Tax policy changes and their impact on Gross Domestic Production (GDP)

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ABSTRACT

The tax revenue is one of the major sources of income in every government. Tax policy changes play an important role in the country's gross domestic production. The main purpose of this study is to find out the impact of tax policy changes on tax revenue of Sri Lanka. Data on the tax revenue and tax policy changes were collected from the year 2010 to 2019 for this study purpose. The results reflect that there is significant association between tax policy changes and Gross domestic production of the country. Now a day every county is facing the economic crisis all over the world especially the number of developing countries are facing the budget deficit in every budget which is not good for the economic stability and development of Particular County. Here the tax policy changes are one of the major tools to the government to impact the tax revenue as well budget deficit as their needed.

INTRODUCTION

Taxation is one of the important elements in managing national income, especially in developed countries tax revenue is playing an important role in civilized societies since their birth thousands years ago [Lymer and Oat]s. Tax is defined as a compulsory levy or payment, imposed by government or other tax raising body on income, expenditure, or capital assets, for which the taxpayer receives nothing specific in return' [Lymer and Oats1] as directly but they are enjoying some advantages as indirectly such as free health, free education, nation defense, infrastructure facilities, etc… Income tax was introduced very firstly in England (UK) in 1799. In Sri Lanka income tax was introduced under colonial system in 1932. The first year of assessment (Y/A) was started from 1931. 1931/1932 is the first year of assessment in Sri Lankan tax system.

Sri Lankan tax revenue can be divided in to two major categories such as direct tax revenue and indirect tax revenue. Tax revenue contributes more than 91% on total revenue of the country on the total tax revenue more than 75% comes from indirect tax revenue and the remaining part contributes by the direct tax revenue. Here the Value Added Tax (VAT) is one of the major tax under the direct tax revenue as well as Income Tax (IT) is the major tax under direct tax revenue of the country [Singh, Shanmugam , Lymer and Oats2] stated the main objective of imposing certain taxes on the public is to generate revenues for the government for public expenditure. However, there are other functions of taxes as suggested by Lymer and Oats [1] including to reduce inequalities through a policy of redistribution of income and wealth so that income gap between the rich and the poor is not as significant.

Tax systems are also designed for social purposes, such as discouraging certain activities which are considered undesirable and protecting the environment. For instance, the excise taxes on alcohol and tobacco are (at least partly) exercised to decrease consumption and thus encourage a healthier lifestyle. Taxes are also expected to ensure economic goals through the ability of the taxation system to influence the allocation of resources including transferring resources from the private sector to the government to finance the public investment program, the direction of private investment into desired channels through such measures as regulation of tax rates and the granting of tax incentives.

In addition, import duties could be used to protect local industries from foreign competition. This has the effect of transferring a certain amount of demand from imported goods to domestically produced goods. Every government is often doing varies changes in the tax policy in the budget times; it will impact on the tax revenue collection as well as budget deficit. Tax policy changes mean some old tax remove from the taxation, include some new taxes in to taxation for example Advance Personal Income Tax was introduced in 2020 for this purpose government removed PAYE tax from Sri Lankan taxation, the government made changes on rate of tax charge for example from the year of assessment 2020/2021 individual's income tax rate 6%,12%,18%, also government can give tax exemption for some sectors example from the year of assessment 2020/2021 IT sector exempt from tax. Those above hind of tax policy changes may cause for the impact on tax revenue.

Statement of the Problem

There is a problem in Sri Lanka which is, the percentage of the direct tax revenue in Gross Domestic Production (GDP) of the country is continuously reducing in the every year here the indirect tax revenue was 11.3% in GDP in 2010s however it was as 7.5% in the GDP in 2020. Also the direct and indirect tax revenue are playing major role in the total revenue of the country so the tax revenue is important for the reducing the budget deficit of the country.

Sri Lanka is facing the budget deficit continuously also the government of Sri Lanka has done and doing several changes in tax policies to reduce the budget deficit through increasing tax revenue however they are unable to reduce the budget deficit. In 2020 Sri

Lanka had budget deficit 1,016 Billion LKR as well tax revenue 1,217.53 Billion LKR, it is not good shine for any country specially Sri Lanka because it is one of the developing country. Sri Lankan government has done so many changes in tax policy from 2010 to 2020, there were several party had the power of Sri Lanka as well there were number of finance minister and president in the period even though they could not be done major positive changes.

