

**THE EFFECTS OF TAX POLICY ON ECONOMIC GROWTH IN
TANZANIA**

BY

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DECLARATION

This research project is my original work and it has not been presented and submitted to any university or college for examination.

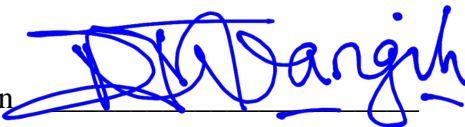
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This research project has been presented for examination with my authority and approval as the university supervisor.

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DEDICATION

I dedicate this project report to Kachumita's family, my wife, sons and daughter: -
Brighton R. Kachumita, Antia Deus Balenzi, Bryvin R. Kachumita and Brylyn R.
Kachumita.

TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENTS	iii
DEDICATION.....	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS AND ACRONYMS.....	x
ABSTRACT.....	xii
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background to the Study	1
1.1.1 Tax Policy.....	2
1.1.2 Economic Growth.....	4
1.1.3 Tax Policy and Economic Growth	5
1.1.4 Tanzania Revenue Authority	6
1.2 Research Problem.....	8
1.3 Research Objective.....	10
1.4 Value of the Study.....	10
CHAPTER TWO: LITERATURE REVIEW.....	12
2.1 Introduction	12
2.2 Theoretical Review	12
2.2.1 Ibn Khaldun’s Theory of Taxation	12
2.2.2 Endogenous Growth Theory.....	13
2.2.3 Optimal Theory of Taxation	14
2.3 Determinants of Economic Growth.....	16

2.3.1 Tax policy	16
2.3.2 Monetary Policy	16
2.3.3 Political Will.....	17
2.4 Empirical Studies	18
2.5 Conceptual Framework	21
2.6 Summary of Research Gaps	22
CHAPTER THREE:.....	24
RESEARCH METHODOLOGY	24
3.1 Introduction	24
3.2 Research Design	24
3.3 Data collection.....	25
3.4 Data Analysis	25
3.4.1 Diagnostic Tests	26
3.4.2 The Model of Analysis	27
CHAPTER FOUR:	29
DATA ANALYSIS, RESULTS, AND DISCUSSION.....	29
4.1 Introduction	29
4.2 Descriptive Statistics	29
4.3 Trend Analysis	31
4.4 Diagnostic Tests	38
4.5 Regression Analysis	40
4.6 Discussion of Findings	43
CHAPTER FIVE:	46
DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS	46
5.1 Introduction	46

5.2 Summary	46
5.3 Conclusions	48
5.4 Recommendations	49
5.5 Limitations	51
5.6 Suggestions for Further Studies	52
REFERENCES.....	53
APPENDICES	57
Appendix I: Data Collection Form.....	57
Appendix II: Research Data	59

LIST OF TABLES

Table 4.1: Descriptive Statistics	29
Table 4.2: Multi-co linearity	38
Table 4.3: Tests of Normality	39
Table 4.4: Autocorrelation	39
Table 4.5: Model Summary	40
Table 4.6: Analysis of Variance.....	41
Table 4.7: Regression Coefficients	42

LIST OF FIGURES

Figure 2.1: Conceptual Model	22
Figure 4.2: Economic growth	32
Figure 4.3: Import Duty	33
Figure 4.4: Excise Duty	34
Figure 4.5: Income Tax	35
Figure 4.6: Value Added Tax	36
Figure 4.7: Other Taxes	37
Figure 4.8: Heteroscedasticity	38

LIST OF ABBREVIATIONS AND ACRONYMS

BOT:	Bank of Tanzania
CGE	Computable General Equilibrium
DRD:	Domestic Revenue Department
EFD:	Electronic Fiscal Devices
EAC:	East Africa Community
FDI:	Foreign Direct Investment
FYDP:	Five Year Development Project
GDP:	Gross Domestic Products
GFCE:	Government Final Expenditure on Consumption
IMF:	International Monetary Fund
ITAX:	Integrated Domestic Tax systems
OECD:	Organization for Economic Co-operation and Development
OLS:	Ordinary Least Square
OGDs:	Other Governmental Bodies
PAYE;	Pay as you Earn
SDL:	Skills and Development levy

SPSS:	Statistical Package for Social Sciences
TANCIS:	Tanzania Customs Integrated Systems
TRA:	Tanzania Revenue Authority
TPA:	Tanzania Port Authority
TIN:	Taxpayer Identification Number
VAT:	Value Added Taxes
WB:	World Bank
WBG:	World Bank Group

ABSTRACT

Tax policy has significant impact on economic growth. Good tax policy influence both positive economic growth and rapid growing competition in investments. This study sought to establish the effect of tax policy instituted by the Tanzania Revenue Authority on Tanzania's economic growth. This study was supported by Ibn Khaldun theory of taxation, endogenous growth theory, and optimal theory of taxation. The study utilized a descriptive research design. Secondary semi-annual data was used in the research. The data was sourced from the Tanzanian Bureau of Statistics and the World Bank, as well as Tanzania Revenue Authority between 1992 and continuing through 2020. Statistical Package for Social Sciences Version 25 was used in the analysis. Statistical techniques such as descriptive statistics and multiple linear regressions were used. The findings were presented in the form of tables and graphs. From the descriptive statistics, the study concludes that economic growth of Tanzania averages at about 6% of GDP. The economy showed a general increase between 1996 and 2020 despite of high fluctuations within the period. The taxes in Tanzania between 1996 and 2020 showed an upward curve indicating an increase in the taxes within the period. Motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges showed a very high level of fluctuation within the period between 1996 and 2020. The findings show that taxes influence growth of an economy. Import duty exhibited positive regression coefficients while excise duty exhibited negative though insignificant coefficients. Further, the study found that income tax had a positive and significant regression coefficient against economic growth. Value added tax and other taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges having an inverse significant regressions coefficient against economic growth. This research concludes that tax policy influences the economic growth of Tanzania. This study concludes that import duty and income tax have a positive effect on the economic growth of Tanzania. On the other hand, the study concludes that excise duty has no effect on economic growth of Tanzania. Further, value added tax and other taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges possessed negative effects on economic growth of Tanzania. Government reviews its tax policy for optimal taxation which would improve the economic growth of the country. Research based on different variables, measures, period and utilizing a mixture of both primary and secondary (semi-annually) data ought to be done.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Tax policy has a significant impact on economic growth. Good tax policy will influence positive economic growth and rapidly growing investment competition. For instance, investment in Foreign Direct Investment (FDI) attracts transformation of tax policy to support the economic growth of all African Nations (Bengos & Sanchez-Robbles, 2003). It has an effect on both microeconomic and macroeconomic variables in the economy of any nation. Fair taxation is essential for the economy throughout (Islahi, 2010). Bird and Zolt (2008) stipulated how taxing agents in developed nation, in addition to developing nations face challenges, including cost of operation, taxes evading and avoiding, corruption and embezzlements, and less trust. Thus, tax policy reform and change are inevitable in tax administration to improve revenue collection, wealth redistribution and social welfare to enhance the nation's economic growth. Taxation policy attracts innovation to increase efficiency and effectiveness for economic growth, income and wealth redistribution, and promote community welfare (Edward & James, 2008).

The primary idea underpinning this research is the Ibn Khaldun theory of taxation established by Abd Ali Rahm Ibn Muhammad (1332-1406). The conceptive taxation theory with government expenditures and promotes a low tax rate and reduction to keep people motivated to work and pay their taxes. In light of the current findings, the theory is critical because it suggests tax policies that increase taxpayers' burdens may reduce economic growth. The endogenous growth theory founded by Romer (1990) also guides the study. According to the idea, economic development is the

consequence of internal causes rather than external ones. According to the idea, economic development is the consequence of internal causes rather than external ones. Government tax policies are integral to the variables that influence the economy. The final theory utilized in the current study is the optimal theory of taxation proposed by Boskin (1976). The theory focuses on designing and implementing taxation systems that capitalize on society related roles under economic constraints. According to this theory, the best tax system must maximize a social welfare function while meeting a number of other requirements. For the theory to hold, it must be based on the premise that optimum taxes will lead to increased economic development.

Tanzania has set a goal to attain a middle-income, semi-industrialized nation by 2025. Exempting capital goods from Value Added Tax (VAT) in FY 2017-2018 was one method government promoted the use of these commodities by manufacturing sectors to create new jobs and higher earnings. With several fiscal reforms undertaken in Tanzania during the last decades, better domestic revenue collection and accomplishment of the government's economic policy goals have been achieved (Osoro, 1994; IMF, 2015). The tax-to-GDP ratio was 12.5% on average between 2013 and 2017, compared to the IMF's recommendation of 15% for East Africa's fiscal years (IMF). As you can see from this percentage, Tanzanians pay too little taxes. Tanzania's authorities may increase their tax-to-GDP ratio to solve budget deficits constrain and fund development (IMF, 2018).

1.1.1 Tax Policy

According to Charles River Associates (2003), tax policy is partially defined by one or more tax examples: individual, business, property, and sales tax. It provides

methods and techniques that determine the economic effects of tax policies. James and Edward (2008) classified taxes into two groups Income tax and consumption tax, and types of taxes include; corporate tax, property tax excise duty, import duty and value-added tax. The Organization for Economic Cooperation and Development (2014) enumerated that tax policy is influenced by other policies such as monetary policy and macroeconomic variables for stance unemployment and inflation rate, institution capability, emerging changes in technology and innovations. Thus, tax policy is a set of rules, regulations and guidance in tax administration that governs how to tax, when and to whom is liable.

A World Bank Group report (2020) showed and illustrated tax policy would enhance economic growth by reducing uncertainty, increasing labor productivity, mitigate trade tension while protecting vulnerable groups through building a flexible fiscal framework and monetary fiscal framework that will enhance supervisory and regulatory following transparency. Also, tax policy is inefficient if its particular circumstance does not minimize the tax burden. In addition, the neutral principal tax system should be free from bias for every citizen in the nation. Revenue authorities should evaluate tax policy(s) should be done such that choice of the effective tax rate, the effect of the marginal rate of tax and statutory rate where weight depends on profitability and ability to protect society at large, including support on economic growth (Birds & Old-Man, 1990; James & Nobles, 2008).

The tax rate is often used to assess the effectiveness of tax policy. On the other hand, tax revenues are the most often used yardstick for assessing tax policy (Riera-Crichton, Vegh & Vuletin, 2016). The present research will evaluate tax policies based on the different tax revenues. The current study will take the natural logarithm

values of- import duty, Excise duty, Income tax entailing; corporate tax, Pay As You Earn (PAYE), individual tax, capital gain tax, and Skill Development Levy (SDL): Indirect tax constituting Value Added Tax (VAT) tax: Other taxes entailing; stamp duty, export levy, fuel levy, business license, departure charge, and motor vehicle license tax.

