Tax Policy Changes, Tax Revenue and Budget Deficit: A Case in Sri Lanka

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ABSTRACT

The aimof Tax Policy Changes, Tax Revenue The aim of the tax policy changes are generating and increasing the tax revenue of the country. The high tax revenue can reduce the budget deficit of the country. There are number of tax policy changes have been made by Sri Lanka despite some on-going economic issues. Therefore, this study presents a new model of tax policy changes, tax revenue and budget deficit.

Quantitative approach was utilized in this study to analyse tax policy changes, direct tax revenue, indirect tax revenue and budget deficit of the country. This study covers 23 years which are from 1990 to 2012 in Sri Lanka. According to the quantitative study the impact of tax policy changes on the tax revenue of the country in the high level ($P < 0.01$) however tax policy changes have not significant impact on budget deficit of the country. Further, direct tax revenue of Sri Lanka has significant impact on the budget deficit ($P < 0.05$) and predicts 98.9% of the variation found. There is a mean difference in tax revenue and budget deficit between the period of tax policy changes years and no tax policy changes years even though there is no significant mean difference. The tax revenue of the country was higher in the years of tax policy changes than no tax policy changes years. Correlation analysis confirmed that there is significant relationship between tax policy changes and tax revenue as well as budget deficit of the country. Also the direct tax revenue and indirect tax revenue have the significant relationship with budget deficit of the country.

Keywords - Budget Deficit, Direct Tax Revenue, Indirect Tax Revenue, Tax Policy Changes

1. INTRODUCTION

Taxation is one of the key elements for managing national income, especially in developed countries and has played an important role in civilized societies since their birth thousands years ago [1]. Tax is defined as ‘a compulsory levy, imposed by government on income, expenditure, or capital assets, for which the taxpayer receives nothing specific in return [1] as directly but they are enjoying some benefits as indirectly such as free health, free education, nation defense, infrastructure facilities, etc However, not all payments to government are considered as tax payments for instance, charges, tolls and other levies are paid to obtain a specific service and are not strictly tax payments.

Every government is often doing varies changes in the tax policy in the budget to impact on the tax revenue collection as well as budget deficit. Tax policy changes mean some old tax remove from the taxation, introduce some new taxes in to taxation for example value added tax was introduced in August 2002 in Sri Lanka for this purpose government removed goods and service tax from Sri Lankan taxation, the government is doing changes in the rates of tax charge for example from the year of assessment 2011/2012 company’s income tax rate is as 28% [2] , also government can give tax exemption for some sectors for example fishing sector exempt from tax for five years from the year of assessment 2011/2012. Like above hind of tax policy changes may cause for the impact on tax revenue.

Tax revenue is one of the major parts of the government revenue. In Sri Lanka more than 85 percent of government revenue comes from taxation. It can be divided into direct tax and indirect tax. Indirect tax revenue contributes more than 80percent to the national taxation income whilst direct tax revenue only contributes below than 20 percent [3]. Taxation practice is pivotal for accelerating economic growth to any government. The main objective of imposing certain taxes on the public is to generate revenues for the government for public expenditure [4]; [1].

Government budget comprises government’s revenue and expenses for one-year period. The tax revenue is major source of income and expenses cover recurrent expenses and capital expenses in the budget. Budget deficit means government total revenue less than its total expenses. Budget deficit is one of the major problem in developing countries in the current world also Sri Lanka is facing budget deficit in every year although it is differ from year to year but the current budget position is not in the good level. Sri Lanka is providing numerous social services in terms of either least cost and with free charge for example free education, samurdthy, electricity, postal, transport, free health, free dry foods, etc The above reasons and inefficiency in tax collection, tax evasion, inefficient tax policy, past civil war are the major reasons for facing budget deficit in Sri Lanka.

RESEARCH PROBLEM

There is a problem in Sri Lanka which is, the country is facing the budget deficit continuously, furthermore it is increasing, the government is amending tax policies to reduce the budget deficit still they are unable to reduce the budget deficit. In case of 2012, Sri Lanka had budget deficit LKR 488,967 million and tax revenue was LKR 845,297 million [5]. It shows that proportion of the tax revenue and budget deficit is 1:0.578, it is not good shine for any country.