Tax policy changes can be considered withdraw Nation Building Tax, Economic Service Charge, PAYE Tax and introduced Advance Personal Income Tax, tax exemption to IT, agriculture etc. The government has to take necessary steps to collect tax revenue and improve budget deficit as positively that mean reduce budget deficit so that they have to know about tax policy changes whether impact on tax revenue if impact how it is impact. The following Research Questions (RQ) were formulated in this research.

Research Questions:

i. RQ1: Do tax policy changes impact on tax revenue?

ii. RQ2: Is there any relationship between tax policy changes and tax revenue?

Significance of the Study

This research attempted to evaluate and analyze the impact and relationship of tax policy changes on tax revenue. The main purpose of tax policy set by the Sri Lankan Government is to maximum collect taxes in an efficient manner which mean at the lowest costs (time and money), to improve compliance and to institute effective enforcement through prevailing legal procedures.

This research help to the government to make the right changes on tax policy, increase tax revenue and take necessary steps to reduce the budget deficit in the future as well as to the public and tax related people to acquire knowledge regarding tax policy changes and tax revenue from 2010 to 2019 in Sri Lanka. Researcher hopes that, this research gives to the government how increase tax revenue through tax policy of Sri Lanka. The results of this study contribute to tax literature and improve the tax system not only in Sri Lanka but also internationally specially developing countries by enabling both a comparison of the Sri

Lankan tax system and tax policy how impact on tax revenue, how can improve tax revenue through effective tax policy changes that means whether tax policy changes needed or not in every sequence of the period.

Research Objectives

The main objective of the research was, find out the impact of tax policy changes on tax revenue, the following objectives were considered as sub objectives.

- **i.** To analyze, compare tax policy changes and gross domestic production in the period of tax policy changes years' and non-tax policy changes years.
- **ii.** To find out the relationship between tax policy changes and gross domestic production.
- **iii.** To suggest the possible recommendations to government of Sri Lanka.

Scope of the Research

The researcher considered Sri Lankan all tax revenues and major changes in the tax policy here nontax revenue did not consider. The research aims to analyze and find out impact of tax policy changes on tax revenue of Sri Lanka. The past ten years central bank reports (CBR) from 2010 to 2019 of the Sri Lanka used in this research to collect necessary data for the study

Literature Review

There are very few studies which have been conducted to see tax policy changes and their impact on tax revenue however there are some of the relevant related studies with regard to the subject matter were reviewed below. Expert of group United Nations noted that, there is the need to streamline a nation tax system so as to ensure the realization of optimal tax revenue through equitable and fair distribution of the tax burden.

The stark reality in most developing countries is that whilst there is severe budgetary pressure as a result of ever increasing demand for government expenditure, there is a limited scope for raising extra tax revenues, as a result of Noncompliance with corporate persons result from technicalities and tax avoidance, poor record keeping and cash transactions.

In the same Desai, Foley and Hines [5] found that governments have at their disposal many tax instruments that could be used to finance their activities such as recurrent and capital expenditure. These tax alternatives include changes in tax policy by the way of changes in personal and corporate income taxes, taxes on sales and services as well as manufacturing, value added taxes, capital gain taxes and others. It is not uncommon for a country to impose all of these taxes evenly.

Practically, in choosing what tax instruments to use and what rates to impose, governments are typically influenced by their expectations of the effects of taxation on investment and economic activity, including foreign direct investment (FDI) and economic stability of the country, income distribution among people, tax evasion of people and last year's trends of tax revenue budget and collection as well budget deficit of the country.

They have noted that there is extensive empirical study that high corporate income tax rates are associated with low levels of FDI. On the issue of the problem of tax revenue instability Lim 6 in his study, instability of government revenue and expenditure in less developed countries observed that tax revenues instability was the major cause of expenditure instability in less developed countries in the period going from 1965 to 1973.