1.1.2 Economic Growth

Indicators of economic growth include an increase in Gross Domestic Product (GDP) or another measure of aggregate income. A rule of thumb is using the GDP growth rate to measure economic growth. The quantity of products and services produced alludes to economic growth. If economic growth is negative, the economy can decrease, especially during an economic recession and depression (Barro, 1997). Economic growth is one of the monetary policy's primary objectives and a major macroeconomic target for every nation (Otieno, 2015). Mosiori (2014) speaks about the improvement associated with money to extend the creation and use of goods and undertakings in the economy. Companies and increased personal savings can encourage economic growth in a country by implementing policies that promote the build-up of investment money (Mishkin, 2004).

The growth of the overall country's per capita output, frequently called GDP or any other aggregate measure of income, is recognized as the increase in economic development and mostly as a rate of GDP growth. Economic development only involves produced goods and services (Omoke, 2010). Several advantages exist for various economic stakeholders as economic growth improves. Some of the advantages include job development, improved living standards, improved product marketplaces and many others (Mishkin, 2004).

Growth of economy is measured GDP, government final expenditure on consumption (GFCE), household expenditure on Gross Capital Formation and consumption. The annual increase of the percentage growth of these metrics is the economic growth (Love & Lea, 2006). The present study will use semi annually GDP growth as an indicator of economic growth.

1.1.3 Tax Policy and Economic Growth

Macharia (2004) claims that a more progressive tax policy encourages the development of the economy as a whole. Taxation necessitates the redistribution of resources among the people. It's important that tax policy should be straightforward and equal to enable voluntary compliance that allows for both an optimum tax system and a fair tax system; nevertheless, there is a trade-off between efficient tax systems and the fairness of tax systems (James & Edward, 2008). The three guiding principles of improved tax policy should be fairness, efficiency, and administrative capacity. These concepts will help tax policy promote successful economic development. Ibn Khaldun Taxation theory, shows fair taxation at minimum rate which will allow economic growth and maximum tax base as result of voluntary compliance.

Tax policy has significant impact on economic growth. Good tax policy will influence positive economic growth, rapid growing competition in investments for example investment on FDI attracts transformation of tax policy so that to support economic growth of all African Nations (Bengos& Sanchez-Robbles, 2003). It has effect on both microeconomic and macroeconomic variables in the economy of any national. Fair taxation is important for economic throughout (Islahi, 2010). Bird and Zolt (2008) stipulated how taxing agents in both developed and developing nations experiences challenges including high cost of operation, tax evasion and avoidance,

corruption and embezzlements, less trust. Thus, tax policies reform and change are inevitable on tax administration in order to improve revenue collection, wealth redistribution and social welfare to enhance economic growth of nation. Taxation policy attracts innovation in order to increase efficiency and effectiveness for economic growth, income and wealth redistribution, promote community welfare (Edward & James, 2008).

According to Gordon (2010), a high tax rate on business and individual income affects supply and demand, which affects productivity and therefore has a negative impact on the economy's overall development. Some countries tax systems and tax policy intending purely toward economic growth. This study is necessary because tax systems still lack equity, neutrality principles which apply to national, international community. Therefore, taxation policy review and transformation are required to enhance growth of economy.

1.1.4 Tanzania Revenue Authority

Tanzania Revenue Authority (TRA) is solitary an institution mandated to administer tax issues in Tanzania was formed in 1996 enacted by parliament number 11 of 1995. Notwithstanding the date of establishment, the authority started operations on 1st July 1996. TRA is under minister of finance managed by Board of directors through Commissioner General(CG). TRA has two departments, Revenue department and Supportive department of TRA has total thirteen departments;- Domestic Revenue Department, Customs and Excise, Tax investigation, large tax payers and supportive department include; Human resource and administration, internal audit, information and communication technology, internal affairs, Procurement and logistics, Board

secretariat and legal services, tax payer service and education, department of research, Policy, Planning and Department of Accounts and Finance.

TRA administers tax policies through research policy and planning department which approved by Ministry of Finance and Economy (TRA, 2011). Tax policies in Tanzania has undergone several transformation changes and reform which have some extent has changed behaviors of tax payers as their results there are increase of revenue substantially. TRA is responsible for taxation policy formulation, implementation over see whether they align with tax objectives. For stance Implementation of presumptive income tax rate led to increase of revenue and tax base for five years consecutive from 69 percent to 75 percent in between 2005/2006 to 2019/2010 (TRA, 2011). However, there is lot still to be done so that take Tanzania to go next level let say to achieve 2025 Tanzanian's vision as leakage of revenue still exists also there is a need to promote voluntary compliance at large in the community and tax payer education is highly needed so as to support fast economic growth.

According to official plans, Tanzania will be a middle-income, semi-industrialized country by 2025. During the 2017-2018 fiscal years, the government exempted capital goods from the Value Added Tax to encourage manufacturing firms to utilize these commodities and generate growth, employment, and better profits. Tanzania has implemented many fiscal reforms in the past few decades to improve domestic revenue collection and help the government achieve its economic policy objectives (Osoro, 1994; IMF, 2015). Fiscal years 2013 to 2017 had a relatively low tax-to-GDP ratio of 12.5%, in comparison to IMF's recommended mean of 15% for East Africa's areas (IMF). In light of this ratio, Tanzania seems to have a tax burden that is too

light. To solve the budget short falls and fund for development, Tanzania's government may increase its tax-to-GDP ratio since it is so low (IMF, 2018).

1.2 Research Problem

Tax policy has significant impact on economic growth. Good tax policy will influence positive economic growth, rapid growing competition in investments. For instance, investment on Foreign Direct Investment (FDI) attracts transformation of tax policy so that to support economic growth of all African Nations (Bengos & Sanchez-Robbles, (2003)). It has effect on both microeconomic and macroeconomic variables in the economy of any national. Fair taxation is important for economic throughout (Islahi, 2010). Bird and Zolt 2008 stipulated how tax agencies in both developed and developing nations facing challenges including high cost of operation, tax evasion and avoidance, corruption and embezzlements, less trust. Thus, tax policies reform and change are inevitable on tax administration in order to improve revenue collection, wealth redistribution and social welfare to enhance economic growth of nation. Taxation policy attracts innovation in order to increase efficiency and effectiveness for economic growth, income and wealth redistribution, promote community welfare (Edward & James, 2008).

According to World Bank Group (2019) the rate of policies in Tanzania changes ranges from 5% to 20% which is high compared to other Nations in East Africa like Rwanda. This affect FDI due predictability of policy finally affect to return of Nation and finally Economic growth at large. Stable national laws and tax policies are essential for the survival of the business community and the maintenance of economic growth. There was a lower-than-average tax-to-GDP ratio during fiscal years 2013

and 2017, with an average of 12.5%, compared to the IMF's recommended rate of 15%. (IMF). In light of this ratio, Tanzania seems to have a tax burden that is too light. To solve the budget short falls and fund development, Tanzania's government may increase its tax-to-GDP ratio since it is so low (IMF, 2018). This prompted the current study which intended to investigate whether the various tax policies could spur Tanzania's economic growth.

For a global perspective, Gale and Sam wick (2014) looked at how individual income tax change affects long-term development. Due to lack of Tanzanian research, there is a knowledge gap. It was shown that tax policies had an effect on economic development in South Asian countries by Ul Haq and Akram (2009). This is because the research was not done in Tanzania, there is a knowledge gap. The geographical effect of taxes on economic development in Kenya was examined by Karumba (2016). Because the research was not done in Tanzania, there is a knowledge gap. According to Khumbuzile and H, lalefang (2018), taxes in South Africa have influences on economic development. Because the research was not done in Tanzania, there is a knowledge gap. According to Ngasamiaku and Sende (2020), the government's expenditures and taxes have an impact on the country's economic development. Thus, there is a conceptual chasm since the research did not examine only the impacts of tax policies on economic development. The effect of Tanzanian fiscal policy on income distribution was examined by Maskaeva, et al (2019). An important conceptual gap was left by the study's failure to link tax policy to economic development.

However, there is a cause and effect connection between tax policy and the country's economic development, as shown by the present research. Ibn Khaldun's ideas on

taxes demonstrated that equitable taxation promotes communal economic development. Several academic studies show that tax policy has an effect on economic choices, but it is far from clear that lower tax rates would lead to a larger economy in the long term (ex post). Reduced interest rates would boost after-tax income from current levels of activity, allowing people to spend less time working, saving, and investing (Gale & Sam wick, 2014). There was a conceptual hole that has to be filled because of the dilemma of whether tax policies increase or decrease economic growth. An attempt was made in this research to close the conceptual gaps by answering question: What is the effect of tax policy on that country's economic growth in Tanzania?

1.3 Research Objective

The objective of research to establish effects of tax policy on economic growth in Tanzania.

1.4 Value of the Study

The results may be relevant to several interested parties. It is expected that the new studying will have a direct impact significantly to the currently available body of knowledge and help to anticipate future economic development based on tax policy. Essentially, other researchers can take this study as precedent in the future. Additionally, it will boost the depth and value of research studies and publications. In terms of learning and increasing the information on variables, outcomes are beneficial. The researcher will be able to highlight on important aspect on tax policy change and practice for efficiency, equity, neutrality in tax administration and enforcement will embrace economic growth of Tanzania by broadening tax base, cost

effective and reduction of tax evasion and avoidance and concepts gapes for future study.

Outcomes might be of immense benefit to parties involved in making of policies. Informational output might assist in policies development to enhance economic growth. For instance, knowledge of how tax policies influence economic growth as it will help policy makers in various government institutions in setting tax policies that will boost economic growth and revenue collection.

The study will benefit TRA management by furnishing them with pertinent information on the influence of tax policies on economic growth which can help them in designing appropriate policies to optimize economic growth. This study will also be vital to foreigner direct investors it will be valuable reference to improve existing tax policy(s), tax systems and tax laws which forbidden efficiency and stability for sustainable economic growth of Tanzania and enable investors to allocate investment so that obtain maximum returns and growing economies in EAC through accessing area of investment, allocation and destination.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

There were three main parts to this chapter: empirical studies and theoretical review, which covered all the theories related to the research on the impact of tax policy on economic growth, and theories include the endogenous growth theory, Ibin Kahldun's taxation theory, and the optimal taxation theory. The present research emphasized factors influencing economic development as well as the conceptual framework used.

2.2 Theoretical Review

Hypothesis emphasize tax principles and emphasize the significance of taxes for economic growth in every nation. These theories base on tax principles; ability to pay, fairness, neutrality, simplicity, revenue abundance and productivity. The main anchoring theory for this study is Ibin Kaldun's theory of taxation. The additional ideas driving this research are the endogenous growth theory and the optimum hypothesis of taxes.