Sri Lankan government has done so many changes in tax policy from 1990 to 2012. Tax policy changes were as abolished turnover tax, introduced value added tax, nation building tax, economic service charge, tax exemption to fishery, agriculture and others, some other exemption from income tax such as one free vehicle allowance and others. 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 budget deficit if impact how far impact.

The following research questions were formulated in this study.

RQ_1: Do tax policy changes impact on tax revenue?

RQ_2: Do tax policy changes impact on budget deficit?

RQ_3: Is there any significant impact between tax policy changes, tax revenue and budget deficit?

RQ_4: Is there any relationship between tax policy changes, tax revenue and budget deficit?

OBJECTIVES OF THE RESEARCH

The main objective of the study was to find the impact of tax policy changes and tax revenue on budget deficit of the country, the following objectives considered as sub objectives.

- To analyze & compare tax policy changes and tax revenue.
- To ensure trends of tax revenue and budget deficit over the years.
- To find out the relationship between tax policy chan ges, tax revenue and budget deficit.
- To suggest the possible recommendations to govern ment of Sri Lanka.

2. LITERATURE REVIEW

There are limited studies in the field of taxation in the Sri Lanka conversely there are number of studies focus in the field in other countries. Desai etal., [6] find 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. On the issue of the problem of tax revenue instability Lim [7] in 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.

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. Some other existing studies by Hinrisch [9] stated the relationship between the ratios of tax revenue and GDP (TAX/GDP) and also noted it was relatively low in the developing countries. Tax education can constitute any informal or formal programme organized by the tax authority or independent agencies by which to facilitate taxpayers in completing tax returns correctly and also to cultivate awareness of their responsibilities in respect of the tax system, [10]; [11].

Lymer and Oats [1] noted that the self-assessment system (SAS) was introduced in 1996/97 in UK. According to Kimura [12] Tax administration in Japan has gone through various reforms to improve its standards. The introduction of the self-assessment system was the particular highlight of tax administration reform after World War II. Kimura [12] states that in the initial days of introduction, the tax authority was worried about winning the trust of taxpayers and there were many alterations to the process before the system was considered to be operating smoothly

According to Kimura [12] Tax collection had also become a major obstacle, whereby it operated in an extraordinary environment where delinquency rates were more than 40 percent. Prevention of non-compliance and prompt addressing of new delinquency therefore became the focus. Whilst calling upon taxpayers to pay tax in time, automatic debiting of tax against their bank accounts was also implemented. The past empirical studies revealed that, most structures of taxation were highly significant, impact and related with the economic growth in a country. According to Marsden's [13] mentioned that change in tax policy will affect the economic planning. Gober and Burns [14] stated that a countries economy may be affect differently due to any changes in each tax components. Agbeyegbe[15] drawned the same geographical sample, the impact and consequences of tax revenues' components on economic indicators: evidence from panel groups data 101 which are 22 countries in sub-Saharan Africa from 1980 to 1996. The study focuses the effect of tax revenue on trade liberalization or openness. The study consists three components in total tax revenue namely taxes on income, international trade and goods and services tax which are as ratio of GDP and found the weak relation among these three tax types.

Mahdavi [8] mentioned the effect of income, profit and capital gain tax due to change in inflation rate and investment plans. Based on the study, when the inflation rates increase, the household will protect their assets by substituting it with the assets that less domestic tax such as jewelleries. Glomm and Ravikumar [16] revealed that when the government reduces the capital income taxes, that will reduce the spending on education and the long-run growth of the countries. In this context, the capital income taxes have positive correlation with the economic growth of the countries.

Worlu and Emeka [17] scrutinized the impact of tax revenue on the economic growth of Nigeria, judging from its impact on infrastructural development from 1980 to 2007. The study results note that, tax revenue stimulates economic growth through infrastructural development. That is, it highlights the channels through which tax revenue impacts on economic growth in Nigeria. This study also shows that tax revenue has no independent effect on growth through infrastructural development and foreign direct investment, but just allowing the infrastructural development and foreign direct investment to positively respond to increase in output.

