## TAXATION AND ECONOMIC GROWTH IN UGANDA

BY

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BEC/31440/102/DU

# A RESEARCH DISSERTATIONSUBMITTED TO THE COLLEGE OF ECONOMICS

## AND MANAGEMENT IN PARTIAL FULFILLMENT OF THE

# **REQUIREMENTS FOR THE AWARD OF BACHELOR'S**

## DEGREE IN ECONOMICS OF KAMPALA

### INTERNATIONAL

## UNIVERSITY

JUNE, 2013

#### DECLARATION

I, TABU GLORIA, hereby declare that this proposal is my original work as a result of my own efforts and has never been submitted before to any other university or institution of higher learning for award of a Degree. Accept the few references used with which acknowledgement has been dully made.

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Morto Signature 15/06/2013

Tabu Gloria

Date

#### APPROVAL

This is to certify that this research proposal has been done under my supervision and submitted to the college of Economics and Management, Kampala International University, in partial fulfillment of the requirements for the award of a Bachelor's degree in Economics with my approval as university supervisor.

Signature.....

Ms. Nakawungu Faridah

Date. 20/06/20/3

SUPERVISOR

#### **DEDICATION**

This piece of work is heartily dedicated to my beloved parents Mr. Timothy Taban Gale ,Mrs. Inna cicilia, my siblings Abe Emmanuel, Diko Jacob, kiden Elizabeth, Amalia Stella, Poni Phiona, my niece kama-erera Jemmimah, My friends Gloria Amaniyo,Tumalu Manuela, Bashir Swaibu, Stephen Wambua ,Abdifatah Adan Egeh Who helped me financially, morally and spiritually in the completion of this work.

#### ACKNOWLEDGEMENT

I acknowledge the lord almighty GOD the gift of life and for seeing me through my studies and I say Ebenezer for this far he has brought me. Had it not been for his Grace that is sufficient enough, I don't think I would have made it. I further acknowledge my friends like Gloria, Bashir and Steve for the love they showed me during my struggles in school, God bless you all.

I also acknowledge my beloved family especially the Gale family for their constant encouragement and making me to believe that where there is a will, there will always be a way. Thanks a lot for your advices, prayers and always being there for me during all my difficult times in the university

Finally, I acknowledge my supervisor madam Nakawungu Faridah for the guidance during this research, my unit head Mr. Fred Wakiku, my head of department Pr. Godwin Sempebwa B. and all the lecturers of school of Economics and Applied Statistics for being there whenever I needed them, I pray that God will reward you all for the good Work you have done.

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#### ABSTRACT

This research report set out to establish the relationship between Tax Rates and economic growth (measured by GDP) in Uganda (2000-2010). The objectives of the study were; to establish the trend of Tax Rates in Uganda(2000-2010), to establish the trend of GDP growth rate of Uganda(2000-2010) ,to investigate the relationship between Tax Rates and GDP growth in Uganda (2000-2010).

The study employed time series analysis such Correlation analysis, regression analysis mechanisms. The trend of Tax Rates had shown a general increase and GDP growth rate had shown a cyclical fluctuation for the period under study. A sample size of ten years was used(2000-2010), The data analysed was got from World bank and international monitory fund (IMF) for the period 2000-2010.

Using the correlation, regression approach, there was a weak positive correlation between Tax Rates and GDP growth(r=0.3234), there was also no relationship between Tax Rates and GDP growth at 0.05 level of significance.

In conclusion, there is no relationship between Tax Rates and growth rate in Uganda which agreed with Wayne (4992), Blanker et al (2005), who carried out study on Tax Rates and GDP growth rate and found no relationship. This implies that the tax play a small role in economic growth of Uganda.

The researcher recommends the government to implement tax policies, which favors every one; this can encourage people to invest since investment is the source of economic growth. On the economic growth issues the researcher recommends the strengthening of existing policies in connection to economic growth such as export promotion policies, import substitution policies, market expansion and infrastructure. This will help to regulate on Economic growth in Uganda.

#### CHAPTER ONE

#### INTRODUCTION

#### **1.0 Introduction**

This chapter presents and describes the background of the study, problem of the research, purpose and objectives of this study, research question, and area of the study and significance of the study and what will be the outcome of the study and limitation.

#### 1.1 Background of the study

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The most common measures of economic growth are income, employment, investment and plant expansions. Studies done before 1980 generally used aggregate employment or employment growth rates and analyzed a single period of cross-sectional data across regions or states (Wasylenko, 1997). It should however be noted that job stability in the economy is not necessarily an indicator of stagnation. However, researchers' pre-occupation with employment reflected the importance that policy makers attached to jobs and job growth in their regions.