2.2.1 Ibn Khaldun's Theory of Taxation

This was founded by Abd Ali Rahm Ibn Muhammad (1332-1406) and has been considered as most important theory for economic growth. The Ibn Khaldun's theory explains policy of wise and productive public expectation. A low tax rate and tax cuts are advocated so that the motivation to work does not disappear and taxes are paid, according to this idea, which connects taxation theory with government spending. The theory focused on the, tax rate, government expenditure, enhancing economic growth and tax policy in factor of productivity. In short, the theory exhausts foundation of

taxation in economic, social and political structure, and taxation principles such as neutrality, efficiency and ability to pay (Islahi, 2010).

Islahi, (2010) emphasized that high tax rate shrinks the tax base due reduction of economic activity which is revealed in real life today. Hence, it is viewed as forerunner of modernization that high tax rate affect economic growth. Abu Bakar and Abdul (2017) opined that as respects to spending, hypothesis just affected stuffs that occurred in that period and previously which may not apply in today's setting. Ibn Khaldun, also did not touch on how to determine whether certain expenses should be categorized as luxury spending and thus come to waste.

Since it states that tax policies that raise the tax burden may have a negative impact on economic development, this theory was pertinent to the present research. According to this idea, a low tax rate and tax cuts are needed to keep incentives to work and pay taxes intact. Economic development is enhanced by incorporating taxation concepts such as fairness in the collection of taxes and efficiency in how taxes are used.

2.2.2 Endogenous Growth Theory

Roman (1990) developed the endogenous growth hypothesis, which states that a country's economic development is a consequence of variables inside the economy rather than external influences influencing it. Economic growth depends on investments in human capital, innovation, and knowledge, according to the endogenous growth hypothesis of economic growth. Theories such as these are founded on positive externalities and the economic development-promoting effects of knowledge. It also recognizes that economic growth in long run is determined by policy measures which include research and development, increase in education

growth rate which increase incentive for, creativity and human skills (Padda & Akram, 2009).

In order to achieve fiscal tolerance over a length of time, there has been unrelenting discussion about tax policy guidelines for controlling the composition of public debt, spending, and income. There are numerous basic requirements and considerations that Romer (1986) emphasized the importance of government in stimulating economic growth, social development and benefit redistribution while also promoting employment and social justice by decreasing disparities between different income and wealth groups as well as the present generation from future ones. According to this hypothesis, government policy changes will not have a long-term impact on economic growth. Therefore, a nation's long-term economic development should be temporarily impacted by a change in the tax system of that country. Thus, according to exogenous and endogenous theory opposes each other however revealed that internal factor holds much in growth rate determination.

The theory tied to the study because the theory stipulated that economic growth is as result of internal factors and not external forces. Tax policies are part and parcel of internal factors. The theory also states that economic growth in long run is determined by policy measures. Thus, tax policy measures could augment a nation's economic growth.

2.2.3 Optimal Theory of Taxation

Boskin developed the optimum taxation hypothesis (1976). According to this theory, a tax system should be designed and implemented in such a way that it optimizes social utility functions while still meeting economic limitations. According to the

idea, a tax system should be chosen to maximize a social welfare function under specific constraints. A utilitarian social planner, according to optimal taxation theory, bases the social welfare function on an individual's usefulness in the society rather than the collective good. A nonlinear function of individual utility is used to derive the theory's social welfare function. For example, a social planner who favors more equitable distributions of utility may make use of non-linearity as per Mankiw, et al (2014).

However, the majority of taxes affect individual behavior by making choice example labor, become less attractive since it is taxed heavily. Taxation-induced distortions in the distribution of wealth while maximizing revenue and redistribution. Lump sum tax, where individuals cannot alter their behavior to decrease the tax burden, and Pigouvian tax, where market consumption of commodities is inefficient and taxes push consumption closer together, are examples of taxes that have less of a distorting effect. All these taxes fall under indirect tax such as consumptive taxes Word Bank Group, (2020). In addition, Mankiw, et al (2014) hypothesize that the social planner only cares about the average utility, suggesting a social welfare function that is linear in individual utilities.

The optimal taxation theory demonstrated a trade-off between optimal taxes and economic development. Accordingly, the theory connected to the present research since fiscal policies should strive for optimal taxation in order to stimulate economic development. Thus, the tax policies should maximize social welfare functions under economic constraints.

2.3 Determinants of Economic Growth

These factors are theoretically and practically influence the economic growth of nation other than tax policy. They determine effect depending on government intervention and direction these include monetary policy, tax policy and political will of government in power especially in developing economy. Frank (1989) discussed that determinant are factors which affect outcome of particular occasion of something. Revenue collection and government spending, which are controlled by current fiscal policy, political will, and monetary policy, as well as tax policy and technology, have an impact on economic growth.

2.3.1 Tax policy

These are tax systems should obey to tax theories and principles of taxation which state when to tax, how tax, whom to tax and what to tax. This gives scope of taxation and objectives (James & Edward, 2008). In Tanzania, the good tax policy should be attributed by following characteristics: -certainty, equality, convenience, economy, neutrality, flexibility, productivity and fairness. According to Adeyeye (2019), the primary objective of taxation and its products is to generate money in order to fund government expenditures, protect society, and reduce income and wealth disparities.

2.3.2 Monetary Policy

Monetary policy is another vital tool in economic growth it determines how government revenue is spent to stabilize economy, expansionary monetary policy increase income to the people and business community and investment while contraction monetary policy reduce supply of money in the economy, reduce consumption and investment hence reduce economic growth the process continue

hence stabilization of economic growth. In so doing the objective of taxation of redistribution of income and wealth is attained. Maskaeva et al. (2019) stipulated that several fiscal reforms and intervene over twenty years aiming at economic growth and macroeconomic stability, revenue collection and revenue share that is redistribution within the community. macroeconomic variable includes exchange rate, consumer price index, employment and inflation.

2.3.3 Political Will

Political willingness is another determinant for economic growth for any transformation needed committed leadership and accountability. Transformation may be influenced by political agenda and self-interest of leaders in most developing countries like Tanzania, experiences shows that there is difficult which would reflect real change for taxation objectives and effectively improve social welfare and income level of community, wealth redistribution, Bird and Zolt (2008), Many developing nations, like Tanzania, stand to benefit from the introduction of innovative technology, as shown by the usage of financial networks run via mobile telephone networks to circumvent inefficient infrastructure. Tanzania has a pressing need, as shown in Brazil and Chile, to enhance tax administration within a short period of time in order to meet its 2025 economic growth target. Major tax changes are therefore always and everywhere a justification in political legitimating, according to Schneider and Moore (2003), more money must be paid, but those who do so must be persuaded that they will get something of value in return. No one should be allowed to stop tax changes because some people won't pay their fair share (Bird, 2007).

2.4 Empirical Studies

A number of studies have looked at the impact of tax policy on economic growth and development. Individual income tax adjustments have a long-term impact on global economic development, as Gale and Sam Wick (2014) explore. In the research, it was shown that tax increases do not all affect growth equally. Import duty and income tax was found to have a positive effect on economic growth while VAT and excise duty tax showed no significant effect. A good effect on long-term economic development may be achieved by making adjustments that enhance incentives while decreasing present subsidies, preventing windfall gains, and not financing deficit. However, this may lead to trade-offs between justice and efficiency. There's a knowledge chasm as a consequence of no study being done in Tanzania.

Studying South Asian countries in particular, Al Haq and Akram (2009) looked at how tax policies affect economic development. The study's goal was to see whether Pakistani, Indian, and Sri Lankan tax policies had a short-term or long-term impact on economic development. According to the results of the research, tax rates have a short-term and negative impact on growth, but no long-term impact. Because the research was not done in Tanzania, there was a vacuum in the knowledge base and context gape.

Karumba (2016) examined the influence of taxes on economic development in Kenya. An endogenous growth model was used to examine the overall effect of taxation, as well as the influence of indirect and direct taxes on GDP growth. Time series data from 1975 to 2014 was used in the analysis. The long-run co integrating equation was calculated with the help of the Ordinary Least Squares (OLS) technique. The findings

of the study showed that explanatory variables explained the majority of the growth in the GDP number. Furthermore, the findings of the research indicated that indirect taxes had a short-term detrimental impact on Kenya's economic growth. However, FDI and net exports [imports & exports] both had a favorable and substantial impact on short-term economic development in Kenya. Because the research was not done in Tanzania, it has a contextual void. Because correlation and multiple linear regression analytical methods were not used in the study, a gap in the research methodology was evident.

Economic growth in South Africa was examined by Khumbuzile and Hlalefang (2018), who found that taxes had a significant effect. Annual South African data from 1981 to 2016 were used to develop the Auto-Regressive Distribution Lag (ARDL) technique. Study results revealed a negative relationship between taxation and economic growth in South Africa. In other study, it's been shown that economic growth is linked to trade and openness, capital, and taxes. Because the research was not done in Tanzania, there was a vacuum in the knowledge.

Government spending and taxation have a significant effect on Tanzanian economic growth from 1967 to 2017, according to Ngasamiaku and Sende (2020). Studies that relayed on secondary data to assess the effects on economic growth, the researcher utilized ADF and Phillips-Perron test statistics for unit root tests as well as the ARDL model. The results were analyzed using these tests. The ARDL method to the co-integration bound test showed a co-integration between development spending, recurrent expenditure, and income tax. In addition, the ARDL model's results showed that there was strong evidence that, in the near term, recurring spending and income tax had a negative impact on economic growth whereas development expenditure had

a favorable one. The study also found that long-term development spending had a positive and substantial influence on growth rate, whereas income tax had a negative impact. Economic development was hindered significantly by recurring spending. An important conceptual gap existed since the research did not focus on the impact of tax policy on economic development as the only focus of attention.

According to Maskaeva et al (2019), Tanzania's fiscal policy has a significant effect on income distribution. The research particularly looked at the effect of decrease in VAT on capital goods such as electricity, cars, machinery and equipment under two alternative closure rules: Fixed government expenditures and flexible government savings; Flexible government expenditures and fixed government savings. The research relied heavily on Computable General Equilibrium (CGE) models as its primary analytical tool. According to the study's results, government savings decreased under policies of fixed government expenditures and flexible government saves, and businesses that relied significantly on government investments suffered. The study's results also revealed that, with flexible government spending and fixed government savings, production rose across all industrial sectors, reducing average unemployment and increasing real consumption for all except the wealthiest households. An important conceptual chasm was left by the research, which failed to link tax policy to economic development.