Clotfelter [18] claimed 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 behaviour although the exact impact is still unclear and debatable. Silvani and Baer [19] discussed the importance of the tax authority having a simple tax return and system from the taxpayers' point of view. Although the word 'simple' carries multiple interpretations, at least the majority of taxpayers require that the tax return should be as simple as possible.

3. METHODOLOGY

HYPOTHESES

H_1 : There is a significant relationship between tax policy changes and tax revenue.

H_2 : There is a significant relationship between tax policy changes and budget deficit.

H_3 : There is a significant relationship between direct tax and budget deficit of Sri Lanka.

H_4 : There is a significant relationship between indirect tax revenue and budget deficit of Sri Lanka.

H_5 : There is a significant mean difference in the level of direct tax revenue between the period of tax policy changes and non-tax policy changes of Sri Lanka.

H_6 : There is a significant mean difference in the level of indirect tax revenue between the period of tax policy changes and non-tax policy changes of Sri Lanka.

H_7 : There is a significant mean difference in the level of budget deficit between the period of tax policy changes and non-tax policy changes of Sri Lanka.

H_8 : There is a significant impact of tax policy changes on tax revenue of Sri Lanka.

H_9 : There is a significant impact of tax policy changes on budget deficit of Sri Lanka.

H_{10} : There is a significant impact of direct tax revenue on budget deficit of Sri Lanka.

H_{11} : There is a significant impact of indirect tax revenue on budget deficit of Sri Lanka.

CONCEPTUAL FRAMEWORK

Based on the Literatures, the following conceptual model was constructed. This model of tax policy changes, tax revenue and budget deficit here tax policy changes include new tax addition, exempt from tax, removal from taxation and tax rates changes. Sri Lankan tax revenue includes direct tax and indirect tax.

a) Data Sources

Secondary data were used in this study, which was collected from central bank reports. It was measured in terms of a 23 years average during the period from 1990 to

2012. Besides this study also were utilised other manuals and reports say Inland Revenue publications, text book, journals, magazines and local news papers.

b) Sampling Frame Work

The study covered whole of the Sri Lanka not only for one specific area. Through the judgmental sampling, the researcher considered the period from 1990 to 2012 which covers 23 years in the study with very recent period.

c) Reliability and Validity of the Data

The secondary data used in this study, all the relevant data namely tax revenue, direct tax revenue, indirect tax revenue and budget deficit was measured during the period of 1990 to 2012. The tax policy changes collected from the Department of Inland Revenue. The above organizations are high authority organizations in Sri Lanka to publishing the economic data.

d) 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 include (1) descriptive statistics, which involved in collecting, summarizing and presenting data. These analyses have given the information for the data through graphical analysis. (2) Inferential statistics, which involved in drawing conclusions about a population based only on sample data. It included correlation analysis independent sample t-test single and multiple regression analysis.

Correlation Analysis was tested to find out the significant relationship between tax policy changes and direct tax revenue, indirect tax revenue, budget deficit of Sri Lanka.

Regression Analysis was used to find out the significant impact of tax policy changes on direct tax revenue, indirect tax revenue and budget deficit of Sri Lanka.

T- Test was used to identify the significant difference between the two variables. In this research, among the several t-tests, the independent sample t-test was used. The Independents-Samples t- test procedure compares means for two groups of cases. And also the data analysis for the proposed research was performed with the help of the latest SPSS computer package.

e) Research Model

To identify the impact of tax policy changes on tax revenue of Sri Lanka, a regression model (1) can be estimated as below.

