

The Nexus Between Sri Lankan Tax Revenue and Economic growth as proxied by Gross Domestic Product

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Abstract— The contribution of taxation to any economy globally cannot be overemphasized. Apart from the revenue function it performs for the Sri Lankan government. It has been observed that a substantial part of revenue generated in Sri Lanka is from taxes. The main objectives of this study is to explore the relationship between taxation income and economic growth. Time series data were applied in carrying out this research work. Multiple liner Regression analysis was used to analyze the data by employing use of Vector Error Correction Model. The findings reveal that Income Tax, Nation Building Tax, and Value Added Tax have a positive impact on Sri Lanka's economic growth while Import Duties impacted negatively but overall, a signified relationship between tax revenue and Sri Lankan economic growth exists.

Index Terms— Gross Domestic Product, Import Duties, Income Tax, Nation Building Tax, Tax Revenue, VAT.

I. INTRODUCTION

The whole essence of tax revenue is to generate revenue to advance the welfare of the people of a nation with focus on promoting economic growth and development of a country through the provision of basic amenities for improved public services as proper administrative system, and structures. Tax revenue plays a crucial role in promoting economic activity growth and development. Through tax revenue, government ensures that resources are channeled towards important projects in the society, while giving succor to the weak. The role of tax revenue in promoting economic activity and growth may not be felt if poorly administered. This calls for a need for proper examination of the relationship between revenue generated from taxes and the economy, to enable proper policy formulation and strategy towards its efficiency.

A critical challenge before tax administration in the 21st century Sri Lanka is to advance the frontiers of professionalism, accountability and awareness of the general public on the imperatives and benefits of tax revenue in our personal and business lives which include: promoting economic activity; facilitating savings and investment; and generating strategic competitive advantage. If tax administration does not for any reason meet the above challenges, then there is a desperate need for reform in the

area of the tax regime, and in the administration of taxes.

A country's tax system is a major determinant of other macroeconomic indexes, specially, for both developed and developing economies; there exists a relationship between tax structure and the level of economic growth and development. Indeed, it has been argued that the level of economic growth has a very strong impact on a country's base (Kiabel, 2009, and Vincent, 2001), and tax policy objectives vary with the stages of development. Similarly, the economic criteria by which a tax structure is to be judged and the relative importance of each tax source vary over time (Vincent,2001).

Tax revenue is a powerful tool of economic reform and a major player in every economy of the world. It is never static but dynamic and should reflect current realities prevailing in the economy. The tax system is an opportunity for government to collect additional revenue besides other sources of income, which is needed in discharging its pressing obligations. A good system of tax also offers itself as one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating enabling and conducive environment to the promotion of economic growth and development (Ogbonna,2011).

Further, the rudimentary nature of the economy precludes retail from of taxes. At this stages also, taxes are difficult to collect because of the lack of skills and facilities for tax administration (Kiabel, 2009). Given this, a complicated tax structure is not feasible and the amount of revenue from personal income tax will depend on taxpayer's compliance and the efficiency of the tax collector. An important source of government revenue during the early stage of economic development is the foreign trade sector because exports and imports are readily identifiable and they pass through few ports. Kiabel (2009) said that revenue from export and custom duties is not stable because of periodic fluctuations in the prices of primary products. This tends to complicate plan implementation in many developing countries.

The main economic objective of developing nations is to increase the rate of economic growth, in order to bring them to the levels of developed countries. Achieve this goal depend on the developing nation's ability to provide additional basic government services, especially in public health, education and transport, and on achieving higher rates of capital formation in production facilities, whether undertaken on government and private sectors. Further the key to economic growth is, of course the transfer and better utilization of resources, not merely the shift in the location of money. Taxation is a primary instrument for the development of the nation through Gross Domestic Product. A nation's fiscal policy and taxation system is a major determinant of Gross Domestic Product and sustainable economic growth particularly in such areas as government revenue, public debt Fiscal deficit inflection as well as resource allocation, income distribution and economic stability. Presently, Sri Lanka's fiscal and taxation system is at a critical juncture. The last three decades Sri Lankan economy moving in the new economic era of growth. Development challenges are many for the international and national context. The background of the study attempts to identify the current trends and perspectives of Tax income and Economic growth.

