ASSESSMENT ON THE EFFECTS OF TAX REVENUE ON ECONOMIC GROWTH IN TANZANIA

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ABSTRACT

The study conducted to assess if the tax revenue can bring about the growth of the economy in Tanzania, as it has been observed from the World Development Indicators that there is existence of fluctuations of economic growth in Tanzania as the tax revenue increases. Data applied under this study was annual time series data for the period 1997 – 2017, and the Model used is Ordinary least square method (OLS) of multiple regression which has established the relationship between the dependent and independent variables. The findings of the study have shown that the effects of the tax revenue on economic growth is of positive effects that means tax revenue is statistically significant to explain about the growth of the economy on Tanzania. The study recommends that the government of Tanzania should provide education to the citizen, enhance good policies to improve the tax revenue collection and to keep track of tax administration systems to make sure that there is an increase of tax revenue to ensure the growth of the economy.

***Keywords*: Economic Growth, Tax Revenue, Economy**

Introduction

The government has the different means of raising its income such as rent income, government goods and services, investment income, donations and royalties, And the way the government raise and use its revenue has a considerable impact towards the social and economic developments of nations. For most countries worldwide the big percentage of the revenue of the country depends on tax revenues collected rather than other sources of income. Base on the current approximations from the International Centre for Tax and Development the sum of the tax revenues are about more than 80% of the total government income is about half of the countries in the World and above the 50% is about almost every country, the big percentage of income is from the tax. In years of 1990s tax revenues collected across the world were about the 10% of the national income collected by different governments through the tax as a source of revenue, which is sufficient for the government to spend it only in basic functions including maintenance of orders and applying property rights.

In case of U.S tax statistics, the huge changes in taxes show that there is observed changes in the growth of the economy of the U.S. Under that time the economy of the country has experienced unpredictable period, including the Great Depression. A study in the United States by Besley & Persson (2013) was conducted and come up with a picture that about 18 countries with the income tax have more improved as the tax revenue collection become more increased due to different taxation instruments or equipment used during the 20th century and hence the growth of the economy of U.S.

In the case of developing countries like Colombia, tax revenue was increasing through the consumption taxes, which has brought an increase in the growth of the economy, so this shows that there is a significance of having the different forms of tax collection. And income tax becomes an appreciated or the best source of tax revenue which had contributed a lot towards the growth of the country in the 20th Century. In case of Turkey there is a study conducted by Roser (2018) the results showed that most of the higher income countries are having the stable tax revenue levels while in developing countries, tax revenues patterns have been not well understood, but for the case of middle-income countries tax revenue it seems to go up consistently, example the country of Turkey, it has the tax revenue collection of about 13.5% in 2001, the tax revenue where doubled that earned tax revenue. So, for the case of developing countries, the tax revenue collected is low and its trend is not persistently in a significant margin.

In case of Tanzania, has adopted the tax systems and reformed it from time to time the colonial taxing system poll tax (head tax) in the early of 20th century, and the reforms of the tax system that where done during the introduction of sales tax, passing of the new income tax legislation adjustment of the present tax regulation to review the tax sources and rates, elimination of some excise duty to make sure that there is an increase of the growth of the economy though tax revenue collection.

In Tanzania it has been observed from the data collected by the International Monetary Fund (IMF), that there is existence of the fluctuations of the tax revenue rate hence it has been difficult to recognize the effects of tax revenue in economic growth of the country, as it has been observed from the tax revenue statistics by the International Monetary Fund (IMF) as follows; for the year 2010 the economic growth rate was been 6.3% while tax revenue was been 9.9%, in the year 2011 the economic growth rate was been 7.6 % and the tax revenue was decreased to 9.7%, in the year 2012 the economic growth rate was been 4.5% and the tax revenue was raised to 10.4%, in the year 2014 also the economic growth rate was been 6.7% and the tax revenue was increased to 11.3%, for the year 2015 the economic growth rate was been 6.1% and the tax revenue was been declined to 10.4%, for the year 2016 the economic growth rate was been 6.8% and the tax revenue was raised to11.39%, for the year 2017 the economic growth is 6.7% and the tax revenue was increased to 11.8% in the year 2018 the economic growth rate decreased to 5.2% and the tax revenue were also decreased to 11.6%, therefore this tax revenue statistics shows that though of the increase of the tax revenue but the growth of the economy of Tanzania is still fluctuating, this statistics shows that there is a need for investigations to be done to come up with results that if the tax revenue is statistically significant to bring about the growth of the economy of Tanzania or not.