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

To identify the impact of tax policy changes, direct tax revenue and indirect tax revenue on budget deficit of Sri Lanka, a regression model (2) can be estimated as bellow.

$$\mathbf{Y_1 = \beta o + \beta_{1\,X1} + \beta_{2\,X2} + \beta_{3\,X3} + \text{----------}\ \varepsilon_i}$$

Where:

Y	=	Tax Revenue
a	=	Constant
b	=	Tax Policy Changes Slope
x	=	Tax Policy Changes
$\mathbf{Y_1}$	=	Budget Deficit
$\boldsymbol{\beta_o}$	=	Constant
$\boldsymbol{\beta_1}$	=	Tax Policy Changes Slope
$\boldsymbol{\beta_2}$	=	Direct Tax Revenue Slope
$\boldsymbol{\beta_3}$	=	Indirect Tax Revenue Slope
$\mathbf{X_1}$	=	Tax Policy Changes
$\mathbf{X_2}$	=	Direct Tax Revenue
$\mathbf{X_3}$	=	Indirect Tax Revenue
And **εi**	=	Random Error

4. RESULTS AND DISCUSSION

a) Correlation Analysis

According to the table 2 it can be revealed that correlation among the variables here tax policy changes positively correlated with tax revenue also which is significantly correlated as well as tax policy changes is correlated with budget deficit which is also significantly correlated ($P < 0.05$). According to the above table, direct tax revenue and indirect tax revenue are significantly correlated with budget deficit which are at 1% level ($P < 0.01$). Therefore, we can conclude that tax policy changes are positively correlated with tax revenue of the country and also those policies are correlated with budget deficit of the country so the tax policy changes are needed for the country to positively effect on tax revenue and associate with budget deficit.

b) Graphical Analysis

Through the figure 2 it can be seen that the direct tax revenue and indirect tax revenue were higher in the years of tax policy changes in Sri Lanka than no tax policy changes years except 1992, 2004, 2011 and 2012. At the recent two years the government has done tax policy changes but those policy changes has impacted negatively on the direct tax revenue and indirect tax revenue of the Sri Lanka that means the policy changes have deduced the tax revenue in 2011 and 2012. Furthermore, according to the above table it can be clearly seen that in the year of 1991 and 2009 tax policy changes increased the direct tax revenue and indirect tax revenue greatly than other year's tax policy changes of Sri Lanka.

c) Independent Samples t-test.

In this study, t-test utilised to find the significant mean difference between tax policy changes and non-tax policy changes in direct tax revenue, indirect tax revenue and budget deficit.

Tax Policy Changes Vs Direct Tax Revenue

Through the table 3 it can be seen that results of independent samples t-test, there is no significant mean difference in direct tax revenue between in the period of tax policy changes and the period of no tax policy changes of Sri Lanka ($P > 0.05$). Even though there is mean differences in the direct tax revenue between the period of tax policy changes and in the period of no tax policy changes here from the mean value it can be stated that the Sri Lankan government had around 18,300 million LKR higher direct tax revenue in the period of tax policy changes than in the period of no tax policy changes years but which is not statistically significant at 5% level.

Tax Policy Changes Vs Indirect Tax Revenue

According to the table 5 and 6, Results of independent samples t-test, there is no significant mean difference in indirect tax revenue between in the period of tax policy changes and in the period of no tax policy changes of Sri Lanka ($P > 0.05$). However there is the mean differences in the indirect tax revenue between in the period of tax policy changes and in the period of tax policy changes here from the mean value it can be stated that the Sri Lankan government had around LKR 90,000 million higher indirect tax revenue in the period of tax policy changes than in the period of no tax policy changes albeit which is not statistically significant at 5% level.

Tax Policy Changes Vs Budget Deficit

Table 7 and 8 reveals that there is no significant mean difference in budget deficit of Sri Lanka between in the period of tax policy changes and in the period of no tax policy changes of Sri Lanka ($P > 0.05$). Even though there is the mean differences in the budget deficit amount between in the period of tax policy changes and in the period of tax policy changes here from the mean value it can be seen that the Sri Lankan government had around LKR 75,820 million higher budget deficit in the period of tax policy changes than in the period of no tax policy changes however which is not statistically significant at 5% level.

d) Regression Analysis

The purpose of regression analysis is to find out the significant impact or influence of independent variables on dependent variables.