The previous empirical studies noted that most of the tax structures were highly significant and related with the economic growth in a country here in the economic growth tax revenue and budget deficit are key elements because if any country want to has high economic growth rate, it should has low budget deficit on the other hand it should has high level of tax revenue because it is the major part of revenue in Sri Lanka it is around 80% of total revenue. Gober and Burns [7] stated that, a countries economy may be affect differently due to any tax policy changes in each tax components. According to their empirical finding, excise taxes as percentage of Ireland's total revenue was four times the level in U.S. Change in economic growth depends on each of tax structures Gold, Mahdavi [8] revealed that the effect of rises in total tax revenue will reduce the growth in developing countries.

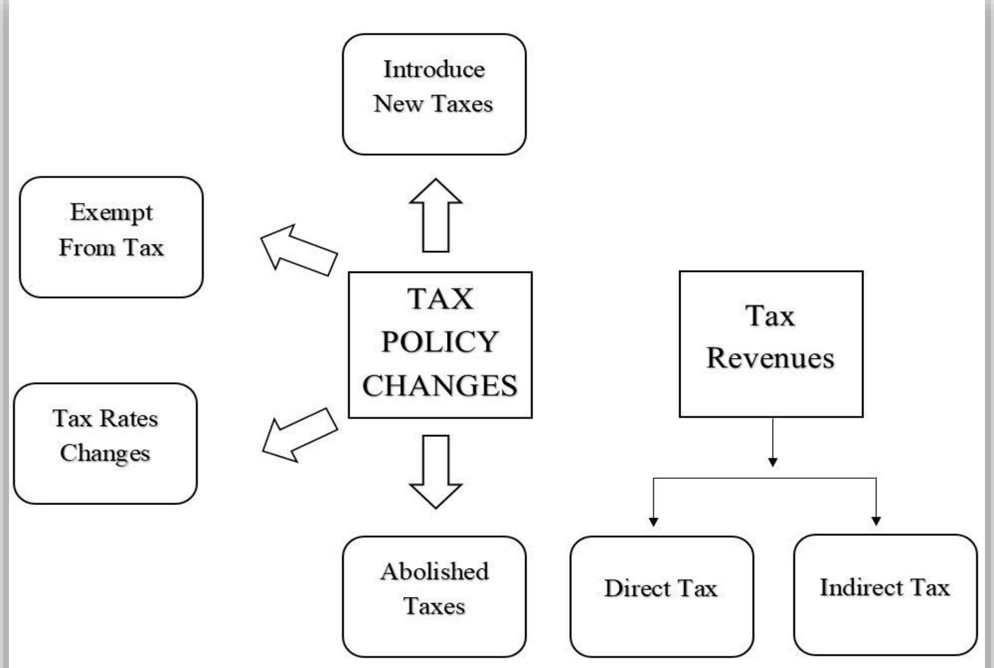
Due to by the fiscal crisis and tax policy changes in the past several decades, several developing countries had to revive its economy by changing the level of taxes through tax policy changes. Two of the early studies by Hinrisch and Musgrave [9] stated the relationship between the ratios of tax revenue to GDP (TAX/GDP) and noted it was relatively low in the developing countries. One of the studies that shows on African countries by [Leuthold 10] were stated the effect of (TAX/GDP) from 1973 to 1981 which used the OLS estimation method. From his study, the share of agriculture will impact the level of taxation and robust the relationship of total tax revenue into direct taxes as well indirect taxes.

The level of taxes will give the different effect to growth and other indicators due to the macroeconomic variables such as extent of corruption and adversely affected by the inflation rate in nine African countries from 1985-1996 so far reveal the most comprehensive assessment of the impact tax revenue on economic growth. In his he disaggregated tax revenue into its various components that means varies taxes such as; excise duties, personal income tax, petroleum profit tax, companies' income tax, value added tax and education tax.

Hypothesis One: For this first hypothesis, the dependent variable is tax revenue; independent variable is tax policy changes. The hypothesis form is: H1: There is a significant relationship between tax policy changes and tax revenue.

Hypothesis Two: For this second hypothesis, the dependent variable is annual tax revenue and the independent variables are the changes in tax policy. The first hypothesis stated form is: H2: There is a significant impact of tax policy changes on tax revenue.

Conceptualization Model: Based on the literature review, following conceptual model was formulated to depict the relationship between tax policy changes and tax revenue.