The objective of tax system in to finance public expenditure. According to Omojemite and Godwin (2012) tax system also play avital role in achiving the other targets like equity, social and economic improvement in the economy. Further they said a well-organized, efficient and effective tax system in a necessary requirement for economic growth. Taxes determine the level and speed of economic growth in countries of the globe. Each country with organized stable taxation system grow rapidly, over the period compared, with other countries, not have such good individualities in Sri Lanka. Tax system plays a very important role to meet developmental and non-developmental expenditures and ultimately to augment economic growth. Taxation effect production and growth. That government revenue at sometimes in motivated by the changes in tax base, tax policies and tax rates (Oduola,2006). Therefore, tax impacts, household's ability to work, will to work, decisions to save consumption, labour supply and investment. Tax System not only important to Sri Lanka but also it very important to all countries in world around interfere the allocation of resources.

II. LITERATURE REVIEW

A. Therotical Framework

Expediency theory

This theory asserts that every tax proposal must pass the test of practicality. It must be the only consideration weighting with the authorities in choosing a tax proposal. Economic and social objectives of the state and the effects of

a tax system should be treated irrelevant (Bhasrtia,2009). Anyafo (1996) and Bhartia (2009) explained that the expediency theory is based on a link between tax liability and state activities. It assumes that the state should charge the members of the society for the services provided by it. This reasoning justifies imposition of taxes for financing states activities by inferences, provides a basis, for apportioning the tax burned between members of society. This proposition has a truth in it, since it is useless to have a tax which cannot be levied and collected efficiently.

There are pressures from economic, social and political groups. Every group tries to protect and promote its own interests and authorities are often forced to reshape tax structure to accommodate these pressures. In addition, the administrative set up may not be efficient to collect the tax at a reasonable cost of collection. Tax revenue provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequalities, regional disparities, unemployment, and cyclical fluctuations and so on.

Adolph Wagner advocated that social and political objectives should be the deciding factors in choosing taxes. Wagner did not believe in individualist approach to a problem. He wanted that each economic problem be looked at in its social and political context and an appropriate solution found thereof. Accordingly, a tax system should not be designed to serve individual members of the society, but should be used to cure the ills of society as a whole. This theory related to a normal development process and represents a benchmark against which country specific empirical evidence may be compared.

This study therefore focused on the expediency theory which enables us to assess the extent to which the Sri Lankan tax system conforms to this scenario where the link between tax liability and economic activities are linked. If applicable, such a characterization will enhance accurate tax revenue projection and targeting of specific tax revenue sources given an ascertained profile of economic development. It will also assist in estimating a sustainable revenue profile there by facilitating effective management of a country's fiscal policy, among others. This is because the expediency theory focuses on the fact that taxes are collected to achieve economic objectives which enhances the growth and development of a society in all its spheres.

B. Empirical study

A country's tax system is a major determinant of other macroeconomic indexes. Specifically, for both developed and developing economies, there exists a relationship between tax structure and the level of economic growth and development. Kiabel (2009) and Vincent (2001) said that indeed, it has been argued that the level of economic

development has a very strong impact on a country's base and tax policy objectives vary with the stages of development.

According to Olopade and Olopade (2010) Growth means an increase in economic activities. Kuznets (Cited in Likita, 1999) defined a country's economic growth as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growth capacity is based on advancing technology and the institutional and ideological adjustment that it demands.

Economic growth represents the expansion of a country's potential GDP or output. Rostow- Musgrave model (1999) carried out a research on growth of public expenditure where they focused mainly on the utilization of taxes as the major revenue source, concluded that, at the early stage of economic development, the rate of growth of public expenditure will be very high because government provides the basic infrastructural facilities (social overheads) and most of these projects are capital intensive, therefore, the spending of the government will increase steadily. The investment in education, health, roads, electricity, water supply are necessities that can launch the economy from the practitioner stage to the take off stage of economic development, making government to spend an increasing amount with time in order to develop an egalitarian society.