Governments use taxation to encourage or discourage certain economic decisions. For example, reduction in taxable personal (or household) income by the amount paid as interest on home mortgage loans results in greater construction activity, and generates more jobs. See also taxation principles. Taxation can also refer to taxes as an abstract concept, an actual dollar amount of tax that has been levied or the material funds that have been received as taxes. Although all of these definitions are technically correct, the one listed above is the most common. Taxation is one of the primary powers of government over the people.

The idea that taxes affect economic growth has become politically contentious and the subject of much debate in the press and among advocacy groups. That is in part because there are competing theories about what drives economic growth. Some subscribe to Keynesian, demand-side factors, others Neo-classical, supply-side factors, while yet others subscribe to some mixture of the two or something entirely unique. The facts, historical and geographical variation in key parameters for example, should shed light on the debate. However, the economy is sufficiently complex that virtually any theory can find some support in the data.

For instance, the Congressional Research Service (CRS) has found support for the theory that taxes have no effect on economic growth by looking at the U.S. experience since World War II and the dramatic variation in the statutory top marginal rate on individual income. They find the fastest economic growth occurred in the I 950s when the top rate was more than ninety percent. However, their study ignores the most basic problems with this sort of statistical analysis, including: the variation in the tax base to which the individual income tax applies; the variation in other taxes particularly the corporate tax; the short term versus long-term effects of tax policy; and reverse causality, whereby economic growth affects tax rates.

In fact, although correlation is not causation, when you compare economic growth in periods with declining tax rates versus periods with high tax rates, there seems to be evidence that tax cuts might hurt growth. But we'll leave that possibility for another day. One thing that tax cuts do unequivocally do at least tax cuts for the highest earners is increase economic inequality. Given that economic inequality is one of the biggest problems we face in this country right now, this conclusion is very important (Wayne, 1994).

Following the Mwesigwa tax cuts in the early 1960s, the economy grew by nearly five percent per year. In the seven years following the 1981 tax cuts, the economy grew by nearly four percent per year while real federal revenues rose by 26 percent. This approach does not try to perform the "growth accounting" exercise detailed in the theoretical section, but asks simply whether there are discernible differences in GDP growth following tax cuts. We consider the latter two tax reforms, which shows real GDP growth rates (both total and per capita) in Uganda between 2000 and 2013 in the bottom panel, with the relevant tax series graphed in the upper two panels. To smooth out year to-year volatility in GDP growth rates, we present three-year moving averages of GDP growth rates in the bottom panel, both for aggregate growth rates and for per capita growth rates (Muhumuza, 1996).

#### 1.2 Statement of the problem

The tax system in Uganda has been one of the victims of numerous economic and political crises that rocked the country in the 1970s and 1980s. Since 1987 the government has undertaken a number of reform measures aimed at improving the performance of tax revenue. In 1991 the government set up the Uganda Revenue Authority to monitor and implement the tax reform measures. These measures include partial removal of some tax exemptions and inclusion of

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others, narrowing tax rate bands, reduction of some tax rates in addition to increasing others, and introduction of new forms of taxes which are easy to administer (Muhumuza, 1996).

In most developed countries the level of taxes has risen steadily from about 5-10% of GDP to currently 20-30% of GDP (Dalibor, 2005). In Uganda, significant increases in tax revenue have been noticed since the establishment of the Uganda Revenue Authority. Such significant increases in taxation raise serious questions about the effect they have had upon economic growth. Through its effect on return to investment, savings and even expected profitability of research and development, taxation can affect the choices made and ultimately the rate of growth. Thus, only focusing on the merits of different spending programmes or the relative efficiency with which the private and public sectors provide services cannot answer all questions about the appropriate size of government spending (Graeme, 2003). How public spending is financed is also relevant. But current studies on the influence of fiscal policies on growth have mainly concentrated on effects of government consumption spending and ignored the effects of distortionary taxation. There is therefore need to trace the effects of taxation upon the individual decision making that lies behind the processes through which economic growth is generated. It is against this background that the study attempt to find out how taxation in Uganda has affected the rate of economic growth, covering the period 2000 – 2010.

#### 1.3 Objectives

#### 1.3.1 General Objective

The study was to establish the effects of taxation on economic growth.

#### 1.3.2 Specific Objectives

- i. To determine the level of taxation in Uganda.
- ii. To find out the level of economic growth in Uganda.
- iii. To establish the relationship between taxation and economic growth in Uganda.

#### 1.4 Research questions

- i. What is the level of taxation in Uganda?
- ii. What is the level of economic growth in Uganda?
- iii. What is the relationship between taxation and economic growth in Uganda?

#### 1.5 Scope of the Study

#### 1.5.1 Geographical study

#### This study was conducted in Uganda

#### 1.5.2 Content scope

This study included the level of taxation, the level of economic growth and the relationship between taxation and economic growth.

#### 1.5.3 Time scope

The study covered the period of 5 months ( $2^{nd}$  Feb and  $2^{rd}$  June 2013). The period of time was be used to collect data for analysis.