Conceptualization model of tax policy changes impact on tax revenue and budget deficit

Research Methodology

This study aims to evaluate and analyze the impact and relationship of tax policy changes

Concept	**Variables**	**Indicators**	**Measures**
Tax Policy Changes	New Taxes Abolished Taxes Exempt from Tax Tax Rate Changes	Changes in Tax Policy by Parliament	Tax Policy Changes Years = 1 No Tax Policy Changes Years = 0

on tax revenue of Sri Lanka. Researcher can ensure that here the data be true and fair

Tax Revenue	Direct Tax Indirect Tax	Direct And Indirect Tax Revenue of the country for the year	Tax Revenue = Direct Tax + Indirect Tax

because all data was extracted from central bank reports and publication and official website of Inland Revenue - Sri Lanka which are the ultimate organizations of the country and also which are come under high authority of the country.

Data Sources: Secondary data were used in this study those secondary data collected from central bank reports of Sri Lanka from 2010 to 2019, Publications of Inland Revenue, text book, journals, magazines, websites and local newspapers.

Research Design: This study used exploring research design for collecting, analyzing and evaluating quantitative data in the research process to understand the research problem more completely. In this study the priority of the design was given to the quantitative methods because the quantitative research study can only use to answer the research questions as “Do tax policy changes impact on tax revenue” and “Is there any impact and relationship among tax policy changes and tax revenue” as well answer to the hypothesis of the study.

Sampling Frame Work: The secondary data from the Central Bank of Sri Lanka and Department of Inland Revenue used for the purpose of collecting the main data for the study. The study was considered whole of the Sri Lanka not only for one specific area. Through the judgmental sampling the researcher considered the period from 2010 to 2019 which covered 10 years in the study with very recent period.

Reliability and Validity of the Data: The secondary data used in this data, all the relevant data tax revenue, direct tax revenue, indirect tax revenue and budget deficit from 2010 to 2019 collected from the central bank reports, Sri Lanka. The tax policy changes were collected from the Department of Inland Revenue. The two organizations are high authority organizations in Sri Lanka to publishing the economic data in Sri Lanka due to that the collected data are reliability and validity data in this study.

Methods and Measures: In the quantitative approach, various statistical methods were employed to compare the collected data from the Central Bank Reports and Department of Inland Revenue (Sri Lanka) official website. These methods included inferential statistics, which involved in drawing conclusions about a population based only on sample data. It included correlation analysis and single regression analysis.

Compare Means Analysis was used to compare the means value of direct tax revenue, indirect tax revenue in the period of tax policy changes year and non-tax policy changes year.

Research Model: To identify the impact of tax policy changes on tax revenue of Sri Lanka, a regression model can be estimated as below.

$$\boxed{\mathbf{Y = a + bx}}$$

Where: Y = Tax Revenue

A = Constant

B = Tax Policy Changes Slope

X = Tax Policy Changes

Years	Tax Policy Changes	BD % in GDP	DTR % in GDP	ITR % in GDP
2010	Not Applicable	-6.95%	2.11%	9.18%
2011	• Tax appeal Commission was formed commencing from 01.04.2011 • Individual tax free allowance increased to Rs. 500,000 • Introduction of SVAT scheme w.e.f 01.04.2011 • Rate of share Transaction Levy was increased to 0.3% w.e.f.01.01.2011 • 20% of VAT Rate was reduced to 12% w.e.f 23.11.2011 and VAT • On financial rate also reduced to 12% from 01.01.2011 • Restriction of 85% of output for claiming input VAT has been removed	-6.24%	2.18%	9.54%

	• NBT rate was reduced to 2% and extended to charge on wholesale and Retail businesses • Threshold for ESC registration was increased to Rs.25 Million per quarter • Abolition of Debits Tax from 01.04.2011 • Abolition of Withholding Tax on Specified Fees, and Commercial Rents (01.04.2011) • Abolition of VAT Advance Payments (January 1,2011) • Abolition of Social Responsibility Levy (SRL) (01.04.2011 in relation to income tax) • Abolition of Regional Infrastructures Development Levy (RIDL)(January 1, 2011) • Abolition of Turnover Tax (TT) collected by the Provincial Councils (01.01.2011)			
2012	Threshold on Value added Tax and Nation Building Tax was increased to Rs. 12 million, Chargeability on ESC is restricted to persons or partnerships who do not have taxable income and tax losses and Betting and gaming levy were increased and 5% levy on gross collection was introduced with a requirement of registration.	-5.6%	1.98%	8.43%
2013	• Registration Threshold on Value added Tax and Nation Building Tax was increased to Rs. 12 million per annum • Introduction of VAT on wholesale and retail trade, and liable threshold for registration was not less than Rs.500Mn (including exempt supplies) for any consecutive 3 months in an year	-5.19%	2.19%	8.54%