Development in human society is a one-sided process; this in turn remains the goals of every society at all time. The term 'development' until recently meant growth measured by GDP or rise in per capita income. Yet development is not growth. Perhaps it could be growth coupled with social justice, (Kayode,1993). Development implies changes that lead to improvement or progress; it is believed that an economy that raises its per capita level of real income over time without transforming its social and economic structure is unlikely to be perceived as developing.

The main purpose of tax is raise revenue to meet government expenditure and to redistribute wealth and manage the economy (Ola, 2001; Jhingan, 2004; Bhartia, 2009). Jarkir (2011) outlined that for economic growth of a country, tax revenue can be used as an important tool for the economic development.

In Sri Lanka context Amirthalingam (2010) found that political favoritism, political influence, and a lack of a clear cut political rationale on taxation have also adversely affected the tax revenue potential. Further Amirthalingam (2011 and 2012) identified that Sri Lanka government also needs to spend more on social and economics services particularly after three decades of armed conflict which retarded the socio-economic development of the country to raise tax revenue rather than depended overwhelmingly on debt.

Amirthalingam suggested (2013) that with a view to reducing its overwhelming dependency on public debt creation Sri Lankan government should take measures to increase the share of tax revenue in GDP.

The gap in terms of the period covered is also contributory factor to the disparity in the outcomes of relationship between tax revenue and an economy. This calls for an urgent need in the improvement of the tax system to enhance the evaluation of the performance and facilitate adequate macroeconomic planning and implementation.

III. PROBLEM STATEMENT

There is a general lack of consensus among scholars on the contribution of tax revenue to the economic growth of the nation. A country's government devises in solving the economic problems of the country and to enhance government expenditure which is expected to be beneficial to the citizens of such country through provision of social and economic infrastructures in Sri Lanka, this has not been the case because despite of the tax revenue and expenditure reported year in year out by government, but creation of money and debt adverse repercussions on the country economy. Tax revenue is important for the reducing the budget deficit of the country Sri Lanka face budget deficit continuously also the government of Sri Lanka has done and doing several reforms in tax policies to reduce the budget deficit through increasing tax revenue however unable to reduce tax deficit and increase GDP of Sri Lanka.

IV. RESEARCH QUESTION

Does tax revenue have any significant impact on the economy of Sri Lanka?

V. OBJECTIVES OF THE STUDY

Broadly the objective of this study is to identify the impact of tax revenue on the Sri Lankan economic growth from 2010 to 2016.

Other specific objectives are

To analysis the impact of income tax on the growth of the economy of Sri Lanka

To identify the impact of National Building Tax on the economy Sri Lanka

To investigate the impact of Import Duties on the growth of the economy of Sri Lanka

To analysis the impact of value Added Tax on the growth of the economy Sri Lanka.

VI. SIGNIFICANCE OF THE STUDY

Tax revenue is one of the source of government revenue. This tax revenue can be used to achieve economic growth maintain equilibrium in the economy by combating elements of depression inflation or deflation, achieve equity in income

and wealth distribution and address issues of poverty and promote socio economic development, hence the need to find out the extent tax revenue impact of Sri Lanka's economic growth. This study will help to achieve the primary objective of tax system to raise revenue for the government for its public expenditure.

The research findings would be of importance to policy makers at national level as they design policies aimed at enhancing growth and development through a better tax revenue system. Policy makers, especially the Inland Revenue Department of Sri Lanka service will use the outcome of the study to gauge its performance and determine the level of input it would to make to impact positively to the Sri Lankan economy.

VII. HYPOTHESES OF THE STUDY

Based on the objectives of the study, the following hypothesis have been formulated.

H0 :- Taxation Revenue has no significant impact on the growth of the Sri Lankan economy.

H1 :- Taxation Revenue has significant impact on the growth of the Sri Lankan economy.

H0a :-Income Tax has no significant impact on Sri Lankan economic growth.

H1a :-Income Tax has significant impact on Sri Lankan economic growth.

H0b :- Nation Building Tax has no significant impact on Sri Lankan economic growth.

H1b :- Nation Building Tax has significant impact on Sri Lankan economic growth.

H0c :- Import Duties has no significant impact of Sri Lankan economic growth.

H1c :- Import Duties has significant impact of Sri Lankan economic growth.

H0d :- Value Added Tax has no significant impact on Sri Lankan economic growth.