#### 1.6 The significance of the study

The government policy / makers; the government can base on this findings of the study to formulate and implement tax policies, Economic growth policies, such policies can be a platform for the sustained economic growth.

The study is useful to academia, especially researchers who may be interested in carrying out empirical studies on Tax rate and economic growth rate.

This study is useful to an individual in that it helps to understand how the Tax can lead to economic growth.

#### 1.7 Operational definition of Key terms

**Taxation** is a means by which governments finance their expenditure by imposing charges on citizens and corporate entities. Governments use taxation to encourage or discourage certain economic decisions. For example, reduction in taxable personal (or household) income by the amount paid as interest on home mortgage loans results in greater construction activity, and generates more jobs.

**Economic growth** is the increase in the amount of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP. Growth is usually calculated in real terms, i.e. inflation-adjusted terms, in order to obviate the distorting effect of inflation on the price of the goods produced.

**Influence is** the act or power of producing an effect without apparent exertion of force or direct exercise of command and corrupt interference with authority for personal gain.

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#### CHAPTER TWO

#### LITERATURE REVIEW

#### 2.0 Introduction

#### 2.1 Theoretical perspective

#### 2.1.2 Ability-to-pay approach

The ability-to-pay approach treats government revenue and expenditures separately. Taxes are based on taxpayers' ability to pay; there is no quid pro quo. Taxes paid are seen as a sacrifice by taxpayers, which raise the issues of what the sacrifice of each taxpayer should be and how it should be measured.

Equal sacrifice: The total loss of utility as a result of taxation should be equal for all taxpayers (the rich will be taxed more heavily than the poor), Equal proportional sacrifice: The proportional loss of utility as a result of taxation should be equal for all taxpayers, Equal marginal sacrifice: The instantaneous loss of utility (as measured by the derivative of the utility function) as a result of taxation should be equal for all taxpayers. This will entail the least aggregate sacrifice (the total sacrifice will be the least)

Tax burden is shared equally between the tax payers. This validation can be seen by the model as a result of taxation should be equal for all taxpayers. This will entail the least aggregate sacrifice (the total sacrifice will be the least). This is the main reason why the researcher is basing the study on this model. Myles, G. D. (2000)

## 2.2 The level and Role of taxation in Uganda

Nuwamanya (2000) looks at macro-economic stability as having two objectives-i.e. to achieve domestic price stability and to seek to balance the external payments account. These objectives are achieved by a combination of short term policies including fiscal policy changes and monetary policy changes that lead to changes in the exchange rate, wages, salaries, etc. Fiscal policy is said to be the anchor for macro stability. In fiscal policy analysis, taxes are used to finance infrastructural development since high productivity from private economic activities is positively related to a well established infrastructural base. Taxes could only be a disincentive when they are used for income re-distribution.

The potential role of the tax system is to help government achieve desired social and economic objectives. Taxation provides government with money needed to purchase goods and services it requires to carry out its functions. However, the centralized assignment of tax revenues combined with recent tendencies to decentralize increasingly important expenditures in developing countries places increasing strain on inter-governmental fiscal transfers. In some instances this has also facilitated irresponsible behavior by sub-national governments and thus social goods and services have not been provided efficiently. Bird (1992) suggests two alternatives to taxation in raising funds for the government. Firstly, he suggests that government can commandeer resources directly i.e. can obtain command over resources. This method has, however, been rejected in peacetime market economies as being capricious and inefficient.

Secondly, the government can simply print money. This however results into inflation, owing to such bottlenecks as scarce foreign exchange and fragmented markets that reduce responsiveness of supplies to price signals. Inflation is a regressive tax that adversely affects poorer groups of the economy. Without employing any of the two alternatives, Bird (1999) suggests two potentially promising ways to improve the tax system of a country. Firstly, the government can develop a satisfactory revenue base for established regional governments (regional tiers for the case of Uganda). For instance, regional Value Added Tax rates can be established. Secondly, a single Business Value Tax can replace the various unsatisfactory state and local taxes on business that exist in most LDCs. Though the first approach is motivated by the desire to provide more adequate own revenues to regional governments, the second is aimed primarily at improving the allocative efficiency of sub-national revenue systems.

#### 2.3 The level of economic growth

Blankenau & Simpson (2005) indicate that tax revenue can be increased from the supply side through deliberate economic measures aimed at encouraging production. Some of these policies call for increased government expenditure such that if tax revenues are not responsive to GDP growth, the deficit is bound to persist. This increases annual budgetary allocations and expenditure growth at a rate higher than that of GDP and worse still than that of tax collections. The major complaint has been that of structural factors arising from size of tax base which have been portrayed as severely affecting any country's capability to finance its rehabilitation and

development plans. This literature however fails to establish the long run causality between different tax components and economic growth.