Kim and Kim (2019) conducted research in Tanzania and Uganda on tax reform, tax compliance, and state formation. The researcher aimed to make analysis of effectiveness of tax administration because of quasi voluntary compliance, strategic and normative factors, quasi voluntary compliance come from mixed set of tax payer due to non-compliance. The study empirically utilized strategic and normative factors.

The study findings revealed that Tanzania has as achieved through tax administration because of quasi voluntary compliance due to change of normative factors as compared to Uganda. The study did not relate tax policy to economic growth thus presenting a conceptual gap.

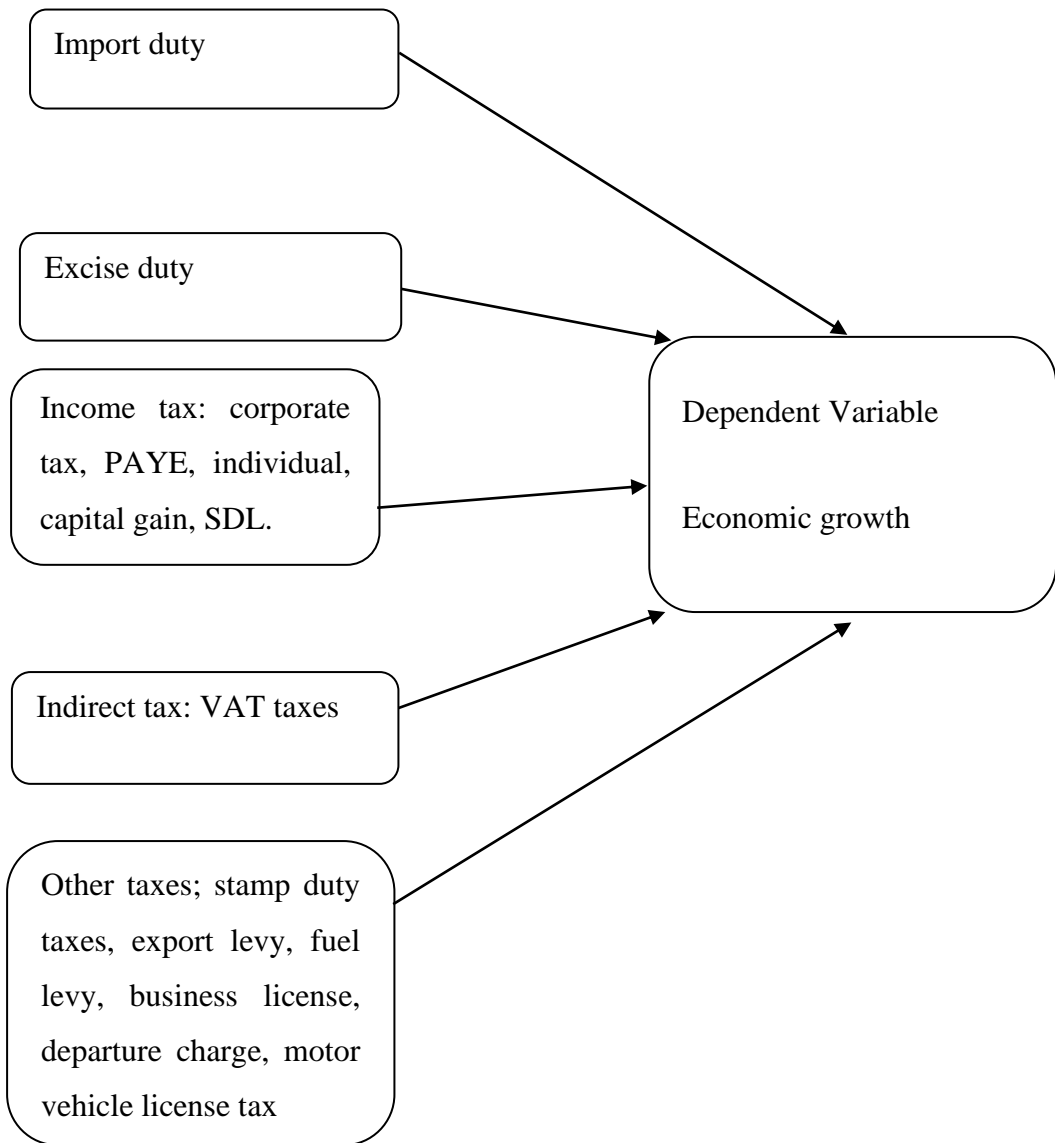
In 1999, Devereux & Griffith (2002) used the Institute of Fiscal Studies and the Centre for Economic Policy Research in France, Germany, and the United Kingdom to assess and analyze the impact of tax policy on investment location. The study findings exhibited that the average tax rate affect returns, cash flows and distribution and the marginal effect of tax rate and net present value is conditional for choice for location of investment as affect directly on cost of capital of Investment. The study did not relate tax policy to economic growth thus presenting a conceptual gap. Additionally, the study was not conducted in the Tanzanian context thus presenting a contextual gap.

2.5 Conceptual Framework

Rocco and Plakhotnik (2009) opined that a conceptual framework for research questions and goals sets the basis by anchoring the investigation within a relevant knowledge structure. Clearly illustrated, the structure gave the researcher the ability to deduce information. Growth in the economy was the dependent variable for this study. The independent variables were import duties, excise duties, income taxes, indirect taxes, and other types of levies. Figure 2.1 depicted the conceptual framework that was created for this investigation.

Figure 2.1: Conceptual Model

Independent variables



2.6 Summary of Research Gaps

There is a causal effect relationship between tax policy and economic growth, as this study demonstrated. However, existing tax policies either promote or slow down Tanzania's economic growth. Ibn Khaldun's theories on taxation demonstrated that equitable taxation promotes community economic growth. A variety of academic studies showed that tax policy choices have an impact on economic development, but

it was not far from certainly that lower tax rates lead to a larger economy when looked at ex ante. Because of the rate cuts, people earn more after taxes from their current level of activities and therefore have less need to work, save, and invest, while also increasing their after-tax return from working, saving, and investing (Gale & Samwick, 2014). The current study intended to fill the conceptual gap inherent in the paradox of whether tax policies augment or diminish economic growth.

CHAPTER THREE:

RESEARCH METHODOLOGY

3.1 Introduction

This chapter served as the research study's blueprint, outlining the study's approach in detail. There were multiple sub-sections in this chapter, including research design expounding on the design applicable to the study, and target population detailing the population of interest. Data collection was also looked into where data required was specified and how it was collected. Finally, the chapter showed the data analysis technique that was applied by the researcher.

3.2 Research Design

Creswell (2015) defines a research design as a description of how a study is carried out. The study subjected and the sites of study were selected through the basis. It is a systematic plan to study a problem and it involves the actual execution and implementation of the research plans. The study utilized a descriptive research design in a bid to measure the data trends that existed in reference to the topic of study. The research design involved scrutiny of tax policy(s), on economic growth, why effects appeared the way they are (Kothari, 2004). It used quantitative techniques to obtain information concerning situation and trend in respect to variables such as taxation policy(s) and economic growth. According to Nassaji (2015), the descriptive method gave the researcher a way to compare and contrast the different types of data in order to ascertain the trends that exist therein. The descriptive research methodology was chosen for the study because it was utilized to explain a variety of phenomena and

their individual features in great detail. Descriptive methods assisted to summarize and substantiate assertions of facts by providing data sets.

3.3 Data collection

The data collection technique was crucial since it impacted on the results' legitimacy. The researcher used secondary data in this case. Utilization of secondary data saved time, provide large quality data base and omitted biasness for data which would be collected from primary source. Secondary published data was used in the research, such as that from the Tanzanian Bureau of Statistics and the World Bank, as well as data from TRA. Studying the impact of tax policy on economic development required a number of time series observations of revenue collection and GDP data going back to 1996 and continuing through 2020. Semi-annual data was used for analysis. This gave 50 data points for analysis.

3.4 Data Analysis

The data was arranged in tabular form to make the data gathering and analysis process more understandable. Once the semi-annual data was arranged in an Excel spreadsheet, it was analyzed using the Statistical Package for Social Sciences (SPSS) Version 25. Statistical techniques such as multiple linear regressions were used. Regression analysis was used to determine how important the relationships between the study variables were. Quantitative findings were presented in tables and graphs.

The study maintained the confidence level at 95%. At 0.05 levels, the findings were set to be statistically significant and this meant that for values to be significant they ought to be below 0.05. In forecasting financial reporting quality, a statistical

inference technique is used in concluding the accuracy of the model. The 95% confidence level was applied in testing the model significance. The significance values determined how the predictor variables relate to the response variables.

3.4.1 Diagnostic Tests

The validity of linear regression models was insured by a number of assumptions. No multi-co linearity, random observation sampling with zero conditional mean is assumed. The linear regression model's parameters were also assumed to be linear. There are also several optional assumptions: no auto correlation, no homo-scedasticity and the distribution of error terms is assumed to be normal. The best linear non-biased estimators are shown by Gauss-Markov Theorem to be the first five linear regression model assumptions, OLS regression estimators (Grewal et al, 2004). Regression relies on these assumptions, and if any of them are violated, the regression estimates become faulty and inaccurate (or both). Violations of this rule would lead to erroneous regression estimations of the variance of the estimate and thus inaccurate confidence intervals with either too broad or too tight boundaries (Gall et al., 2006).

To guarantee that the assumptions are met such that the best linear unbiased estimators are available, the researcher ought to undertake diagnostic tests. Regression diagnostics evaluated the model assumptions and test whether or not there were interpretations with a large, unjustified impact. In order to determine if a linear regression model was suitable, the gathered data was submitted to diagnostic tests including autocorrelation, multi-co linearity, hetero-scedasticity, and normality. The Shapiro-Wilk test was used to determine whether or not the distribution was normal; this was suitable for Gaussian distributions with a defined variance and mean. Linearity means that the dependent and independent variables had a direct

proportional relationship and that the dependent variable's variation corresponded to this relationship (Gall et al., 2006). To test for linearity, homo-scedasticity was determined and established through the Breusch-Pagan Cook-Weisberg Test for homo-scedasticity.

Variance Inflation Factors (VIF) was applied in testing for multi-co linearity and they showed whether the predictor variables had a significant correlation on each other. According to Grewal et al. (2004), the main cause of multi-co linearity is the use of small sample sizes, poor measure reliability, and low explained variables in the independent variables. Durbin-Watson Statistic tested for existence of auto-correlation.