H1d :- Value Added Tax has significant impact on Sri Lankan economic growth.

VIII. METHODOLOGY

The data for this study obtained mainly from secondary sources. The data was made up of Gross Domestic Product (GDP) of Sri Lanka from 2007 to 2016 while the data for tax revenue covers the same period and captures revenues from Income tax, Nation Building Tax, Import Duties and Value Added Tax. This study used E.views statistical packager to analyze the data. The order of integration examined by using of Augmented Dickey Fuller (ADF) tests and other

robustness test carried out like the VEC heteroskedasticity test.

A. Model specification

In order to examine the impact of tax revenue on Sri Lanka economic growth, a multiple liner model used. The model captured the contribution of income tax, National Building Tax, Import Duties and Value Added Tax to Gross Domestic Product.

$$GDP = \beta_0 + \beta_1 ICT + \beta_2 NBT + \beta_3 IMD + \beta_4 VAT + \Sigma$$

Where

GDP- Gross Domestic Product

ICT-Income Tax

IMD-Import Duties

VAT- Value Added tax

β_0 - Constant

$\beta_1 - \beta_4$ - Coefficient of the regression equation

Σ - Proble error

B. Regression and Specification Test Results

After running the Augmented Dickey fuller test to determine the stationarity of the data presented above, a new model is hereby stated following the stationarity results. This is given as follows:

$$DGDP = \beta_0 + \beta_1 D(ICT) + \beta_2 D(NBT) + \beta_3 D(IMD) + \beta_4 D(VAT) + ECM$$

Where:

D (GDP) = Gross Domestic Product is Captured at 1st difference

D (ICT) = Income Tax at 1st difference Total tax is at level

D (NBT) = Nation Building Tax at 1st difference

D (IMD) = Import Duties at 1st difference

D (VAT) = Value Added Tax at 1st difference

ECM = Residual result after running the residual test

IX. DATA PRESETAION AND ANALYSIS

A. Stationarity Test Results

A stationarity test on the variables test of the variables is performed. Economic theory requires that variables be stationary before application of standard econometric techniques. This is to avoid misleading results. In performing the stationarity test a maximum lag of 1 is used, and included the intercept.

TABLE I: RESULTS OF STATIONARITY (UNIT ROOT) TEST

Variables	ADF stats	Critical value	Order of Integration
GDP	-7.719135 (0.0000)	1% = -3.699871 5% = -2.976263 10% = -2.627420	First difference
ICT	-5.349843	1% = -3.69987 5% = -2.976263 10% = -2.6277420	First difference

NBT	-4.758119 (0.0007)	1%=-3.689194 5%=-2.971853 10%=-2.625121	First difference
IDM	-5.086221 (0.0003)	1%=-3.689194 5%=-2.971853 10%=-2.625121	First difference
VAT	-6.203041 (0.0000)	1%=-3.711457 5%=-2.981038 10%=-2.629906	First difference

As stated in the methodology the tools of unit root tests (ADF) is tested for all the variables by the null hypothesis as "Presence of unit root" against the alternative hypothesis series is stationary". If the absolute computed value exceeds the absolute critical value. Therefore, reject the null hypothesis and concluded that series is stationary and vice versa. It is clear from the Table 1. that null hypothesis of no unit roots for all the time series are rejected at their first differences since the ADF test statistic value is less than the critical values at one percent levels of significances. Thus, these variables have unit root in their level form but at first difference the variables became stationary.

TABLE II: Unrestricted Cointegration Rank Test (Trace)

Hypothesize	Eigenvalue	Trace Statistic	0.05	Prob**
d			Critical	
No. of			value	
CE(s)				
None *	0.748834	37.30430	33.87687	0.0187
At most 1*	0.652351	28.52715	27.58434	0.0378
At most 2	0.47472	17.38284	21.13162	0.1547
At most 3	0.151427	4.433372	14.26460	0.8110
At most 4	0.088271	2.495146	3.841466	0.1142

Trace test indicates 2 cointegrating eqn(s) at the 0.05 Level
*denotes rejection of the hypothesis at the 0.05 Level
**Mackinnon- Haug- Michelis (1999) p-value