Engen and Skinner (1996) argue that taxation can affect economic growth in five ways. First, higher taxes can discourage the investment rate through high statutory tax rates or corporate and individual income, high effective capital gains tax rates and low depreciation allowances. Second, taxes discourage labour force participation or distort occupational choices and can also affect the choice for acquisition of skills, education and training. Third, tax policy has the potential to discourage productivity growth by attenuating research & development and the development of venture capital for hi-tech industries. Fourth, tax policy can influence the marginal productivity of capital by channeling investment from heavily taxed sectors to more lightly taxed sectors with lower overall productivity. Fifth, heavy taxation on labour supply can distort the efficient use of human capital by discouraging workers from employment in sectors with high social productivity but a heavy tax burden.

Zeng and Zhang (2001) conclude that income taxes create dis-incentives for investment and work by reducing the after-tax rates of return on capital and labour while consumption taxes create dis-incentives for work by reducing the price of leisure relative to consumption. Although taxes on labour income and consumption change the labour-leisure choice and hence the size of the effective labour force, they do not influence long run growth in a non-scale Research and Development model. This is because the scale effect of changes in the size of the effective labour is nullified by product proliferation. A capital income tax is harmful to growth by discouraging saving and capital investment.

Dalibor (2005) argues that taxation represents a coercive transfer of property from one group of individuals (tax payers) to another (government). As such, taxation is not and cannot conceivably be made neutral to the market. He further asserts that levying labour income tax can have either of two effects. On the one hand, as the relative price of leisure in terms of other goods decreases, the individual will tend to consume more of leisure and thus work less. On the other hand, the fact that the individual is actually impoverished by the tax might force him / her to work more so as to try to keep up with his precedent level of utility. Existence of the corporate income tax decreases the firm's production by reducing the volume of investment. Consumption taxation may shift the tax burden forward to consumers or backward to owners of factors of production

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depending on the elasticities of their respective demand and supply curves. In general, where as income taxes lead to a heavier taxation of deferred consumption relative to present consumption, a time uniform consumption tax imposes the same burden on both current and future consumption. It is worth noting that the very purpose of taxation is to transfer property from an individual to someone else and make possible a different use of resources than that which would otherwise take place.

Wayne (1994) discusses tax reform in the normative framework provided by the theory of optimal taxation. This theory attempts to account for the impact of tax reform on tax-induced losses in the efficiency of resource allocation and on vertical equity norms. He asserts that despite the flirtation with the undeniable logic of optimal tax theory, many recent tax reforms have focused on achieving broader-based taxation at more uniform rates, which is in direct violation of the dictates of optimal taxation. Unlike earlier pleas for broader-based taxation, which called for greater progressiveness, the current appeals are for lower marginal tax rates and reductions in the level of tax reduced distortions that are prompted by high rates. In this manner, lessons of optimal tax theory have infused recent tax reform efforts with a new respect for economic efficiency. Perhaps the main difference between optimal and uniform taxation is not in their choice of objectives but rather in their method of realizing the goal of economic efficiency. Whereas proponents of optimal taxation aspire to attain the most efficient tax structure, those of uniform taxation have embraced the more limited objective of improving the efficiency of taxation.

Wasylenko (1997) makes a strong analysis of the effect of taxation on foreign direct investment. He says that investors from countries that use territorial tax systems are only sensitive to host country taxes. Where home countries use residential tax systems, investors are subject to taxes from both host and home countries but receive a tax credit in the home country for direct taxes paid in the host country. In this case, host country taxes would not matter if they were lower than home country taxes but would affect location of the investment if they were higher. He also notes that tax reforms affect types of jobs created. Generally, reductions in capital or business taxes would attract more capital-intensive firms, which may pay higher wages and benefit those with more education and better job skills. From this literature, it is noted that the basic aspect of the fiscal environment of any country is the quality and quantity of services provided by

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government. With the government providing services at the level residents and firms demand, there will be better methods of taxation that can be employed. It thus follows that taxes will still influence economic behaviour at the margin. Higher taxes that do not buy predominantly more or better services are more likely to deter firms from specific locations. From economic literature, it is however asserted that taxes can only play a significant role in firm location and expansion if there are significant differences in state tax systems.

Nancy and Wells (2001) found that the availability and non-availability of tax incentives failed to significantly affect aggregate investment coming into the country. Their results show that it did not even appear that the ending of tax incentives caused investors to shift to countries where governments offered incentives. In a similar study, Morisset and Neda (2001) conclude that location choices for "export platform" FDIs are more likely to be affected by tax incentives than are those for FDIs meant primarily to serve local domestic markets. Incentives might be ineffective as determinants of location when home country policies offset tax savings created by the incentive. Investors will usually go to a country if its market, climate and policies are attractive, whether it offers tax holidays or not.