According to the table 9, Model Summary R square (R^2) is 0.496. It means that there is 49.6 percent impact of the independent variable (Tax policy changes) on the dependent variable (Tax revenue). Above table 10 ANOVA in the regression analysis which is significant here P value is 0.000. It is below than the level 0.01 or 1%. Therefore, researcher can conclude that 1% of the impact is in the significant level. Coefficients table in the Regression analysis, Beta value between tax policy changes and tax revenue of Sri Lanka is 0.704 which is significant at 0.01 levels ($P > 0.01$). Finally, In terms of the Regression analysis, researcher can conclude that the tax policy changes are significantly impact on Sri Lankan tax revenue here the tax policy changes impact by 49.6 percent of the tax revenue. Even though from the research model we can be seen the impact of the tax policy changes on tax revenue and budget deficit through the equations. According to the research model (1) $Y = 205{,}500 + 365{,}428 * 1$

Through the above equation it can be clearly found that tax policy changes can increase the tax revenue by LKR 365,428 million which is considerable amount and also statistically significant so the government can increase the tax revenue through the tax policy changes.

According to the table 12, Model Summary R square (R^2) is 0.991. It means that there is a 99.1 percent of the impact of the independent variable (Tax policy changes, direct tax revenue and indirect tax revenue) on the dependent variable (Budget deficit). Above table 13 ANOVA table in the regression analysis, Significant P value is as 0.000. It is lower than the significant level 0.01. Therefore, researcher can conclude that 99.1% of the impact is in the significant level. From the table 14 Coefficients table in the Regression analysis, Beta value between tax policy changes and budget deficit of Sri Lanka is 0.056 which is not significant at 0.05 levels (P >

0.05) however beta value between direct tax revenue and budget deficit is 1.135 which is significant at 1% level ($P < 0.01$). Finally, In terms of the Regression analysis, we can come to the conclusion that the tax policy changes, indirect tax revenue are not significantly impact on Sri Lankan budget deficit on the other hand the direct tax revenue is significantly impact on budget deficit of Sri Lanka.

e) Hypotheses Testing

Summary of the data analysis is given table - 15 through the hypotheses testing.

5. RECOMMENDATION

Based on the study the tax policy changes significantly impact on tax revenue which is in the significant level in Sri Lanka. The direct tax revenue of the Sri Lanka has significantly impact on budget deficit and also the tax policy changes, direct and indirect tax revenue have the significant association with budget deficit of Sri Lanka. There are numerous barriers for the complete implementation of the tax policies and collection of the tax revenue in Sri Lanka such as no more tax compliance, tax evasion, lack of tax knowledge to the citizens, not adequate staffs for tax department, not limited number of inland revenue department offices, political instability, 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. 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.

- Department of inland revenue should try to give tax knowledge to the citizens that it should be given from school level, university level and other higher educational level According to the performance report 2012[20], department of inland revenue, there is approve cadre 2,978 but number in post 2,203 due to that 775 vacancies are in the Department of Inland revenue which is 26 percent on approve cadre. The department of Inland Revenue should take the necessary steps to fulfil the vacancies in the department.
- Presently the department of Inland Revenue has only five offices all over the island here the department tries to increase the offices all over the island if the department opens the branches in all the district of Sri Lanka that will be good.
- Make the tax policy changes according to the country's economic conditions and requirements rather than copy and paste from other country. Indirect taxes of the country conflict application especially VAT, NBT and ESC have more conflict in practical environment it should be considered by the government.

DIRECTION FOR FUTURE RESEARCHES

This research focuses on the tax policy changes, tax revenue and budget deficit, this study only focused the tax policy changes during the period of 1990 to 2012.

- Therefore further researcher can consider the period from the introduction of the taxation in Sri Lanka up to the current period for the analysis which study can bring the vital findings on the topic of the research and also 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 might consider major taxes under the indirect tax revenue.
- From the findings it is clearly understood that there is no significant impact of tax policy changes on tax revenue and budget deficit therefore have to find the impact factors on tax revenue and budget deficit due to that, an important future research direction is to find out the key factors to determine tax revenue and budget deficit of the Sri Lanka.
- The future researches they might consider the same research topic with similar counties as comparative perspective.