TABLE III: Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesize	Eigenvalue	Trace Statistic	0.05	Prob**
d			Critical	
No. of			value	
CE(s)				
None *	0.748834	37.30430	33.87687	0.0187
At most 1*	0.652351	28.52715	27.58434	0.0378
At most 2	0.47472	17.38284	21.13162	0.1547
At most 3	0.151427	4.433372	14.26460	0.8110
At most 4	0.088271	2.495146	3.841466	0.1142

Max- eigenvalue test indicates

Both the trace statistics and max-eigen statistics rejected the null hypothesis of no cointegration at the 0.05 level (90.14281 > 69.81889 and 37.30430 > 33.87687). But the

null hypothesis of three cointegration among the variables is not rejected at the 0.05 level (24.31136 < 29.79707 and 17.38284 < 21.13162), (6.928519 < 15.49471 and 4.433372 < 14.26460) (2.495146 < 3.841466 and 2.495146 < 3.841466) by both the trace statistics and max-eigen statistics respectively. Hence, the johansen methodology concludes that there exist one cointegrating relationship among Gross Domestic Product (GDP), Income Tax (ICT), National Building Tax (NBT) Import Duties (IMD) and Value Added Tax (VAT). Therefore, estimation VECM model is required for this purpose.

The long run relationship between GDP, ICT, NBT, IMD and VAT for one cointegrating vector for Sri Lanka in the period 2010 to 2016 is shown in the Table 3. For better understanding of the relationship between the GDP, ICT, NBT, IMD and VAT, the study estimated the VEC model for the period of 2010 to 2016 in special consideration to each of the independent variables and their impact on the dependent variable separately. The justification for this to examine whether each of the independent variable will have more influence on GDP than considering the period data and impact on GDP. When the variables are in logarithms and one cointegrating vector is estimated.

TABLE IV: Vector Error Correction Results

Variables	STD ERROR	T-STATISTICS	P-VALUE
ICT	4.07486	0.56772	2.313364*
NBT	11.7893	1.39071	16.39553*
IMD	9.17704	-1.25606	-11.52689*
VAT	0.37487	0.34804	0.130470*

TABLE V: Cumulative Result

Model	R-Square	Adjusted R-Square	Std error	F Statistics
I	0.728935	0.530153	4.257323	3.667020

During the long run period 2010 to 2016, the T statistic for Income Tax is 0.56772, with standard error of 4.07486, while the P value is 2.313361, this implies every one percent increase in income tax is likely to increase Gross Domestic Product by 2.313364 percent and this estimate is significant at 1% level. Thus it shows there is positive and significant relationship between Income tax and Gross Domestic Product. As a results, reject null hypothesis which stated that Income Tax has no significant impact on gross domestic product and accepted alternative hypothesis of Income Tax has significant impact on gross domestic product.

National Building Tax within a long run period of to shows a positive significant relationship with gross domestic product, as the t statistic value is 1.39071 with a standard error of 11.7893, while the p value is 16.39553, this implies that for every one percent increase in National Building Tax the gross domestic product will increase by 16.39553 percent. This results signifies that NBT in Sri Lanka are

contributing positively to the growth of the economy. As a result of this reject the hypothesis of Nation Building tax has no significant impact on gross domestic product and accepted alternative hypothesis of Nation Building Tax has significant impact on gross domestic product.

The Import Duties shows a t statistic of -1.25606 with standard error of 9.17704 and p value of -11.52689, this implies that Import Duties has a negative significant relationship with gross domestic product, that is, every one percent increases in Import Duties, gross domestic product will decrease by 11.52689 percent. Therefore, hypothesis of Import Duties has no impact on gross domestic product is accepted. That mean Import Duties have no significant impact on gross domestic product of Sri Lanka. Therefore, the alternative hypothesis of the Import Duties has significant impact on gross domestic product is rejected.

The Value Added Tax within a long run period of 2010 to 2016 shows a t statistic value of 0.34804 with standard error of 0.37487 and P value of 0.130470. This implies that for every one percent increase in Value Added Tax, gross domestic product will increase by 0.130470 percent. this signifies that there is a positive significant relationship between Value Added Tax and Gross Domestic Product. This will make to reject null hypothesis of Value Added Tax has no significant impact of gross domestic product of Sri Lanka and accepted alternative hypothesis of Value Added Tax has significant impact on gross domestic product.