Statement of the Problem

Tax revenue is among the source of raising revenue in Tanzania, which contribute to the big percentage rather than other sources of revenue (Non-tax revenue sources). The government strategies is to raise revenue through making sure that there is availability of good policies for tax impositions in this informal sector and strict rules upon the dishonest traders, also the government of Tanzania has applied various ways for tax revenue collection which includes the indirect taxation (these taxes are charged in consumer goods and services), and direct tax charges such as income tax, business tax and corporate tax. Currently December 10th, 2018 the President of Tanzania Dr. John .P. Magufuli has introduced “Kitambulisho cha wamachinga” and distribute about 670,000 identities in which each region has got 25,000 identities. Whereby each small entrepreneur who invested the capital below Tsh, 4,000,000 are supposed to pay Tsh 20,000 each as tax, this strategy encourages small entrepreneurs to invest as the tax paid at a considerable rate, so this is another strategy that the government of Tanzania has applied to increase tax revenue collection in Tanzania.

In Tanzania there is existences underperformance of tax revenue collections which is caused by various factors such as; the difficulties in tax impositions in informal sectors, smuggling activities, existence of dishonest traders who don’t issue receipts on sales and unawareness among the citizen to claim for electronic receipts when buying goods or services. The study conducted to assess if the tax revenue can bring about the growth of the economy in Tanzania, as it has been observed from the World Development Indicators that there is existence of fluctuations of economic growth in Tanzania as the tax revenue increases.

There were different researches conducted by different researchers to investigate the effects of tax revenue in economic growth, including (Loganathana 2014) has explained that there is positive effect of tax on economic growth, that means the tax revenue can bring the growth of economy in Tanzania, and the approach adopted is that of non-linear causality tests approaches to determine the long-term cointegration and direction of causal relationship between these variables other researchers including (Kho 2018) has explained that there is negative relationship between the tax revenue and economic growth through the application of Auto-Regressive Distribution Lag (ARDL) approach that means the tax revenue cannot bring about the growth of economy in Tanzania.

Also, other researchers conducted at national level consist of several weakness, for instance, the study conducted by (Anyanwu 2015) base on the effect of tax revenue in economic growth but they have used the past years to evaluate the effects but this study was based on the current years from 1997 to 2017 to evaluate the effects of tax revenue in economic growth. Again there is another study that was conducted by the (Olufemi 2018) were by their study was conducted and covered western Africa on the Gulf of Guinea which specifically is Nigeria country but this study has covered the Tanzania context as each country is in different levels of economic growth and therefore the macroeconomic variables have got the different impacts in economic variables depending to the economic status of the country.

Literature Review

2.1 Theoretical Literature Review

Taxation theory

This theory was developed by Adam Smith (1776), he explained that tax is of general benefits to the public. So based on that idea that means the each individual is responsible to contribute tax because at the end benefits are to the all population, though he explained that in order to get the enough tax contributions the government or tax collectors have to take into considerations the following issues which tend to includes the first one the tax should be charged according to their abilities to pay second is they have to consider a specific amount rather than random the third one is payable in specific time or intervals rather than in the way that is suitable to tax contributors the fourth one is in a should be collected in a way that is less expensive and cheap to manage. So according to Adam smith the tax individual should bear should be equally proportional to the ability of the taxpayer. Therefore, based in Adam Smith ideas if the tax collector can base on that they can be in a position to collect enough tax which will favor each individual and being in a position to foster the growth of the economy and not otherwise. Base on the theory of Taxation has suggested the ways that can lead to the increase in amount of tax revenue that the tax collector has to make sure that they take into considerations includes the following that be charged tax should be according to their abilities to pay second is they have to consider a specific amount rather than random the third one is payable in specific time or intervals rather than in the way that is suitable to tax contributors the fourth one is in a should be collected in a way that is less expensive and cheap to manage, therefore if the tax collectors will consider those will leads to the generation of the tax revenue and at the end will leads to the growth of the economy as one among the big source of revenue is tax revenue.