6. CONCLUSION

Many countries are 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. All the country has to give much consideration on tax revenue, tax policy changes and tax system of the country. Also the indirect tax revenue in the percentage of gross domestic production is continuously reducing in every year specially last 2011 and 2012 the indirect tax revenue is seriously reducing in the country due to that the country has to give much consideration on the tax revenue

Besides the tax policy changes have impact on tax revenue, budget deficit and the tax policy changes have the significant impact on budget deficit but the tax policy changes have not significant impact on budget deficit of the country due to that the government has to find the more impact factors on budget deficit through the number of research. Even though there is a significant impact of direct tax revenue on budget deficit of the country and there is significant positive association among tax policy changes, direct tax revenue, indirect tax revenue and budget deficit so the government can take the activities to reduce the budget deficit through the effective and efficient system of tax policy changes, direct and indirect tax revenue collection and system in the country. There are so many barriers behind the effective and efficient implementation of the tax policy, collecting tax revenue, having effective tax stem in the county, increasing the budget deficit and continuing budget deficit in the country due to that the government should consider the researcher recommendation to short out the problem and may consider other number of ways to reduce the barriers in the country. Based on the study researcher finally suggests to the government to undertakes the effective actions to have the effective functions of Department of Inland Revenue and to make effective tax policy changes in the specific period rather than each year and tries to take necessary actions to 100 % implementation of tax law and tax policy within the country without any discrimination.

REFERENCES

[1] Lymer, A. and Oats, L. "Taxation: Policy and Practice"16th ed. Birmingham: Fiscal Publications, 2009.

[2] KPMG. "Budget Analysis 2013". Sri Lanka: KPMG, 2012.

[3] Central Bank of Sri Lanka. "Annual Report". Sri Lanka: Central Bank of Sri Lanka. 2010

[4] Shanmugam, S. "Managing self assessment - an appraisal: Tax Nasional". 1st Quarter, 30-32pp. 2003.

[5] Central Bank of Sri Lanka. "Annual Report" Sri Lanka: Central Bank of Sri Lanka. 2012.

[6] Dessai, M.A., Foley, C.F. and Hines, J.R "Foreign Direct Investment in a World of Multiple Tax". Journal of Public Economics, 88, pp 2727-2744, 2004.

[7] Lim, D. "Instability of Government Revenue and Expenditure in Less Developed Countries". World Development, 11(5), pp 447-450, 1983.

[8] Mahdavi S. "The level and composition of tax revenue in developing countries: Evidence from unbalanced panel data". International Review of Economics and Finance 17, pp 607–617, 2008.

[9] Hinrisch H.H. "A general theory of tax structure change during economic development". Harvard Law School International Tax Program Development, 1966.

[10] Eriksen, K. and Fallan, L. "Tax knowledge and attitudes towards taxation: A report on a quasi experiment". Journal of Economic Psychology, 17, pp 387–402, 1996.

[11] McKerchar, M. "Tax complexity and its impact on tax compliance and tax administration in Australia" 2007 IRS Research Conference, June 13 and 14, Georgetown University Law Center, 2007.

[12] Kimura, Y. "Japan's tax administration reform and the self assessment system". Tax administration Asian Development Bank Institute course III, Siem Reap, Cambodia, pp 21-23, 2006.

[13] Marsden, K. "Links between taxes and economic growth". World Bank Staff Working Paper Number 605, the World Bank, Washington, 1983.

[14] Gober J.R. and Burns J.O. "The Relationship between Tax Structures and Economic Indicators". Journal of International Accounting, Auditing & Taxation, vol 6, pp l-24, 1997.

[15] Agbeyegbe, Terence, Stotsky J. G. and Wolde Mariam A. "Trade liberalization,exchange rate changes and tax revenue in sub-Saharan Africa". IMF Working Paper WP/04/178 Washington D.C.: International Monetary Fund, 2004.

[16] Glomm G. and Ravikumar B. "Taxes government spending on education and growth". Review of Economic Dynamics 1, pp 306–325, 1998.