	• The threshold in relation to partnership tax was increased to Rs.1000,000			
2014	• Maximum rate of income tax applicable on employment income of Qualified professionals 16% • Liable threshold for registration of wholesale and retail trade reduced to Rs.250 Million	-6.23%	1.91%	8.22%
2015	• Threshold on Value added Tax and Nation Building Tax was increased to Rs. 15 million per annum and Rate of VAT reduced to 11% • Liable threshold for registration of wholesale and retail business reduced to Rs.100 Million • Fixed qualifying payment for employees was increased up to Rs. 250,000 • Maximum income tax rate applicable to employment income for every employee was limited to 16% • Annual levy payable under the Betting and Gaming Levy Act increased to 10% • Introduction of Casino entry fee of US$100 per person • Imposition of Excise (Special Provision) Import or Manufacture of Liquor, Cigarettes and Custom Duty on Motor Vehicles in lieu of VAT and NBT • Super Gain Tax was introduced as one off payment, for any individual, company or group of company who has earned profits over Rs. 2,000 million in the tax year 2013/2014 will be liable to pay 25% of their profit.	-7.01%	2.23%	9.28%
2016	Not Applicable	-5.34%	2.15%	10.01%
2017	Inland Revenue Act No.24 of 2017	-5.5%	2.06%	10.47%
2018	Not Applicable	-5.32%	2.17%	9.81%
2019	Not Applicable	-7.97%	2.85%	8.71%

Where GDP: Gross Domestic Production, BD: Budget deficit, DTR: Direct Tax Revenue, ITR: Indirect Tax Revenue

Results and Interpretation

Compare Means Analysis: Table 3 compare means analysis shows mean, standard deviation and median are not in the same level in the period of no tax policy changes and tax policy changes. According to the above table it is clearly seen that direct tax revenue, indirect tax revenue and tax revenue are higher amount in the period of tax policy changes than in the period of no tax policy changes. Therefore we can come to the conclusion that the tax policy changes one of the sources to the government to increase its tax revenue which includes direct tax revenue and indirect tax revenue of the country according to the compare mean analysis.

Recommendation

Based on the study the tax policy changes significantly impact on tax revenue which is in the significant level in the Sri Lanka. There are so many barriers in the full implementation of the tax policy and collection of the tax revenue in Sri Lanka such as no more tax compliance, tax evasion, not adequate tax knowledge among the people, not adequate staffs for tax department, not adequate number of branches for Inland Revenue, political instability of the country, post war and pre-war conflict situation of the country, not enough modernization activities of the Inland Revenue, other country's influences as well as international influences, not matches taxes in the country and regular changes in the tax system and policy of the country even though the tax policy changes of the country has the impact on tax revenue of the country.

The tax policy changes one of the tools for the government to increase the tax revenue in the country. Generally the tax policy changes have two objectives such as increase the tax revenue and encourage the economic development of the country normally every government is making the changes in the tax policy based on the past years budget deficit or surplus of the country.

Developing country as well as Sri Lanka are normally facing budget deficit in the every year so those countries have to make the tax policy to increase the tax revenue and reduce the budget deficit here this study findings conclude that there is a significant impact of tax policy changes on tax revenue in Sri Lanka. As a researcher has the real responsibility that should be focused to provide the valuable suggestions to the government authority, Inland Revenue, Treasury, Ministry of finance and planning and policy makers of tax policy changes and economic development of the country to increase the tax revenue of the country through the effective and efficient way in Sri Lanka.

Finally, as a CTT student recommends that the tax policy changes and tax revenue of Sri Lanka should be considered in the Sri Lanka which is one of the major areas in Sri Lankan economy. The government should consider making effective tax policy changes to increase the tax revenue and reduce the budget deficit.