3.4.2 The Model of Analysis

Multiple linear regression analysis was used to achieve the study's goals, which investigated if the independent variables had any effect on economic growth. The statistical tests were done at a significance level of 95%, implying an error margin of up to 5%. The below model was applied;

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \varepsilon$$

Where;

Y_t = Economic Growth

β_0 = Constant Value

$\beta_1 - \beta_4$ = coefficient of import duty, excise duty, income tax, VAT and other taxes

X_{1t} = Import Duty

X_{2t} =Excise Duty

X_{3t} = Income Taxes

X_{4t} = VAT Taxes

X_{5t} = Other Taxes

ε =Error term

t =Half year

Table 3.1: Operationalization of the Study Variables

Variables	Measurement	Source of data
Economic Growth	GDP Growth $((GDP_{t+1}-GDP_t))/ GDP_t$	Word Bank Report/ Tanzania Bureau of statistics
Income taxes	Ln total annual corporate tax, Pay as You Earn (PAYE), individual tax, capital gain tax, and Skill Development Levy (SDL) in Tz shillings	Income tax Act &TRA
Excise duty	Ln total annual excise duty in Tz Shillings	Excise duty tax Act &TRA
Import Duty	Ln total annual import duty in Tz Shillings	Import duty tax Act &TRA
Indirect Taxes	Ln total annual VAT tax in Tz Shillings	VAT act 2014& TRA
Other Taxes	Ln total annual Motor vehicle taxes, stamp duty, Business license, export duty, fuel levy, and port charges in Tanzania shillings	TRA& Tanzania Port Authority

CHAPTER FOUR:

DATA ANALYSIS, RESULTS, AND DISCUSSION

4.1 Introduction

The conclusions from data processing are discussed in this section. An explanation of the results based on the survey's factors and goal too is offered in this section. The findings were based on the objective that sought to establish the effect of the tax policy instituted by the Tanzania Revenue Authority on Tanzania's economic growth. This study adopted the data between 1996 and 2020, which was the only available data on Tanzania's tax policy, giving a total of 50 data points since the study was based on semi-annual data for analysis. The data between 1992 and 1995 was not available for analysis. The researcher did data analysis using SPSS version 25, which assisted in generating regression statistics.

4.2 Descriptive Statistics

Table 4.1: Descriptive Statistics

		N	Minimum	Maximum	Mean	Standard. Deviation
Economic Growth	(%)	50	1.89634	7.73144	5.809570	1.39811924
Import Duty	Tsh. B	50	62.8800	3589.0000	1032.9034	1008.52935
Excise Duty	Tsh. B	50	25.5900	1921.0300	501.6836	525.56355
Income Tax	Tsh. B	50	30.2200	5587.3200	1163.4301	1506.71381
Value Added Tax	Tsh. B	50	15.4400	1887.3100	396.7939	507.94135
Other Taxes	Tsh. B	50	10.2400	195.6000	67.3965	53.47094

From the descriptive statistics, economic growth (GDP) showed a mean of 5.8% with a standard deviation of 5.81%. Tanzania experienced an average semi-annual economic growth of 5.81% between 1996 and 2020. The country also showed a low variation in the GDP growth within the study period, as shown by a standard deviation of 1.398%. The minimum economic growth rate between 1996 and 2020 was 1.896%, with a maximum of 7.731%. This shows that the worst performance of Tanzania between 1996 and 2020 was shown by 2% of the GDP. The period showed a high of 8% within the period. In the same period, import duty showed an average of 1032.903 billion Tanzanian shillings semi-annually with a standard deviation of 1008.529 billion. This indicates that the semi-annual import duty in Tanzania averaged 1032.903 billion shillings between 1996 and 2020. Within the period, semi-annual import duty ranged between 62.88 and 3589.00 billion shillings. It shows that the semi-annual import duty fluctuated highly between 1996 and 2020. The semi-annual excise duty showed a mean of 501.684 billion shillings with a standard deviation of 525.564 billion. Semi-annual excise duty in Tanzania averaged at 501.684 billion shillings between 1996 and 2020. The excise duty within the period ranged between 25.59 and 1921.03 billion shillings indicating that the semi-annual excise duty within the period showed a high fluctuation which may be accrued to the tax policy change.

Income tax, however, showed a semi-annual mean value of 1163.430 billion and a standard deviation of 2358.92. This postulates that semi-annual income tax in Tanzania averaged 1506.714 billion shillings between 1996 and 2020. The semi-annual income tax ranged between 30.22 and 5587.32 billion shillings. This shows that the semi-annual income tax differed significantly across the research period.

Value added tax showed a semi-annual mean of 396.794 billion shillings. This indicates that the value-added tax in Tanzania averaged 396.7939 billion shillings between 1996 and 2020. The semi-annual value added tax ranged between 15.44 and 1887.31 billion with a standard deviation of 507.941 billion. Thus, between 1996 and 2020, the semi-annual value-added tax in Tanzania showed a high variation across the years.

Other semi-annual taxes like Motor vehicle taxes, stamp duty, Business license, export duty, fuel levy, and port charges showed a mean of 67.397 billion shillings between 1996 and 2020. The semi-annual taxes showed a range between 10.24 and 195.60 billion shillings with a standard deviation of 53.471 billion shillings for the period. This shows a high variation of the semi-annual taxes within the period compared to the mean. The descriptive statistics show that Tanzania has various taxes in its tax policy.

4.3 Trend Analysis

The researcher undertook a trend analysis to establish movement of taxes and economic growth of Tanzania across the years 1996-2020. The trend of individual taxes as well as economic growth is shown below.

Figure 4.2: Economic growth

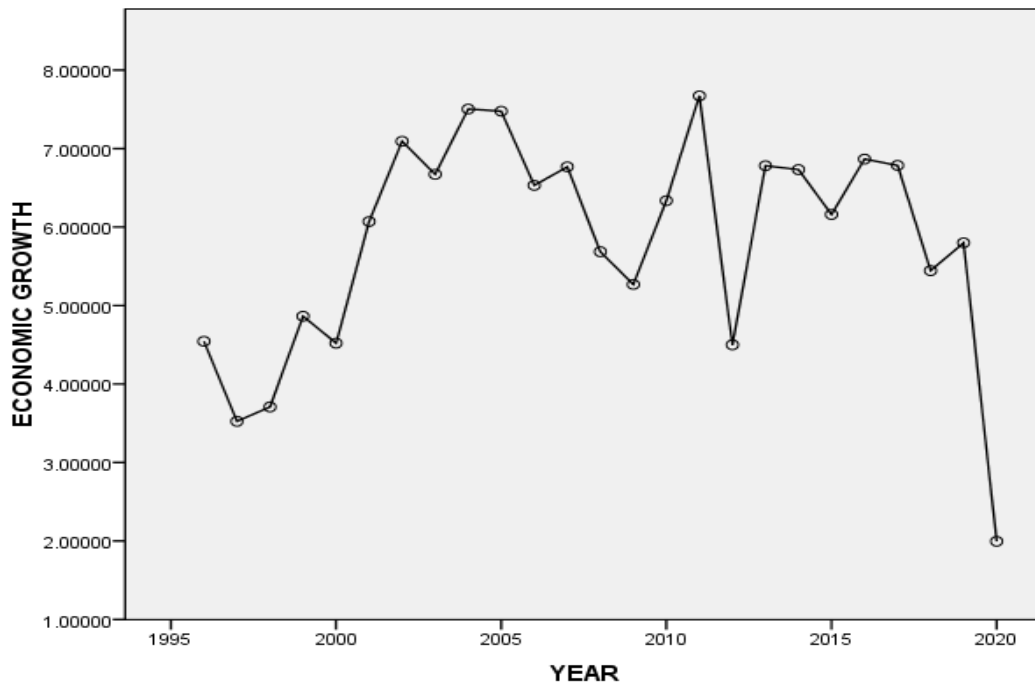
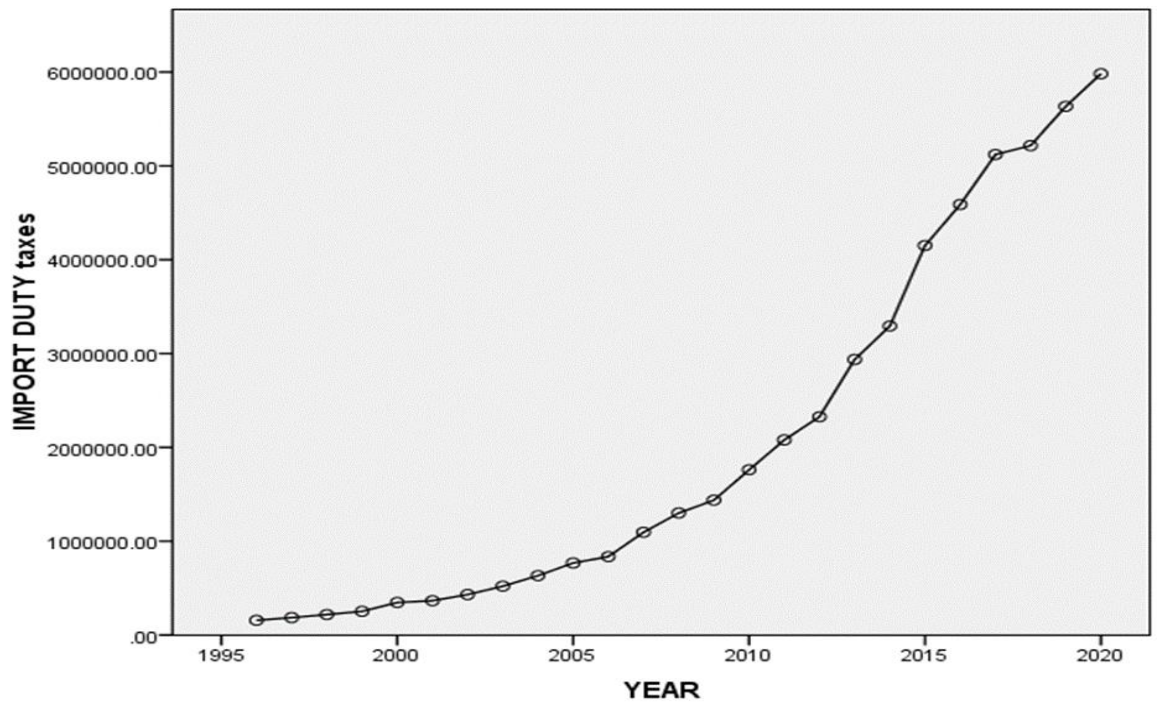