Finally, the overall results of tax revenue is shown in Table 05. It shows that tax revenue has made a significant impact on the economic growth of Sri Lanka in the period under study. The coefficient of determination reveals a value of 0.729. This implies that tax revenue has explained up to 73% of the variation in economic growth of Sri Lanka and the remaining 27% is covered by other factor are beyond the scope of this study. This signifies the fitness of the model thus, the model is fir and the explanatory variables are selected and utilized. This is confirmed by the value of adjusted R square which even after the adjustment is still strong and positive at 53%. The F statistics of 3.66 is a proof for the fitness of the model, and it is significant at 1%.

X. CONCLUSION

The study finding rationalized by the explanation given by expediency theory, where the theory explains that taxes generated in a nation should be able to meet its economic and social objectives. In Sri Lanka the main aim of tax revenue is to raise revenue that can be used or that can contribute to the growth and development process. The main issue facing the Sri Lanka tax system is the effectiveness and efficiency in the administration of these taxes. Changes in Government

policies are done with the hope of promoting and protecting the interest of the reigning government and authorities are often forced to reshape tax structure to accommodate these policies Tax revenue provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ill of the society such as income inequalities regional disparities, unemployment and cyclical fluctuations and so on. Therefore, the findings of this study contribute towards a better understanding of tax revenue and economic growth in Sri Lanka.

This study analysis has thrown some light on the Nexus Between Sri Lankan Tax Revenue and Economic growth as proxied by Gross Domestic Product. It is glaring that the Sri Lanka total tax revenue generated has a significant impact on the economy general.

It is better to introduce Tax Identification Number (TIN) which is a registration and storage of tax payers' data in Sri Lanka for the reduce cases of tax evasion and remittance of tax collections especially import duties which reported a negative impact on GDP. Only professionals should be responsible for tax administration. Further tax clearance certificates and other tax documents used in government transactions should be referred back to the relevant revenue authority for authentication.

REFERENCES

- [1] T. O. Adedeji and C. S. Oboh, "An Empirical Analysis of Tax Leakages and Economic Growth in Nigeria", *European Journal of Economics, Finance and Administrative Sciences*, vol. 48, 2012.
- [2] J. C. Anyanwu, *Nigerian Public Finance*, Joanne Educational Publishers, Onitsha.
- [3] H. L. Bhartia, *Public Finance*. 14th Edition, Vikas Publishing House PVT Ltd, New Delhi. 2009.
- [4] Central Bank of Sri Lanka (Various Issues), *Annual Reports*, Central Bank of Sri Lanka, Colombo.
- [5] Inland Revenue Department Report of Sri Lanka (Various Issues).
- [6] M. O. Kayode, "The National Question and Revenue Allocation: An articulation of some of the problems and issues", *The National Questions and Economic Development in Nigeria* Ibadan: Nigerian Economic Society, 1993.
- [7] B. D. Kiabel and N. G. Nwokah, "Boosting Revenue Generation by State Governments in Nigeria: The Tax Consultants Option Revisited", *European Journal of Social Sciences*, vol.8, no. 4, 2009.
- [8] B. D. Kiabel, and V. U. Ogu, "Tax Administration in Nigeria: The Impact of Using Revenue Consultants" A paper presented at the Workshop on Revenue Generation in the Oil Producing States of Nigeria Organised by Global Consults, Port Harcourt, 1999.
- [9] Kopalapillai: "Indirect Taxation in Sri Lanka: The Development Challenge" *Economic Review*, October, November, 2010.
- [10] G. N. Ogbonna, and A. Ebimobowei, "Impact of Tax reforms and Economic Growth in Nigeria.", Maxwell Scientific Organization, 2011.
- [11] C.S. Ola, "Income Tax Law and Practice in Nigeria", Heinemann Educational Books Nigeria Plc, Ibadan, 2001.
- [12] Olopade and D. O. Olopade, "The Impact of Government Expenditure On Economic Growth and Development in Developing Countries: Nigeria as A Case Study", 2010.



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