Benefit theory

The theory was developed by the Lindahl's (1960), he explained that the tax levels are determined automatically as the tax contributors pay proportional according to the benefits, they receive from the public services so the more the good public the more the tax contributor will be motivated to pay tax. So the taxpayers who are most benefited with the tax are the ones that will pay more tax.so based in this benefit theory those whose will not be in a position to benefit from the public services they will be reluctant in tax payments and hence will results to underdevelopment and low economic growth as a large percentage of income in the country depends on the tax collection. But those few ones who are in capacity to benefit from the public services they will pay more tax but that will contribute in low percentage towards the growth of the economy compared to the situation that if all they can be in a position to benefit from public services most of them they can be in a position to pay more tax and hence this can foster more the growth of the economy. Based on the theory of benefit the taxpayers are been motivated to pay tax once they receive the benefits from the public as a result of the tax paid, so the tax collector has to make sure that the tax collected is been invested in public goods for the benefits of all the taxpayers this will motivate all taxpayers to pay tax and hence at an end will leads to the increase of the tax revenue and hence the growth of economy as whole.

2.2 Empirical Literature Review

With the evaluation of the different literatures, has shown that different authors have studied and analyzed the relationship between tax revenue and economic growth and the results have shown a negative impact (Ferede & Dahlby 2014) and (Nechaev & Antipina 2016). The study conducted in U.S by Gale (2015) examined the effects of tax revenue on economic growth in united states from the year 1993 – 2013 and found that a rapid economic growth occurred in that period was due to the other non-taxable sources and also this examined on the tax forms and tax administer system which found to be not friendly to the taxpayer and hence the respond of taxpayer is low. Also, a study of Pempetzogloub (2015) examined the effects of tax revenue on economic growth from year 1998 – 2015 found that the aim of U.S. government is to increase the economic growth through taxation.

Another is the study of Samwick (2016) conducted from the year 1990 – 2010 by the use of Vector Error correlation model to investigated if the higher tax rates have the relationship with the growth of the economy and found that both of the marginal tax rate and the capital gains tax rate has no relationship with the GDP growth rate (economic growth rate) of the country.

A study conducted at the United States by Ngoie (2018) investigated the effects of tax revenue on economic growth in united states from the 1999 – 2014. The study found that the corporate taxes are the most harmful to the growth of the economy and in conclusion, the taxes have got the negative correlation with the growth of the economy. Frentz (2014) found that if the tax cuts (reductions on the tax paid on the sales, income, profits) can cause the increase in the investments and expansion of different economic activities and hence will result to the economic growth of the country. A study conducted at Durbin by Kho (2018) investigated the relationship between the tax revenue and economic growth both in the long run and in short-run from the year 1995 – 2015. The results shows that a 1% increase in tax will reduce the rate of economic growth by 0.33%. Another study carried out by the (Ojede & Yamarik 2014), to investigate the relationship exist between the tax revenue and economic growth both in long run and in short-run for 48 state in united states by the use of the error correction model and found that the taxes on the personal income has a positive impact in the economic growth while and corporate taxes have the negative impact on the growth of the economy.

Nevertheless, the study of Siddhartha & Indraneel (2017) investigated the effect of tax revenue in economic growth from the year 1994 – 2014. They found that taxation at different categories of the income distribution has got unrelated impacts on household's motivations or incentives to work, invest and consume so through the use of U.S state-level data and micro-level household tax returns over the last three decades were reducing the income inequality among the low and medium-income households which this leads to the growth of the economy while reducing the income inequality through taxation between the low and median households tend to reduce the economic growth. Bujang, Hakim & Ahmad (2014) investigated on the both developing and developed countries and they do conduct the investigations with the use of the sample 107 developing countries and found out that for the case of developing countries the tax revenue has got impact on the economic growth of the country but for the case of developed countries tax revenue has got no impact on economic growth of the country.