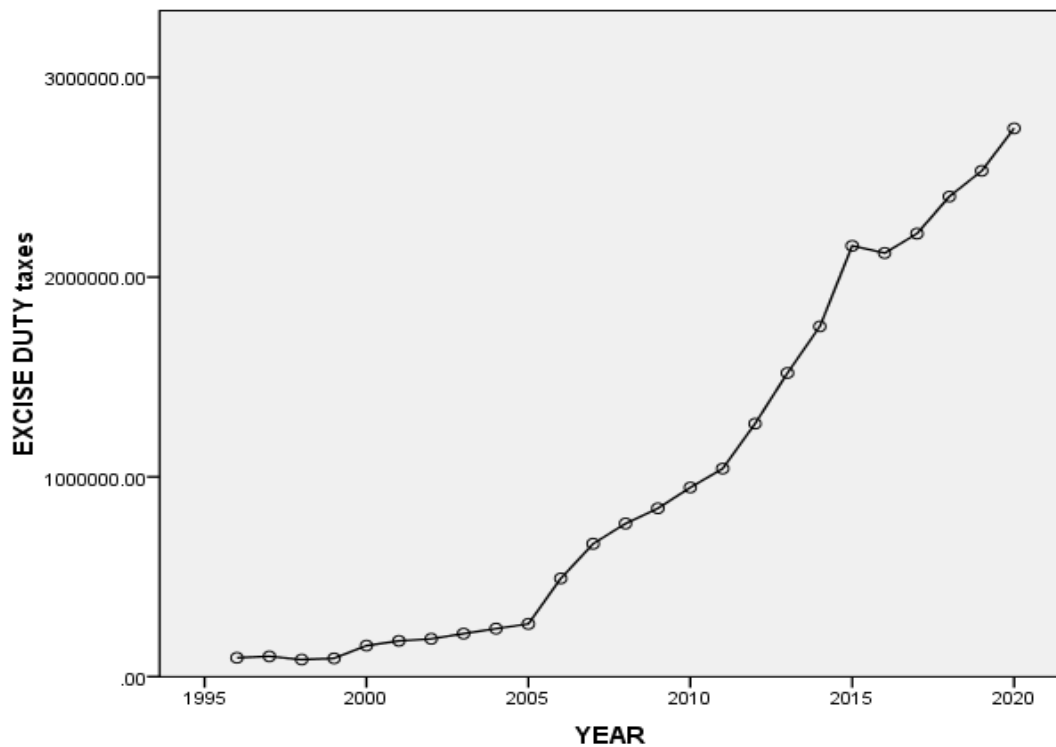
Figure 4.2 shows the movement of economic growth between 1996 and 2020. The economy showed a very high fluctuation between 1996 and 2020. The fluctuation was shown by the increase and decrease of the economic growth of Tanzania every year single year. The country experienced a sharp decrease in economic growth in 1996 before a gradual increase in 1997, followed by a sharp increase from 1998 to 2000. The economic growth decreased gradually in 2000 before increasing sharply in 2001, after which the economic growth experienced a marginal reduction in 2002. In 2002, the economic growth decreased sharply to 2003, after which it increased gradually before a sharp decrease in 2005 followed by a gradual decrease in 2006.

Figure 4.3: Import Duty



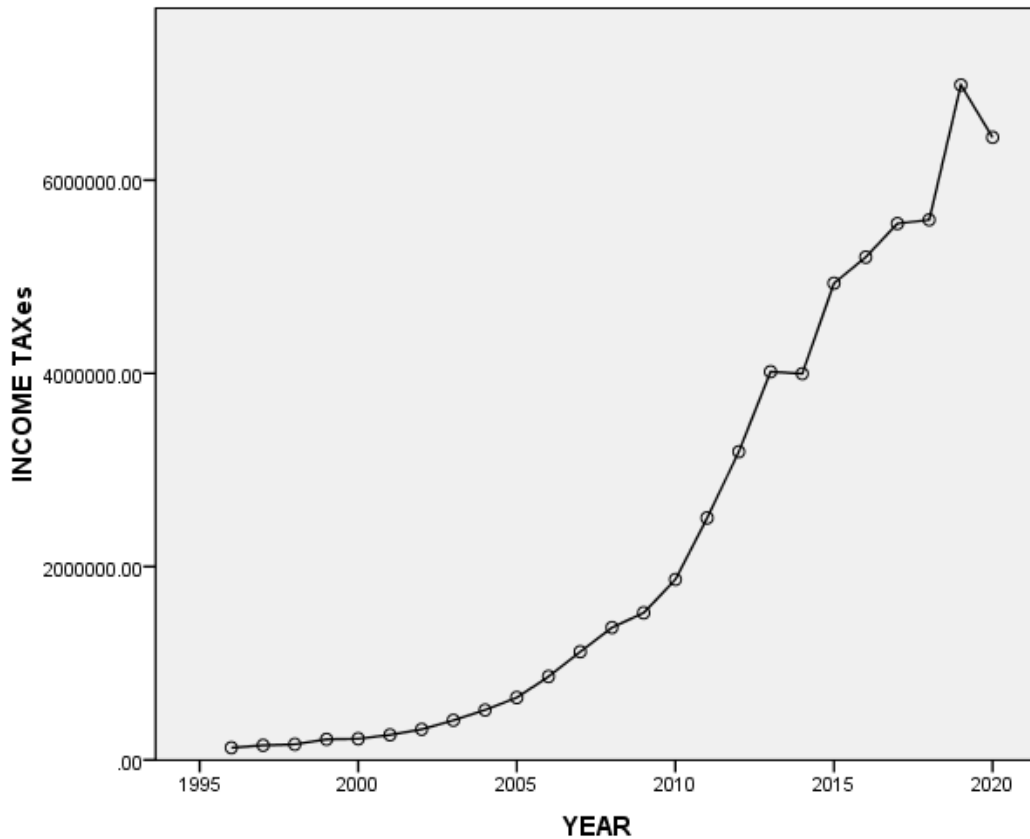
The import duty taxes in Tanzania between 1996 and 2020 showed an upward curve, with the taxes increasing marginally between 1996 and 2006. After that, the taxes increase gradually to 2013. From there, the import taxes increased sharply to 2020. This shows that between 1996 and 2020, Tanzania experienced increasing import duty taxes.

Figure 4.4: Excise Duty



The study required establishing the trend of excise duty taxes in Tanzania. From figure 4.4, the country experienced constant excise duty taxes between 1996 and 1999 before a marginal increase in 2005. Between 2005 and 2014, the excise duty increased gradually before a sharp increase in 2011 through 2014 when the taxes experienced a dip. From 2015 to 2020, excise duty taxes increased gradually. The trend shows that the excised duty in Tanzania generally increased between 1996 and 2020.

Figure 4.5: Income Tax



Regarding income tax, figure 4.5 shows a positive trend between 1996 and 2020. The taxes showed a marginal increase between 1996 and 2001 before a gradual increase in 2010. In 2010 the taxes showed a sharp increase before slowing down in 2013 through 2014. The taxes showed a sharp increase between 2014 and 2015 in 2018. The taxes showed a sharp increase between 2018 and 2019 and a sharp decrease in 2020. From the figure, Income tax in Tanzania increased between 1996 and 2020.

Figure 4.6: Value Added Tax

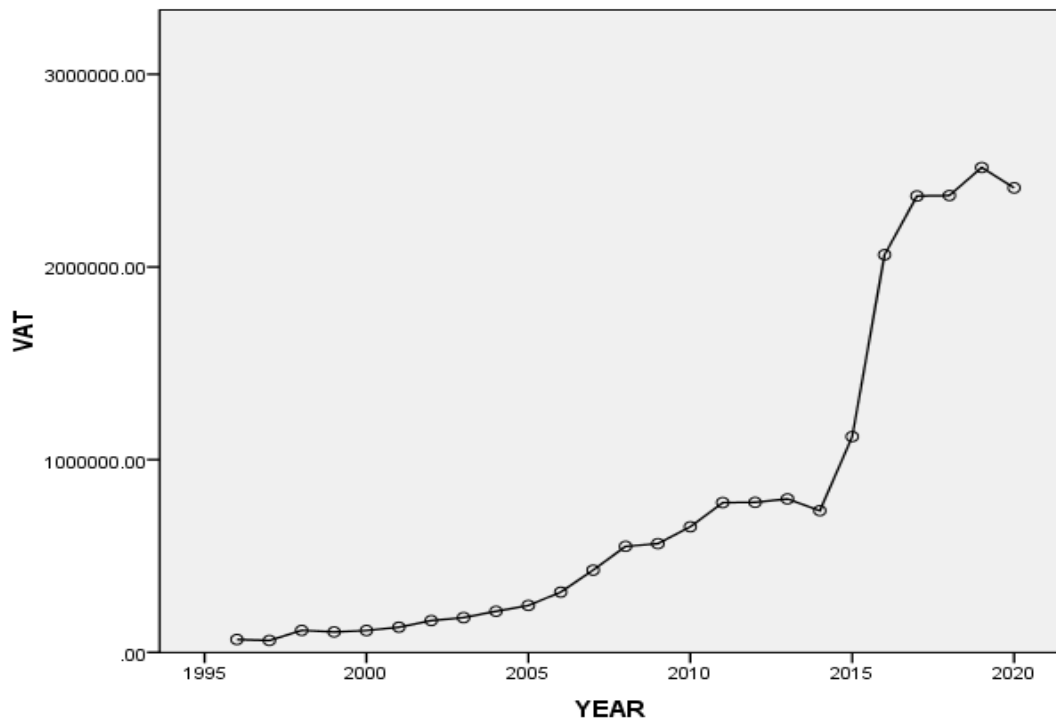
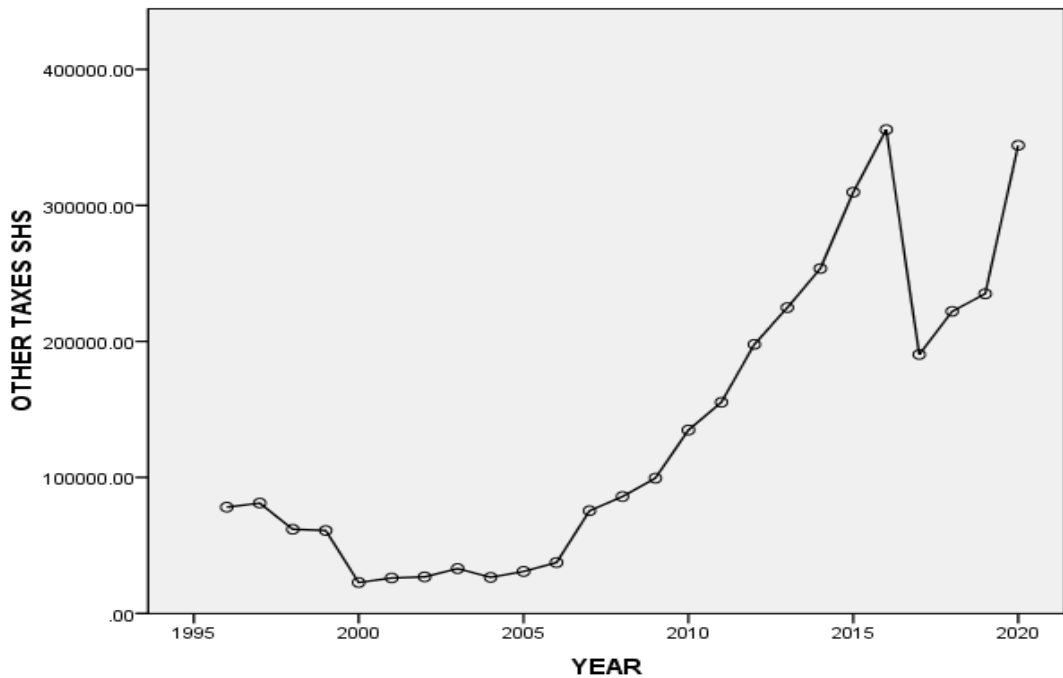


Figure 4.6 shows the movement of Value added tax (VAT) between 1996 and 2020. The taxes showed a gradual increase between 1996 and 2014. After that, the taxes increased sharply in 2017 and slowed down gradually to 2019 before dropping in 2020. The trend line shows that despite fluctuations, VAT in Tanzania increased between 1996 and 2020.