[17] Worlu, C.N. and Emeka, N. "Tax Revenue and

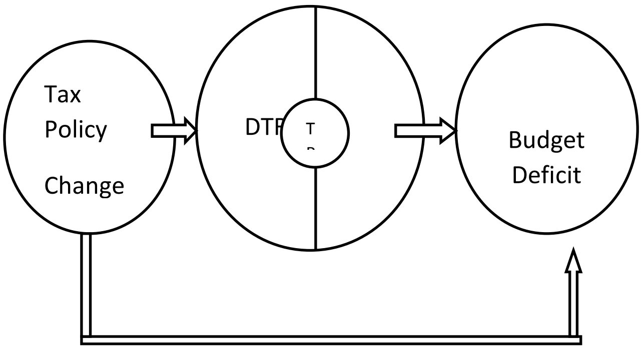
Economic Development in Nigeria: A Macro econometric Approach". Academic Journal of Interdisciplinary Studies Published by MCSER-CEMAS-Sapienza University of Rome, vol 1, pp 2. 2012.

[18] Clotfelter, C. T. "Tax evasion and tax rates: An analysis of individual returns". 1983.

[19] Silvani, C. and Baer, K. "Designing a tax admini stration reform strategy: Experiences and guidelines". Working paper, International Monetary Funds, Washington DC, 1997.

[20] Department of Inland Revenue. "Performance Report". Sri Lanka: Department of Inland Revenue, 2012.

Figures



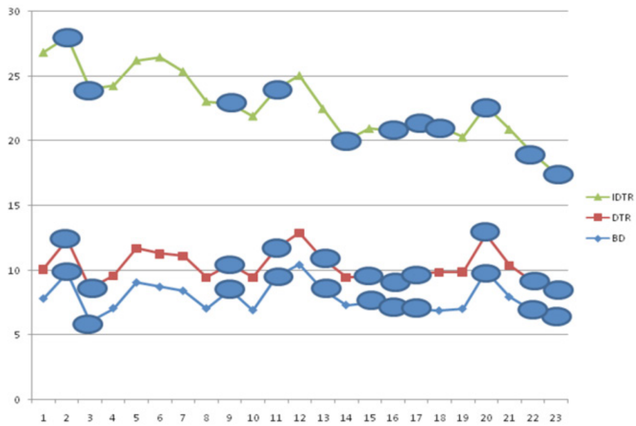
Where:

DTR = Direct tax revenue

ITR = Indirect tax revenue

TR = Tax Revenue

Fig 1: Conceptual Model.



Where:

IDTR : Indirect tax revenue

DTR: Direct tax revenue

BD : Budget deficit

: Indicates Tax policy changes years

Fig 2: Direct, Indirect Tax Revenue and Budget Deficit % in GDP from 1990 to 2012

Tables

Table 1: Operationalisation.

Concept	Variables	Indicators	Measures
Tax Policy Changes	Introduced New Taxes Abolished Existing Taxes Exempt From Tax Tax Rates Changes	Changes in Taxation by Parliament	Tax policy changed years = 1 Tax policy not changed years = 0
Tax Revenue	Direct Tax Indirect Tax	Direct and Indirect Tax Revenue of the country for the year	Tax Revenue= Direct Tax + Indirect Tax
Budget Deficit	The Amount of Budget Deficit	Fiscal Deficit of the country for the year	Total Government Revenue – Total Government Expenditure

Table 2: Correlation Analysis

		Tax Policy Changes	Direct Tax	Indirect Tax	Tax Revenue	Budget Deficit
Tax Policy Changes	Pearson Correlation	1	.663**	.715**	.704**	.681**
	Sig. (2-tailed)		.001	.000	.000	.000
Direct Tax	Pearson Correlation	.663**	1	.988**	.992**	.995**
	Sig. (2-tailed)	.001		.000	.000	.000
Indirect Tax	Pearson Correlation	.715**	.988**	1	.999**	.981**
	Sig. (2-tailed)	.000	.000		.000	.000
Tax Revenue	Pearson Correlation	.704**	.992**	.999**	1	.985**
	Sig. (2-tailed)	.000	.000	.000		.000
Budget Deficit	Pearson Correlation	.681**	.995**	.981**	.985**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

Table 3: Results of Independent samples t-test

T-Test Variables	T-Value	P-Value / Sig	Mean Difference
Values	-.852	.404	-18324.455