To shape prudent and transparent fiscal policies, LDCs have of recent focused attention on the usefulness of tax expenditures. A tax expenditure is a government fiscal policy that goes unnoticed because it is hidden in the form of revenue foregone and does not appear explicitly as spending. But these countries have limited understanding of and experience with applying tax expenditures and thus confront not only revenue losses higher than anticipated but also the erosion of their weak tax bases. Polackova, et al (2004) argued that tax expenditures encourage private sector participation in economic and social programmes, they promote private decision making and reduce the need for close government supervision of spending. However, some tax expenditures are insufficient to override underlying economic forces and are offset by other domestic tax provisions. The trio proclaims that tax expenditure schemes are a response to various interest groups rather than to actual needs, tend to be regressive in modifying tax burdens. Transitional economies fail to benefit from tax expenditures since inadequate reporting and accounting practices often complicate an assessment of such policies and programmes. In these economies, the expenditures are seldom exposed to extensive analysis and scrutiny, which are

prerequisites for evaluating the cost, efficiency and equity impact of tax expenditures. It is important for transition economies to ensure fiscal transparency and to perform systematic fiscal analysis when implementing tax expenditures.

Simon and Nobes (1992) identify three economic functions of the government i.e. to overcome inefficiencies of the market system; to redistribute income and wealth in order to move towards the distribution that society considers equitable; and to smooth out cyclical fluctuations in the economy to ensure a high level of employment and price stability. Taxation has a role to play in each of these functions. To control market failure, the government raises taxes to erect and maintain pure public goods, purchase merit goods and also to reduce de-merit goods. Revenue from taxes can be used in the production of goods with external benefits while a tax can be imposed to reduce production of goods with external costs. The tax system of any country is well known to be a powerful tool for influencing the level of activity i.e. stabilize the economy and is also used to influence the distribution of income and wealth through resource rechanneling. However, for taxation to have a proper role in these economic functions there is need to strike a balance between the tax system and economic efficiency. Taxation carries with itself three categories of burdens i.e. compliance costs, administrative costs and the excess burden of e taxation. Compliance costs are those incurred by the private sector in complying or not complying with the requirements of the tax system; administrative costs refer to the burden exerted to the public sector while administering taxes; and the excess burden arises from the distortion of consumer choice between goods that are actually produced.

Ingrid and Soretz (2002) analysed the impact of income and consumption taxes within a model of stochastic endogenous growth with congestion. It is theoretically known that the optimal amount of governmental inputs diminishes with uncertainity and that the level of optimal financing depends on the relation between degrees of rivalry and relative risk aversion. In stochastic models, recommendations usually depend on the characteristics of uncertainity i.e. growth effects of fiscal policy depend crucially on the assumptions of risk and the degree of congestion in the economy. In essence, it has been established that in the presence of congestion a distortionary income tax, for instance, may internalize the negative external effect that goes along with increasing individual production. On the contrary, in case of no congestion, such a distortionary tax would cause a welfare loss. In their analysis, the duo shows that congestion

influences the marginal product of capital and individuals would then have too great an incentive to accumulate capital. They also conclude that a comparison of optimal and expected growth

rates leads to a relation between the optimal tax rates on deterministic and stochastic income. It has been theoretically and empirically established that for optimal fiscal policies, a rise in the tax on deterministic income may be offset by a decrease or increase in the tax rate on risky income depending on the degree of risk aversion and of congestion.

#### 2.4 The relationship between taxation and economic growth

With tax competition countries worldwide are reforming their tax systems to become more competitive. In order to design desirable tax systems information about different taxes' harmfulness is of great importance. More recently studies have turned to investigate the structure of taxation and economic growth. For instance, a few papers have examined the link between tax structure, based on tax measures from tax revenues, and economic growth (e.g., Widmalm (2001), Arnold (2008), and OECD (2010)). The results from these studies are mixed and, hence, hard to draw policy implications from. Moreover, a shortcoming of these studies is that they all use backward looking average tax measures based on tax revenues.

In addition, Lee & Gordon (2005) analyze whether taxation of household versus corporate income differ in how they influence economic growth. Unlike above mentioned studies using tax revenue based tax measures, Lee & Gordon use top statutory tax rates on corporate and personal income to measure the tax effect. They do this on a sample of 70 countries during the time period 1970 to 1997. Results show a significant negative correlation between statutory corporate tax rates and growth but no significant correlation between top statutory personal income tax rates and growth. When they restrict the sample, by including an OECD-dummy, the corporate tax rate effect on growth for the OECD countries becomes nearly zero, suggesting that the corporate taxation is less harmful to growth in more developed countries than in less developed countries.

