption and transparency. The effectiveness of tax collection, according to the majority of the respondents, was impacted by corruption. The majority of respondents claimed that their professionalism was not completely appreciated, and this was bound to have an impact on tax collection. They also claimed that most respondents engaged in dishonest or unethical behavior. The majority of respondents, however, indicated that internal controls, organizational structure, record-keeping, job division and segregation, authorizations and approvals, and staff competency, as established and/or implemented, were sufficient to guide effective administration of the tax function.

5. Discussions

Despite the variety of reforms adopted in developing countries, some coherent themes emerge about the current status of tax reforms and point towards the future directions in the coming years. A comprehensive discussion on the experiences of developing countries at tax reform transpired at the Conference of Tax Policy in Developing Countries organized by the World Bank. Some common themes and important lessons that emerged may be summarized as follows:

- Using the VAT, the VAT is the preferred instrument for most developing countries because of its strengths in revenue enhancement, tax neutrality, vertical equity and improving the collection of other taxes. From the experiences of countries with VAT, the following points should be noted: (a) pre-retail VATs are not worth adopting because of distortion and administrative complexities; (b) all services, except health care, education, social welfare, banking, and insurance, should be included in the base; (c) rate differentiation should be minimized, although the poor should be protected; (d) VAT is an ideal tax for large, integrated economies with sophisticated production and distribution channels and is less suitable for small, island-type economies with narrow manufacturing base and large cross-border trade.
- Broadening the tax base. To increase revenue and strengthen the tax system's simplicity, neutrality, and equity, the base of current taxes should be expanded. The failure to successfully implement tax reforms can be attributed to a number of factors, including selective and slack enforcement, inadequate tax administration, institutional and political challenges in taxing agricultural revenues, and a general dissatisfaction with income taxes as a source of revenue in a setting where evasion is common.
- Limiting special tax preference. The provision of special tax preferences often drains the national treasury. The potential gains of these preferences should be weighed against the potential losses in efficiency and revenue. While there is a role for investment incentives that can offset the corporate tax distortion, attract foreign investment, create employment, promote risk sharing, and correct information asymmetries, the granting of some of these incentives often depends on administrative discretion that discourages potential investors, especially non-residents.
- Financial asset taxation. Contrary to popular assumption, (Chamley, 1985) discovered that, when explicit and implicit taxes are taken into account, the banking sector in many developing nations is severely taxed. Seignior age, reserve requirements, lending targets at non-market rates, and interest caps paired with inflation are all examples of implicit taxes. (Chamley, 1985) contends that the

majority of the incidence of the effective taxation of financial institutions rests on deposits using a partial equilibrium framework.

- Distributional impact of taxation. (Shah & Toye, 1978) argue that developing countries have very different non-tax policies and regulatory environments from industrial countries. When these features are taken into account, they can yield significantly different tax incidence estimates calculated on the assumptions about tax shifting that are used in studies of developed countries.
- Taxing multinationals. The design of tax reform must reflect initial conditions at home and abroad since developing countries are not only constrained by their own institutional settings but also by the tax structure in capital- exporting countries. The taxation of multinationals by a developing country should be examined in terms of the tax regime of the home country, tax havens and conduit countries, and transfer pricing practices. Home country taxes influence the user cost of capital, while foreign firms in a typical host country face substantial variations in the user cost of capital. The effective marginal tax rate, which can be different from the idea of an average tax rate, determines the incentive to invest. Foreign direct investment (FDI) in Mexico is sensitive to tax regimes in Mexico and the United States, to the credit position of multinationals, to country credit ratings, and to the regulatory environment, according to (Shah & Toye, 1978) analysis of Mexico.
- Improving credibility. The success of any tax reform depends on the credibility of the tax regime. Establishing business confidence in the credibility of the tax regime requires greater attention to preparation, analysis of reforms, advance consultation, and provision of a reasonable period of adjustment before implementation.
- Co-coordinating tax reform. A coordinated reform ensures consistency of individual tax changes with the overall objectives, including revenue enhancement, protection (through custom duties) and economic performance. A reform on reducing tariffs should be accompanied by reform of other indirect taxes to offset potential losses and public revenue.
- Considering the political economy. Tax reform proposals must carefully consider the institutional features and tax administration of each country. When it is difficult to get politicians to commit to comprehensive reforms with medium to long term benefits, having periodic, incremental reforms may be a pragmatic strategy. Where tax evasion is pervasive and the earlier tax preferences are restored after the initial tax reform as a result of political pressure, broadening bases and lowering rates can lead to a tax 'deform'.
- Quantitative tools for tax policy analysis. There is a scope for a quantitative evaluation of the impact of changes in tax structures for economic and political economic analysis. As illustration, (Dahl & Mitra, 1991) use the applied general equilibrium analysis to address questions in tax policy for Bangladesh, India, and China. They argue that the costliest element of modelling is establishing a

consistent data set and the cost should be weighed against the gains from modeling in producing consistent recommendations for sound policy formulation.

- Optimal Taxation. There is limited scope of adopting the optimal tax theory for developing countries because the optimal commodity tax rule assumes global knowledge of preferences both in the present period and intertemporal, the absence of other tax instruments, and the representative consumer. Once these assumptions are relaxed, the usefulness of the Ramsey Rule is less clear cut. The optimal tax theory can serve as a guide to designing (optimal tax systems' only if it considers the technology of tax collection, such as the feasibility of tax instruments and the cost of tax administration and compliance (Slemrod, 1990).
- Taxation of agricultural land. (Sandmo, 1987) examines the possibility of replacing distorting taxes on agriculture with land tax. He concludes that a land tax is not necessarily superior alternative to export taxes for raising federal government revenue, while progressive tax rates on land holdings are nearly impossible to administer. A land tax may be suitable for local government financing though.

6. Conclusion

The implementation of the impact of tax reform on revenue mobilization in Sierra Leone cannot be overemphasized. The revenue of government has been greatly affected by the current tax system being used gives room for loopholes, the corrupt tax officials, the lack of adequate data and many more have worsened the situation. Additionally, even lowering the tax rate would not be the best answer to the issue because some people would still try to evade or avoid paying their taxes, regardless of the tax rates and the effectiveness of the reform. As a result, the tax structure in Sierra Leone needs to be entirely revised. The fact that there are a sizable number of tax defaulters at NRA should worry policymakers and tax authorities.

By addressing tax law gaps and carefully designing all new tax laws, tax revisions can be substantially prevented. It is necessary to better codify and harmonize all tax legislation. Additionally, the apparatus used to enforce taxes needs to be strengthened. Additionally, the severity of the punishment should be increased, and the applicable legal requirements should be made apparent. It is necessary to invest in ongoing civic education and take action to persuade tax payers that the money they spend in taxes is wisely spent. Wake up to your responsibilities, State Board of Internal Revenue, and Revenue collection officers at the various Departments at NRA. To ensure that the system of information storage, processing, and retrieval is effective, the database for tax administration at all levels should be quickly computerized. Where a person wishes to conduct business with government organizations, they need also submit their tax clearance. All of this would undoubtedly guarantee a rise in revenue mobilization and make the tax revisions adequate.

Conflict of Interest Statement
The authors declare no conflicts of interest.

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