Founded on the empirical literature cited above, that many of the studies were focused effect of tax revenue on economic growth. They come up with different results others suggest that there is a positive impact of tax revenue in economic growth and others have suggested that there is a negative impact of tax revenue in economic growth in Tanzania. However, some of the studies have tried to cover that, but still there is a need of conducting the study again in Tanzania due to the following reasons; first is the existence of dynamic results among the studies, as other studies found the existence of the significant relationship, that means there is positive relationship between the tax revenue and economic growth in Tanzania while other studies prove the other way round. Second, most of these studies were conducted outside Tanzania, as proposed by (Bujang, Hakim & Ahmad 2014) that the impact of tax revenue in economic growth depends on the status of economy in which the country is in (that means for developing countries status like Tanzania and developed countries status their economic growth are been affected by tax revenue differently, hence a researcher conducted the to cover the Tanzania context. And finally, most of these studies used autoregressive distribution lag, two non - linear casualty test and granger causality while this study will use the Ordinary Least square method. Therefore, this study aimed at assessing the effects of tax revenue in the economic growth of Tanzania.

Methodology

The research design applied in this study is descriptive and non - experimental research design. In this research the researcher has applied the Positivism research Paradigms as it is applicable in quantitative research. The study has been carried out in Tanzania context using the macroeconomic variables namely economic growth, tax revenue, government spending, household consumption and capital investment. Under this study, the researcher has used the documents produced by the World Bank, TRA (Tanzania Revenue Authority), Global Economy and Tanzania Data websites which are already produced by the TRA and Economic statistic in the previous financial years. Using descriptive and inferential statistics, this data was quantified and categorized. STATA Version 13 was used to define, sort, and sift through the acquired data before analyzing it. In data analysis, measures of central tendency were utilized in conjunction with significance tests.

Results

4.1 Regression Analysis

The regression analysis was performed after making the variables stationary, to establish whether in the first place there was a linear connection or not between each of the independent variables (tax revenue, capital investment, household consumption and capital investment) and one dependent variable (Gross Domestic Product (GDP)). The regression results of these investigations show that only one independent variable (tax revenue) out of four independent variables is statistically significant in influencing the dependent variable (GDP). The results are presented below;

Table 1: Regression Output

Variables	Coefficients	Standard error	t - Statistic	P>l t l	R^2	Prob >F-Statistic	F – Statistic (4,16)
Tax revenue	0.000828	0.0001412	5.86	0.000	0.7224	0.0008	9.11
Government spending	0.0214043	0.064661	0.33	0.746			
Capital investment	-0.093259	0.0448926	-0.21	0.838			
Household consumption	0.041705	0.0750552	0.63	0.540			

The results of R – Square are 72.24% which is significant to explain about our model. This means the variations in economic growth can be influenced by tax revenue, government spending, capital investment and household consumptions. Therefore, this means the rest which is 27.76% can be explained by other variables. This means the tax revenue, government spending, capital investment and household consumptions can influence the economic growth by 72.24% then the model is useful for predictions. Therefore, strategic policies should be developed to ensure the growth of the economy. The following is the equation that validates relationship and prediction among the dependent and independent variable and therefore jointly significant.

Based on the results the coefficient of the tax revenue is 0.000828 which means there is positive relationship between the tax revenue and economic growth that is one unit increase in tax revenue will lead to the increase in economic growth by 0.000828 and a one-unit decrease in tax revenue will leads to the decrease to the decrease of economic growth. Also, the P-Value of the tax revenue is 0.000 which shows that the tax revenue is statistically significant to explain about the dependent variable economic growth in Tanzania. Other variables, such as government spending, capital investment, and household consumption were statistically insignificant in influencing GDP during the period under consideration.

In order to assess whether that tax revenue, government spending, capital investment and household consumptions can or cannot jointly influence economic growth of Tanzania, the researcher examined the F statistics and P-value results. The findings show that F statistics is 9.11 with the P value of 0.0008 since the P-value is less than 5% significant the researcher rejects the null hypothesis and accept the alternative hypothesis that both tax revenue, government spending, capital investment and household consumptions were jointly significant in influencing economic growth (GDP) of Tanzania.