Ayoki, et al (2005) investigated the link between tax reforms and revenue mobilization in Uganda. For any tax system to be revenue enhancing, the yield of individual taxes should be responsive to changes in national income and the predominant taxes are then those with a highly elastic yield with respect to national income. Their results show that reforms had different

impacts on different taxes. In effect, reforms had positive impact on direct taxes and VAT/sales tax as evidenced by the increase in the tax-to-income elasticity index i.e. 1.4 for direct taxes and 0.321 for VAT/sales tax. However, the revenue yield for import duties deteriorated so much after the reforms as its tax-to-income index declined by 0.9. The smaller impact on indirect taxes could have been due to high evasion of indirect taxes, increased share of exempt and zero-rated imports to total imports, remissions and a decline in the real value of imports. Though with such improvement, further analysis showed that the yield of the overall tax system was inelastic with respect to national income, and actually declined during the post-reform period. There was a huge gap between the tax-to-base and base-to-tax elasticity indexes indicating that potential revenues in the public lay untaxed. Such scenario can be rectified by increasing investment in the country and deepening the economic base.

#### CHAPTER THREE

#### **RESEARCH METHODLOGY**

#### 3.1 Introduction

This chapter gives the methodology employed in the study, involving a discussion of data collection techniques and data analysis. The study covered Uganda with time series rather than cross-sectional data being used. Data relating to revenues from different tax components, investment expenditure, labour and GDP was collected for the years 2000 -2010.

#### 3.1 Research Design

The study will be conducted using descriptive correlation design. Descriptive studies are nonexperimental researches that describe the characteristics of a particular individual, or of a group. It deals with the relationship between variables, testing of hypothesis and development of generalizations and use of theories that have universal validity.

#### **3.2 Research Population**

This will be made up of records of taxation and economic growth. The records will be found in annual and monthly reports of between 2000-2010, that are found in Uganda Revenue Authority.

#### 3.3 Sample size

The records covered a sample size of ten years (from 2000-2010). This year's will be picked because they have the latest information of on taxation.

#### 3.4 Sampling Procedure

The study used cluster purposive sampling procedures by considering ten years since they are the most recent years. This would be used because the research looks at specific data.

#### 3.5 Area of the study

The study is conducted in Uganda.

#### 3.6 Methods of Data collections

The study will employ the following data collection procedures. The data will be got from published information from 2000 to 2010.

#### 3.6.1 Secondary Data

This will be obtained through the use of text books and other related materials of outstanding scholars such as published, magazines, written data sources including published and unpublished documents, agency reports, internet sources all of which was referred to give more light on the the effect of taxation on a country's development.

#### 3.7 Validity and Reliability of the Instrument

Validity and reliability of the research instruments concerns the extent to which the research instrument yields the same results. The construct and criterion validity of the accounting information system and decision making questionnaire will be empirically proved by experts which means it is standardized. Content validity index ensured by subjecting the researcher devised questionnaires on effect of taxation on economic growth of a country to judgment by the content experts.

#### 3.8 Data Analysis

The frequency and percentage distribution will be used to determine the demographic characteristics of the respondents. The mean and standard deviations will be applied for the extent of accounting information system, and the level of management. Pearson's linear correlation coefficient will be used to determine the relationship between the extent of accounting information system and management of decision making. In organizing extract meaningful information from data collected during interview sessions, administration of questionnaires, and observations to ease the process of data analysis. The data collected will be analyzed in the form of descriptive statistical method including the use of tables, bar graphs, tables, pie charts, and percentages.

#### 3.9 Data Gathering Procedures

An introduction letter will be obtained from the Economics and management of Kampala International University for the researcher to solicit approval to conduct the study from Uganda Revenue Authority.

#### **3.10 Ethical Considerations**

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In order to ensure confidentiality of the information provided by relevant authority and to ascertain the practice of ethics in this study, the following activities will be implemented by the researcher:

- 1. Acknowledged the authors quoted in this study and the author of the standardized instrument through citations and referencing.
- 2. Presenting the findings in a generalized manner.

#### **CHAPTER FOUR**

#### PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

Data was presented using figure, graphs based on the research objectives and the corresponding research questions, testing the hypothesis and for implication of the findings. (i) To establish the trend of Taxation Rate in Uganda (2000 to 2010), (ii) To establish the trend of GDP growth Rate in Uganda (2000 to 2010), (iii)To investigate the relationship between Tax Rate and GDP growth in Uganda (2000 to 2010).

#### 4.1 The Trend of the Tax Rate of Uganda (2000-2010)

Objective one was to show the trend of Tax Rate in Uganda (2000-2010).Under this; the researcher used the line graph as can be seen below.

Figure 2: Trend of the Tax Rate of Uganda (2000-2010)



#### Source:Reseacher (2013)

There is genral increase in Tax rate in Uganda over the period under study ,The tax then increases sharply in 2009.the regression model is Tax Rate=9.32+0.4085Time where Time represent years.This implies that Tax rate when time is zero is 9.32 and a unit change in time in one year lead to a tax rate of 0.4085.

#### 4.2 The trend of the GDP growth rate in Uganda (2000-2010)

Objective two was to show the level of trend of GDP growth rate in Uganda. Under this, the researcher used line graph as can be seen below.