Figure 4.7: Other Taxes



The study sought to establish the movement of motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges. The findings, as shown in figure 4.7, show that these taxes showed a very high fluctuation between 1996 and 2020. Marginal increase in the taxes was seen between 1996 and 1997 with the taxes decreasing to 1998 where they stabilized. There was a sharp increase in the taxes between 1999 and 2000, after which a marginal increase was displayed through to 2006. From there, the taxes increased gradually to 2014, after which there was a sharp increase up to 2016 when a sharp decrease was experienced. However, there was a gradual increase in 2019, after which a sharp increase was experienced.

4.4 Diagnostic Tests

The researcher, in an attempt to verify a predictive model's underlying premises, undertook various diagnostic tests. They included hetero-scedasticity, Multi-co linearity and normality.

Figure 4.8: Hetero-scedasticity.

```

----- Breusch-Pagan and Koenker test statistics and sig-values -----
              LM           Sig
BP             1.874       .221
Koenker        9.821       .080
  
```

The Breusch-Pagan criterion were used to assess hetero-scedasticity and the uniformity of the error term variation. The results showed that the Breusch-Pagan statistics (1.874) had a significance value of 0.221. This means that the Breusch-Pagan statistics were insignificant as the significance value was more significant than 0.05. Hence, this hypothesis, which states that there's homo-scedasticity throughout the dataset, is not rejected by the investigator. Hence, we assume that in this research, dataset possesses no hetero-scedasticity.

Table 4.2: Multi-collinearity

Variable	Tolerance	VIF
Import duty	0.820	1.220
Excise duty	0.657	1.523
Income tax	0.559	1.790
Value Added Tax	0.653	1.531
Other taxes	0.509	1.963

To determine overall linearity of predictors, multi-co linearity was examined via VIF. The results postulate that the VIF values were less than 2. Hence, the variance of the

variables was not inflated at very high levels. The tolerance statistics were also less than 1; hence, there are no multi-co linearity issues in the data.

Table 4.3: Tests of Normality

	Statistic	df	Sig.
Economic Growth	.921	50	.003
Import Duty	.949	50	.032
Excise Duty	.948	50	.028
Income Tax	.961	50	.101
Value Added Tax	.969	50	.212
Other Taxes	.931	50	.006

via utilizing a Shapiro Wilk testing, the scholar determined if the data are normally spread. The data in our testing are regularly dispersed, according to the null hypothesis. Imagine that the p-value is lower than the selected alpha threshold (0.05). Within this instance, the null hypothesis is rejected and there is proof that examined data really aren't representative of a population with a normally spread populace: the results, income tax and value-added tax show p-values greater than 0.05. Hence, researcher does not reject the null hypothesis. This postulates that data for the variables were normally distributed. On the other hand, the variables of economic growth, import duty, excise duty and other taxes indicated p-values below 0.05. Hence, the researcher rejected the null hypothesis that data is normally distributed and concludes that data followed a normal distribution.

Table 4.4: Autocorrelation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.636 ^a	.404	.337	1.13872687	1.924

Whenever an error term inside a multivariate regression is closely linked across times, autocorrelation occurs. The autocorrelation was evaluated using Durbin Watson's statistics. From the table, the data showed a Durbin-Watson statistic of 1.924. The value is between 1 and 3, indicating that autocorrelation is not a problem in the data. According to Field (2009), numbers below 1 or higher over 3 constitute unquestionably reason for alarm.

4.5 Regression Analysis

Multivariate modeling was used in this investigation to examine effect of tax policy predictors and economic growth in Tanzania between 1996 and 2020. The research used a statistical package for social sciences (SPSS V 25) to code and enter the data and generate the statistics. The model summary is presented in the model, and ANOVA and coefficients tables are shown in this section.

Table 4.5: Model Summary

Model Summary ^a				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636 ^a	.404	.337	1.13872687

a. Predictors: (Constant), Other Taxes, Value Added Tax, Import Duty, Income Tax, Excise Duty

The study used a correlation coefficient (R) to evaluate the relationship between tax policy variables and economic growth in Tanzania. From the model summary, the model showed an R-value of 0.636 indicating tax policy strongly correlate with economic growth (GDP) in Tanzania. To establish the contribution of import duty, excise duty, income tax, value added tax and other taxes to change in economic growth in Tanzania, the researcher looked at the coefficient of determination (R

Square). From the model, the R square is 0.404. This shows that tax policy contributed to a 40.4% change in economic growth in Tanzania between 1996 and 2020. Other factors other than tax policy contributed to the remaining change in economic growth in Tanzania.

Table 4.6: Analysis of Variance

ANOVA ^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.727	5	7.745	5.973	.000 ^a
	Residual	57.055	44	1.297		
	Total	95.782	49			

a. Predictors: (Constant), Other Taxes, Value Added Tax, Import Duty, Income Tax, Excise Duty

b Dependent Variable: Economic Growth

From the ANOVA table, the model showed an F-statistics of 5.973. This is greater than the critical F value of 2.427. In addition, F statistics showed a significance value of zero indicating significance, hence, the researcher can make conclusions based on the model's outcomes.

Table 4.7: Regression Coefficients

Coefficients ^a						
Model		Un-standardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.047	5.367		3.176	.003
	Import Duty	1.649	.659	1.402	2.501	.016
	Excise Duty	-1.057	1.170	-.967	-.904	.371
	Income Tax	2.068	.903	2.242	2.290	.027
	Value Added Tax	-1.858	.726	-1.724	-2.558	.014
	Other Taxes	-1.441	.307	-.940	-4.692	.000

a. Dependent Variable: Economic Growth

$$Y_t = \beta_0 + \beta_1 X_{1t} + \beta_2 X_{2t} + \beta_3 X_{3t} + \beta_4 X_{4t} + \beta_5 X_{5t} + \varepsilon$$

was fitted into;

$$Y_t = 17.047 + 1.649X_{1t} + 2.068X_{3t} - 1.858X_{4t} - 1.441X_{5t}$$

From the regression equation, holding the tax policy variables constant, the semi-annual economic growth of Tanzania would stand at 17.047%. A unit change in import duty would increase economic growth in Tanzania by 1.649 with a significance of 0.016. This shows that import duty has a positive and significant effect on the economic growth of Tanzania. On the other hand, Excise duty showed a regression coefficient of -1.057 and a significance value of 0.371. This indicates that excise duty has a negative but insignificant effect on the economic growth of Tanzania. It means that when the Tanzanian government increase excise duty, it will experience an insignificant reduction in economic growth.

Income tax reflected regression factor of 2.068 (p=0.027), indicating that income produces positive effect on economic growth of Tanzania. It means that when the

Tanzanian government increases their income tax levels, it will experience increased economic growth. Value added tax showed a regression coefficient of -1.858 and a significance value of 0.014. This shows that value-added tax has a negative effect that is not significant on the economic growth of Tanzania. It means that when the government increases their value-added tax, it will experience a reduction in its economic growth. Other taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges displayed a regression coefficient of -1.441 with significance value of 0.000. This indicates that other taxes have a significant and negative effect on the economic growth of Tanzania. This shows that when the government of Tanzania increases taxes like motor vehicle taxes, stamp duty, business licenses, export duty, fuel levy, and port charges, the economic growth will be affected negatively. The findings show that taxes influence the economic growth of a country differently.

4.6 Discussion of Findings

From the model summary, the tax policy variables (import duty, excise duty, income tax, value added tax and other taxes) had a strong relationship with economic growth (GDP). They contributed 40.4% to the change in economic growth, indicating that tax policy influences economic growth. The findings are consistent with Karumba (2016), who found that taxes influenced the economic development of a country. This shows that tax policy is a critical factor in a nation's economic growth (GDP).

From the regression equation, import duty significantly positively affected economic growth. This indicates that when a country increases import duty, there would be a positive effect on economic growth. The outcomes concur with those of Gale and

Samwick (2014), who found that import duty positively affected economic growth. The findings, however, differ from the findings of Al Haq and Akram (2009), who found that taxes had no bearing.

Excise duty showed a negative regression coefficient which was insignificant at the 5% significance level. This indicates that excise duty possesses a negative effect on economic growth. If excise duty change, the country is expected to experience a reduction in its economic growth. Karumba (2016), who found that taxes had a negative effect on economic growth, had similar outcomes. The findings, however, differed from those of Gale and Samwick (2014), who established no effect.

Income tax had a positive regressions coefficients compared to economic growth. This indicates that income tax positively affects the economic growth of Tanzania. The findings concur with Gale and Samwick (2014), who found that income tax significantly affected economic growth. The findings differ from the findings of Ngasamiaku and Sende (2020); and Khumbuzile and Hlalefang (2018), who found that income tax had a negative effect on economic growth.

Value added tax showed a negative significant regression coefficient with economic growth. This shows that value-added tax had a negative effect on economic growth in terms of the GDP of Tanzania. It means that when the government increases their value-added tax, it experiences a reduction in its economic growth. The findings are similar to findings of Karumba (2016), who found that taxes displayed negative effect on economic growth. However, the findings differ from those of Gale and Sam wick (2014), who found that value-added tax had no significant effect on economic growth.