Table 4: Results of Group Statistics

	Tax Policy Changes	Mean	Std. Deviation	Std. Error Mean
Direct Tax Revenue	No Policy Changes	47,200	47,056.81	13,584.13
	Tax Policy Changes	65,500	55,971.23	16,875.96

Table 5: Results of Independent samples t-test

T-Test Variables	T-Value	P-Value / Sig	Mean Difference
Values	-1.088	.289	-90,162.39

Table 6: Results of Group Statistics

	Tax Policy Changes	Mean	Std. Deviation	Std. Error Mean
Indirect Tax Revenue	No Policy Changes	208,000	175,542.34	50,674.71
	Tax Policy Changes	298,000	220,993.21	66,631.96

Table 7: Results of Independent samples t-test

t-test variables	t-value	p-value / sig	Mean difference
Values	-1.188	.248	-75,827.90

Table 8: Results of Group Statistics

	Tax Policy Changes	Mean	Std. Deviation	Std. Error Mean
Budget Deficit	No Policy Changes	137,980	1.30498E5	37,671.46
	Tax Policy Changes	213,800	1.74369E5	52,574.12

Source - Secondarydata

Table 9: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.704[a]	.496	.472	192716.430

a. Predictors: (Constant), Tax Policy Changes

Table 10: ANOVA table in the Regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.664E11	1	7.664E11	20.635	.000[a]
	Residual	7.799E11	21	3.714E10		
	Total	1.546E12	22			

a. Predictors: (Constant), Tax Policy Changes

b. Dependent Variable: Tax Revenue

Table 11: Coefficients table in the Regression Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	205,500	55,632.44		.000	1.000
	Tax Policy Changes	365,428	80,444.37	.704	4.543	.000

a. Dependent Variable: Tax Revenue
Source - Secondarydata

Table 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.995[a]	.991	.989	16618.56

a. Predictors: (Constant), Indirect Tax, Tax Policy Changes, Direct Tax

Table 13: ANOVA table in the Regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	5.611E11	3	1.870E11	677.280	.000[a]
	Residual	5.247E9	19	2.762E8		
	Total	5.664E11	22			

a. Predictors: (Constant), Indirect Tax, Tax Policy Changes, Direct Tax

b. Dependent Variable: Budget Deficit

Table 14: Coefficients table in the Regression Analysis

Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	Std. Error	Beta		
2	(Constant)	-1.571E-11	4,797.37		.000	1.000
	Tax Policy Changes	17,609.80	10,751.85	.056	1.638	.118
	Direct Tax	3.611	.485	1.135	7.449	.000
	Indirect Tax	-.135	.123	-.180	-1.102	.284

a. Dependent Variable: Budget Deficit

Source - Secondarydata

Table 15: Hypotheses Testing

NO	**Hypotheses**	**Tools**	**P-Value**	**Results**
H_1	There is a significant relationship between tax policy changes and tax revenue.	Correlation	.000	Accepted
H_2	There is a significant relationship between tax policy changes and budget deficit.	Correlation	.000	Accepted
H_3	There is a significant relationship between direct tax revenue and budget deficit of SriLanka.	Correlation	.000	Accepted
H_4	There is a significant relationship between indirect tax revenue and budget deficit of Sri Lanka.	Correlation	.000	Accepted
H_5	There is a significant mean difference in the level of direct tax revenue between the period of tax policy changes and non-tax policy changes of Sri Lanka.	t-test	.404	Rejected
H_6	There is a significant mean difference in the level of indirect tax revenue between the period of tax policy changes and non-tax policy changes of Sri Lanka.	t-test	.289	Rejected
H_7	There is a significant mean difference in the level of budget deficit between the period of tax policy changes and non-tax policy changes of Sri Lanka.	t-test	.248	Rejected
H_8	There is a significant impact of tax policy changes on tax revenue of Sri Lanka.	Regression	.000	Accepted
H_9	There is a significant impact of tax policy changes on budget deficit of Sri Lanka.	Regression	.118	Rejected
H_{10}	There is a significant impact of direct tax revenue on budget deficit of Sri Lanka.	Regression	.000	Accepted
H_{11}	There is a significant impact of indirect tax revenue on budget deficit of Sri Lanka.	Regression	.284	Rejected