#### Source:Researcher(2013)

GDP growth rate has shown fluctuation over the period under study, this fulctuation is due to other factors which determine GDP growth apart from tax. This fluctuation could be low level of export ,low level of fluction among others. The regression model is GDP growth rate=5.56+0.219Time where time resent years. This implies that GDP growth without time is 5.56 and a unit change in time in one year lead to a GDP growth by 0.219 percent.

#### 4.3 The relationship between Tax rate and GDP growth rate in Uganda (2000-2010)

Objective three was to investigate the relationship between Tax rate and GDP growth rate in Uganda, the researcher used scatter plot graph, correlation analysis, regression analysis as can be seen observed.

#### A scatter plot of Tax rate against GDP growth in Uganda (2000-2010)

To show the relationship between Tax Rate and Gross Domestic Product in Uganda, the researcher used scatter plot as can be seen below.



Figure 4: A scatter plot of Tax Rate and Gross Domestic Product (GDP) in Uganda

#### Source: Researcher (2013)

The relationships between Tax rates tend to be concentrated in one place. Most of the points are close to each other hence implying a weak correlation. The regression model is GDP growth rate=0.428+1.84(Tax Rate) this implies that the GDP growth rate when time is zero is 0.428 and a unit change in Tax rate lead to an increase in GDP growth rate by 1.84 percent.

#### 4.3.1 Correlations analysis of import and GDP growth of Uganda

The researcher used Pearson's correlation coefficient to establish the strength of relationship between Tax Rate and GDP growth in Uganda.

Table 1: Correlation of Tax Kate and GDP growth Kate in Uganda (0.05)	)
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Variable	<b>R-Value</b>	Sig-value	Interpretation	Decision
correlate				
Tax Rate verse	0.3234	0.3234	There is no	Accept the null
GDP growth			relationship	hypothesis

Source: Researcher (2013)

There is a weak positive correlation between Tax Rate and GDP growth rate as can be seen from the above table (r=0.3234) the strength of relationship between Tax Rate and GDP growth is determined by the coefficient of determination ( $r^2=0.1046$ ). This implies that the variation in GDP growth explained by Tax Rate is 1.05 percent mean while 99.05 percent is explained by other variables such as exports, imports among others, this reveal that the relationship between these two variables is too weak. Since (sig=0.3234 > sig=0.05), we accept the null hypothesis and conclude the there is no relationship between Tax Rate and GDP growth Rate in Uganda (2000-2010).

#### 4.3.2 Regression analysis of Tax Rate and GDP growth in Uganda.

To establish this relationship the researcher used bivariate linear regression analysis as can be seen in the table below.

Variable	Adj. <sup>2</sup>	F-Value	Sign-value	Interpretation	Decision
represented					
Tax Rate and	0.0051	1.05	0.332	There is no	Accept the
GDP				relationship	null
					hypothesis
Coefficient	Beta	<b>T</b>	Sign-value	Interpretation	Decision
Constants	1.84	4.95	0.719	There is no	Accept the
				relationship	null
					hypothesis
Tax Rate	0.4278	0.4278	0.332	There is no	Accept the
				relationship	null
					hypothesis

 Table 2: Regression of Tax Rate and GDP growth in Uganda (0.05)

Source: Researcher (2013)

The researcher fitted the regression model using the information from table 2 above and this is represented by;

#### GDP growth = $\alpha$ + $\beta$ (Tax Rate)+ei

Fitting the model becomes

#### GDP growth ==1.84+0.4278(Tax Rate)+ei

This implies that GDP growth rate without Tax Rate result into 1.84 percent and a unit change in Tax Rate lead to an increase of GDP growth by 0.43 percent.

#### t (0.025,9)=2.13

The slope  $t_1=0.43$  decision rule if  $/t/\leq t_{\alpha}$ , accept  $H_0$ ,  $\alpha = 0.05$  level of significance, since  $t_1=0.4278$  is less than  $t_{\alpha}=2.13$ . We accept  $H_0$  which states that Tax Rate is not part of the model and conclude that there is no relationship between Tax Rate and GDP growth rate in Uganda for the period under studied and other factors remain constant.

Adj  $r^2 = 0.0051$  affect Tax rate and GDP growth rate by increase 0.51 percent

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#### CHAPTER FIVE

#### DICUSSION, SUMMARY, CONCLUSION AND RECOMMENDATION

#### **5.1 DICUSSION**

#### 5.1.1 The Trend of Tax Rates in Uganda

There is a general increase in the Tax Rate of Uganda over that ten years (2000-2010), the regression model was fitted and found that tax rate has a linear trend of expenditure.

The other factors which might have led to the general rise in Tax Rate is the high level of technology, the exportation of goods and services the goods among others

#### 5.1.2 The Trend of GDP Growth in Uganda

There has been fluctuation over years that is an increase and decrease of GDP growth growth rate in for example in 2000 it was 3.1 percent then it increases from 2001 to 2002, it fluctuated (Appendix 1) this could be due to other factors which determine GDP growth such investment, exports among others but have been omitted.