4.2 Discussion of Findings

Based on the findings from the regression output it reveals that the effects of tax revenue in economic growth in Tanzania context is positive, as the coefficient of tax revenue is positive so that means an increase in one unit of tax revenue will lead to the increase in economic growth and a decrease in tax revenue by one unit will lead to the decrease in economic growth.

However the study is relevant to the findings of other researchers like the study conducted by the Loganathana (2014) has explained that there is positive effect of tax on economic growth, the approach adopted is that of non-linear causality tests approaches to determine the long-term cointegration and direction of causal relationship between these variables that means the tax revenue can bring the growth of economy in Tanzania so this confirms to the findings of this study.

Another study that conform to the findings of this study is that of Frentz (2014) he did investigations on the tax policy changes concerning the tax cuts and found that, tax cuts can results to the increase in investment and expansion of activities hence results to the growth of the economic growth of the country which also tends to confirm to the findings of the study, Also another investigation done by (Gashi, Asllani & Boqolli 2018) investigated on the issues of the reductions of tax rate in consumption for basic products and increase in tax rate on luxury products has a positive effect on the growth of economy which conform to the findings of this study.

Also there is another studies conducted which are not confirming to the findings of this study includes the study conducted by (Stoilova 2017) who investigated and found that the tax revenue which generated from the income tax is charged from the income generated by the entities or individual and the economic growth which it's a source of revenue to the government and hence the reduction in the level of economic growth. So, based on this, there is a negative relationship between the tax revenue and economic growth which are not confirmed to the findings of this study. Another study conducted by (Asllani, Statovci, 2018 & Gasteratos et al. 2016) they did investigations on corporate income taxes and they found that it has got the negative impact on the economic growth of the country which these results are not confirming to the findings of this study.

Therefore, the above empirical shows the investigations which conform to the findings of the study that they support this study that the tax revenue has got positive impact to the growth of the economy but also there are other investigations which shows that there are negative effects of tax revenue in economic growth. So, based on the findings of the study the government has to make sure that it structures the new strategies that will influence the increase in tax revenue collection so that to foster the growth of the economy, a good example currently December 2018, the President of Tanzania has introduced the strategy of "Kitambulisho cha wamachinga" this is the good strategy that will lead to the increase in tax revenue collected in our country, therefore the strategy of charging tax according to earnings of the people. Hence the government has to make the new strategies that will foster the growth of the economy.

Conclusion and Recommendations

The findings of the study have clearly shown that the effects of the tax revenue in economic growth are of positive effects that mean one unit increased in tax revenue will lead to the increase in growth of the economy and if the tax revenue decreased by one unit also economic growth will decrease. This study shows that the variables government spending, household consumption and capital investment are statistically insignificant to explain the growth of the economy as it revealed also in the regression output that its P-values are above 5% level of significance. This result suggested that the fall in economic growth is due to the fall in tax revenue which has been caused by the structure of the tax collection system, the approach and instruments for tax collection all this has discouraged the taxpayers to pay tax at an end this leads to the reduction of the tax revenue which impacts the growth of the economy negatively. Therefore, the improvement of the tax revenue through the improvement of the tax collection means and the structure of the tax collection will lead to an increase in tax revenue and hence the growth of the economy. Based on the findings the researcher recommends the following that: The government of Tanzania should provide education to the citizen so that to know the importance of paying tax which could result in the increase of the tax revenue collected and hence the growth of the economy. The government must enhance good policies to improve the tax revenue collection to ensure the growth of the economy. The government should establish supportive incentives to the taxpayers accordingly to their environment of working that would encourage them to pay tax so that to increase the revenue collected and hence the growth of the economy. The government must make sure that it keeps track of tax administration systems to make sure that there is the achievement of the growth of the economy. Data used for this study was time series data which cannot tell us what is happening now (the current impact of tax revenue in economic growth) because the data used to forecast are not up to the currently year of 2019, so another researcher may use the panel data cross-sectional data to carry out the study.

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