The followings can be suggested to the government of Sri Lanka as well as similar other countries to their successful maintaining of the economic conditions. The government, ministry of education, ministry of higher education and Department of Inland Revenue should try to give tax knowledge to the people of the country that tax knowledge should be given from school level, University level and other higher educational level here from the school level will be the great choice because it covers a major population than othersThe department of Inland Revenue should take the necessary steps to fulfill the vacancies in the department. The Department of Inland Revenue tries to give the opportunity to tax compliance and furnish the returns from home and business place of the tax payers especially one of our neighbor county India give such opportunity in their county. The Department of Inland Revenue and other relevant authority try to take the number of steps to having well designed meaningful tax awareness program all over the island especially post war conflicted areas.

The Department of IR needs to take necessary steps and legal action to tax evasion, non-furnishing return and submitting fraud account to the department for tax calculation and payment. The Department of IR and government may use advertising as promotion tools to advertise the importance of tax compliance, tax revenue for a country and how the tax revenue is used in the country through mass media like national and other local TV channels. The government of Sri Lanka should take the necessary steps to maintain the economic and political stability of the country.

Through the above recommendation as a researcher hopes that the government of Sri Lanka may have the followings.

i To undertake an effective and efficient operation of the department of Inland Revenue.

iii. To increase the direct tax revenue and indirect tax revenue in Sri Lanka.

iv. To make the useful tax policy changes in the country.

v. To enhance the tax knowledge among the people in the country.

vi. To improve the tax compliance in the country and motivate the people to self-compliance and willing to pay tax.

vii. To enhance the tax awareness of the people in all over the country.

viii. To change the quality and quick service of the department of Inland Revenue through the computerized work.

ix. To give the employment opportunities and fulfill the vacancies in the department of Inland Revenue

Directions for Future Researches: This research focuses on the tax policy changes, tax revenue and budget deficit here the tax policy changes only considered major changes from 1990 to 2012.

Therefore further researcher can take the period from the introduction of the taxation in Sri Lanka up to the current period for the analysis which study can bring the ultimate findings on the topic of the research as well as here the researcher considered only direct tax revenue and indirect tax revenue under the tax revenue as accumulatively there are number of taxes in the indirect taxes due to that further researcher may consider major taxes under the indirect tax revenue. The researcher taken the tax policy changes and their impact on tax revenue the future researcher may consider economic growth and gross domestic production of the country in the future study.

From the findings it is clearly understood that there is no significant impact of tax policy changes on tax revenue, an important future research direction is to find out the key factors to determine tax revenue and budget deficit of the Sri Lanka. As much interest researcher in the field of taxation, there very few research study in the field of taxation in Sri Lanka which related study much needed for the country specially for developing country due to that the further researcher can do their study in the field of taxation to contribute to the country.

In the future the researcher may consider to having the study on indirect tax revenue and their impact on economic growth and gross domestic production of the country. The future researches they may consider the same research topic with similar country as comparative study. The future researches can do the research in the same heading in other countries to enhance the knowledge in the field.

Conclusion

The number of countries is facing the economic crisis and budget deficit in all over the world in the 21st century. The tax revenue is one of the essence of the all the government to have successful economic development and maintain economic stability in the country. Tax revenue is one of the major sources for the government to generating major part of the revenue and to meet the expenditure of the country and also budget deficit of the country depends on the tax revenue and total expenditure of the country.

According to the above statements all the country has to give the much consideration on tax revenue, tax policy changes and tax system of the country. Especially Sri Lanka is one of the developing countries and it is facing the budget deficit continuously in every year budget which is not good for any countries for the development. Also the indirect tax revenue in the percentage of gross domestic production is continuously reducing in every year specially last 2020 and 2021. The indirect tax revenue is seriously reducing in the country due to that the country has to give much consideration on the tax revenue of the country.

Based on the above study the tax policy changes have the impact on tax revenue. There are so many barriers behind the effective and efficient implementation of the tax policy, collecting tax revenue, having effective tax system in the county in the country due to that the government should consider the researcher recommendation to reduce the problem and may consider other number of ways to reduce the barriers in the country. Based the study as a researcher finally suggest to the government to undertakes the effective actions to have the effective function of Department of Inland Revenue and to make effective tax policy changes in the specific period rather than each year.

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