#### 5.1.3 The Relationship between Tax Rate GDP growth in Uganda

The relationship between Tax Rate and GDP growth has been significant relationship according to the fitted line and regression analysis, correlation, the use of parametric test, were performed there has been a weak positive correlation between Tax Rate and GDP growth rate in Uganda (r=0.3234) The study has confirmed Wayne (1992), Blanker and Simpson (2005) which studied the same topic on Tax Rate on economic growth and there was no relationship between the two variable.) Tax Rate GDP growth rate were found under Regression analysis to have no relationship. this implies that there are other variables which influence GD[ growth Rate a part from Tax Revenue.

#### 5.2 Conclusion

This study has established the trend of Tax Rate in Uganda(2000-2010) and found a general increase over the period under studied, it has established the trend of GDP growth rate in Uganda (2000-2010) and found cyclic fluctuation as can be seen from the **Figure 3** above due to other factors which determine GDP growth a parts from Tax Rate, the study has also investigated relationship between Tax Rate and GDP growth rate in Uganda using correlation , regression

analysis with the test of hypothesis and found a weak positive correlation between Tax Rate and GDP growth.

#### **5.3 Recommendation**

I recommend the government to implement tax policies which favors every one, this can encourage people to invest since investment is the source of economic growth. On the economic growth issues the researcher recommends the strengthening of existing policies in connection to economic growth such as export promotion policies, import substitution policies. This will help to regulate on Economic growth in Uganda.

#### 5.4 Suggestions for Further Research

The results presented in this report are very not conclusive and should be treated as being preliminary. Further analysis of the survey data tax rate and GDP growth rate needs to be done to validate these findings and provide greater confidence in explaining the changes in Tax Rate and GDP growth rate.

- 1. A study should be carried to establish how the exchange rate, trade policies affect Tax Rate performance in relationship to economic growth.
- 2. The impact of imported capital, intermediate and consumer goods to economic growth.
- 3. How exchange rate affect the import demand
- 4. The relationship between inflation and economic growth.
- 5. The relationship between household investment and economic growth
- 6. Population growth rate and economic growth.

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## APPENDICES

## **APPENDIX 1:**

## The data on tax Rate and GDP growth Rate.

YEARS	TAX	GDP Growth
	Rate	rate
2000	9.81	3.1
2001	10.49	5.2
2002	10.5	8.7
2003	11.26	6.5
2004	10.69	6.8
2005	11.76	6.3
2006	12.25	10.8
2007	12.39	8.4
2008	12.9	7.2
2009	12.17	5.9
2010	15.25	6.7

Source: URA, IMF World Bank (2012)

#### APPENDIX 2.1:

# Uganda: Gross domestic product per capita growth (annual %)

The data set '<u>Gross domestic product per capita growth (annual %)</u>' for <u>Uganda</u> contains data from the year 1983 until 2011. Information: *Definition:* Annual percentage growth rate of GDP per capita based on constant local currency. GDP per capita is gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. (Source: Worldbank)

	Date		Value				
2011		5,3					
2010	· 1	6,7					
2009		5,9					
2008		7,2					
2007	· . · ·	8,4			·. · ·	-	
2006	• . •	10,8		• • •			
2005		6,3					
2004		6,8					
2003		6,5					
2002		8,7					
2001		5,2					
2000		3,1					
1999		4,9					
1998		1,8					
1997		2,0					
1996		5,8					
1995		8,1					
1994		3,1					
1993		4,9					
1992		0,0					
1991		2,0					
1990		2,8					
1989		2,6					
1988		4,4					

#### Appendix 2.2:



The data set 'Tax revenue (% of GDP)' for Uganda contains data from the year 1998 until 2011.

Information: *Definition:* Tax revenue refers to compulsory transfers to the central government for public purposes. Certain compulsory transfers such as fines, penalties, and most social security contributions are excluded. Refunds and corrections of erroneously collected tax revenue are treated as negative revenue. (Source: World bank)

Date	Value
2011	16,1
2010	15,25
2009	12,17
2008	12,9
2007	12,4
2006	12,3
2005	11,8
2004	10,7
2003	11,3
2002	10,5
2001	10,49
2000	9.89
1999	11,5
1998	10,0
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## **APPENDIX 3:**

## TIME FRAME

ctivity	February	March	April	May	June
ata gathering					·
ata sorting					
eport writing				· · · · · · · · · · · · · · · · · · ·	
Ibmission					
issertation writing					
Ibmission					

## APPENDIX 4 STUDY BUDGET

Activity	Amount
Stationery	30,000
Typing and printing	25,000
Photocopying and binding	45,000
Transport	100,000
Eats and drinks	100,000
Miscellaneous	50,000
Total	350,000

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