Other taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges displayed a significant negative regression coefficient with economic growth. This indicates that other taxes have a significant but negative effect on economic growth of Tanzania. This shows that economic growth will be negatively affected when the government increases motor vehicle taxes, stamp duty, business licenses, export duty, fuel levy, and port charges. The outcomes are similar to Karumba (2016), who found that taxes possessed negative effect on economic growth. However, they differed from those of Al, Haq and Akram (2009), who found that taxes had no impact on economic growth.

CHAPTER FIVE:

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This part summarizes findings, gives a conclusion, recommends, and suggests areas for further research. These were grounded on research objective: to establish the effects of the tax policy on Tanzania's economic growth.

5.2 Summary

The research adopted descriptive and regression statistics in data analysis and presentation. The study was based on semi-annual data analyzed using SPSS V25, which generated the statistics for interpretation. From the descriptive statistics, economic growth (GDP) showed a mean of 5.8%. The worst performance of Tanzania between 1996 and 2020 was shown by 2% of semi-annual GDP. In the same period, import duty showed an average of 1032.903 billion Tanzanian shillings semi-annually. The semi-annual excise duty showed a mean of 501.684 billion shillings between 1996 and 2020. Income tax, however, showed a semi-annual mean value of 1163.430 billion Tanzanian shillings within a similar period. Although, value added tax showed a semi-annual mean of 396.794 billion shillings. Other taxes like Motor vehicle taxes, stamp duty, Business license, export duty, fuel levy, and port charges showed a mean of 67.397 billion shillings semi-annually between 1996 and 2020.

The economy showed a very high fluctuation between 1996 and 2020. Generally, economic growth in Tanzania increased between 1996 and 2020 despite the fluctuations within the period. The import duty taxes in Tanzania between 1996 and 2020 showed an upward curve, with the taxes increasing gradually in 2013 before a sharp increase in 2020. This shows that between 1996 and 2020, Tanzania experienced increasing import duty taxes. From the findings, the country experienced a gradual increase in excise duty between 1996 and 2020. The income tax findings showed a positive trend between 1996 and 2020 when the taxes increased. On the movement of value added tax between 1996 and 2020, the taxes gradually increased between 1996 and 2014. After that, the taxes increased sharply in 2017 and slowed down gradually to 2019 before dropping in 2020. The trend line shows that VAT in Tanzania increased between 1996 and 2020 despite the fluctuations within the period. On the movement of motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges. The study found that these taxes showed a very high level of fluctuation between 1996 and 2020 despite a general increase in the taxes.

From the model summary, the study found that the tax policy variables (import duty, excise duty, income tax, value added tax and other taxes) had a strong relationship with economic growth (GDP). The study also found that tax policy was not an important factor influencing economic growth since they contributed approximately 40% to the change in economic growth. From the regression equation, holding the tax policy variables constant, the semi-annual economic growth of Tanzania would be positive and stand at 17%. This indicates that the tax policy negatively influences on economic growth. Otherwise, the constant would have been negative.

From the regression coefficients, import duty exhibited a significant positive coefficient against economic growth. This indicates that import duty has a positive effect on the economic growth of Tanzania. However, excise duty showed negative but insignificant regression coefficients with economic growth. Income tax, on the other hand, exhibited a positive significant coefficient against economic growth postulating that income tax positively affected the economic growth of Tanzania. However, other taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges displayed a negative significant regression coefficient against economic growth. This indicates that motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges negatively affected economic growth of Tanzania.

5.3 Conclusions

From statistics, Tanzania's economic growth averages about 6% of GDP. The study found that the constant term of the regression analysis was positive, indicating that if the taxes were not changing, the economy would show a high GDP rate of about 17%. Therefore, the study concludes that tax policy negatively influences Tanzania's economic growth.

Import duty possessed positive and significant regression coefficient against economic growth. Therefore, this study concludes that import duty positively affects the economic growth of Tanzania. This means an increase in import duty taxes increases economic growth. The study showed that excise duty had a negative and insignificant regression coefficient indicating that the change in excise duty would not significantly affect economic growth. Therefore, excise duty does not affect the

economic growth of Tanzania. This means that even if the Tanzanian government increased the excise duty, the economic growth would not be significantly affected.

Income tax exhibited positive and significant coefficient against economic growth. Hence the study concludes income tax positively affects the economic growth of Tanzania. Therefore, an increase in income tax by the government of Tanzania would positively influence its economic growth.

Value added tax had a negative and significant regression coefficient against economic growth. Therefore, the study concludes that value-added tax negatively affects the economic growth of Tanzania. This indicates that an increase in VAT would reduce the country's economic growth. Taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges exhibited negative regression coefficient which was significant against economic growth. Therefore, motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges have a negative effect on the economic growth of Tanzania. This means that if the government increases such taxes, the country will experience a reduction in economic growth. The findings show that taxes influence the economic growth of a country. Hence, we conclude that tax policy influences the economic growth of Tanzania.

5.4 Recommendations

The Tanzanian government ought to come up with a feasible tax policy. This would enable the country to enhance its economic growth through effective tax management. The government also ought to develop taxation policies which would optimally increase import duty. This would, in turn, improve the country's economic growth

since import duty positively affected Tanzania's economic growth. Hence, increased import duty would enhance economic growth through increased GDP.

The study found that excise duty exhibited negative but insignificant effect on the economic growth of Tanzania. Hence, the study recommends that the government relooks the excise duty provisions and reviews them by reducing the excise duty charges. This should be done to get an optimal excise duty that would positively influence the GDP.

Income tax exhibited positive though significant effects on economic growth of Tanzania. The government of Tanzania should review their policy by increasing the income tax, which would improve economic growth. The government should also look at the sectors where the income tax is contributing to the economic growth and align the rates with increasing the country's GDP.

Value added tax had a negative and significant regression coefficient against economic growth. The government ought to reduce value-added taxes charged to businesses and individuals while streamlining the tax policies. This would reduce negativity in effects relating to VAT on economic growth while increasing significance of its effect.

The study found that taxes like motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges exhibited negative noteworthy regressions coefficient against economic growth. Therefore, government ought to reduce motor vehicle taxes, stamp duty, business license, export duty, fuel levy, and port charges. This can be done by a downward review of the taxes, which would encourage more

taxpayers to comply and the country experience increased tax payers. This would lead to increased GDP and, in turn, improved economic growth.

5.5 Limitations

The study sought to establish the effect of the tax policy on Tanzania's economic growth. The parameters embraced in the survey limited survey. The investigation was grounded on tax policy measures of import duty, excise duty, income tax, value added tax and other taxes against economic growth. The measurement of the variables also limited the study. Where different variables and measures are adopted, the results may be different.

The research was based on the period-1996 and 2020. This created a limitation in this survey. A different period may give differing results. This is due to the changing economic conditions, which may alter the outcomes. The period may also create a historical challenge for data for this research.

The data also limited the research. The study adopted semi-annual secondary data, which may suffers the historical bias, which may create challenges. The most recent data were used for analysis to overcome the historical nature. It was also hard to verify the validity of the data. To overcome this, the researcher used data from the World bank published GDP, Bank of Tanzania and Tanzania Bureau of statistics which has published economic data relating to the government of Tanzania on taxation.

5.6 Suggestions for Further Studies

The investigation experienced a limitation relating to variables. Hence, research recommends similar research based on other measures of tax policy other than the ones used in this study. Similar studies centered on other variables relating to economic growth in Tanzania. This would enable readers to compare results.

The period adopted by the researcher limits the study. The research focused on the period between 1996 and 2020. The study recommends a similar study adopting a shorter or a more extended period to enable the reader to compare results. Other researchers can focus on a period of like 50 years or 10 years, enabling readers to see how tax policy would affect economic growth.

The data limited the study. This research was based on secondary data. Adoption of a mix of both primary and secondary data is recommended for further research. To overcome the historical nature of secondary data, other researchers can undertake similar research by adopting the most recent data (like the last 10 or 5 years). The study also adopted semi-annual data. Other researchers should use quarterly or annual data for the comparison of results.

REFERENCES

- Abu Bakar, J. & Abdul, G. I. (2017). Tax rate and its determinants: An opinion from Ibn Khaldun. *International Journal of Academic Research in Business and Social Sciences*, 7(4): 881-889.
- Adeyeye G. B. (2019). *Improving tax administration through technology and innovation in Nigeria*. Annals of SpiruHaret University.
- Barro, R. J., (1997). *Determinants of economic growth: A cross-country empirical study*. MIT Press: Cambridge, MA.
- Bengos, M. & Sanchez-Robles, B. (2003). Foreign Direct Investment, economic freedom and growth: New evidence from Latin America. *European Journal of Political Economy*, 19(3): 529-545.
- Bird, R. M. (2007). *Tax challenges facing developing countries*. Unpublished Doctoral Thesis, University of Toronto.
- Bird, R. & Oldman, J. (1990). *Taxation in Developing Countries*. Baltimore: Johns Hopkins University Press.
- Bird, R. M. & Zolt, E. M. (2008). Technology and taxation in developing countries: From hand to mouth. *National Tax Journal*, 61(4): 791-821.
- Boskin, M. (1976). *Optimal tax theory: Econometric evidence and tax policy*. National Bureau of Economic Research, Inc, NBER Working Papers.
- Charles River Associates, (2003). *Method of determining economic effect of hypothetical tax policy change*. Massachusetts.
- Creswell, J.W. (2015). *A concise introduction to mixed methods research*. Sage Publications
- Devereux, M. & Griffith, R. (2002). *Evaluation of tax policy for location decision*. Institute for Fiscal Studies and Centre for Economic Policy Research, 90-98: Go swell Rod, London EC IV 7RR, UK.
- Frank, H. (1989). *General and Industrial Management*. London, United Kingdom.
- Gale, W. G. & Samwick, A. A. (2014). *Effects of income tax changes on economic growth*. Economic Studies at Brookings.
- Gall, M.D., Gall, J. P., & Borge, W. R. (2006). *Educational research: An introduction*. (8th Ed.), New York; Pearson.
- Gordon, H. R. (2010). Taxation and corporate use of debts: Implication for tax policy. *National Tax Journal*, 63(1): 151-174.

- Grewal, D., Levy, M., & Lehmann, D. (2004). Retail branding and customer loyalty: An overview. *Journal of Retailing* 80 (10): 101-116.
- IMF, (2015). *IMF policy paper: Fiscal Policy and Long-term Growth*. International Monetary Fund: Washington, DC.
- IMF, (2018). *IMF country report No. 18/11- 2018 article IV consultation*. International Monetary Fund: Washington, DC.
- Islahi, A. (2015). Ibn Khaldun's theory of taxation and its relevance today. *Turkish Journal of Islamic Economics*, 2(10): 1-19.
- James, S. & Edward, A. (2008). *An annotated bibliography of tax compliance and tax compliance costs*. University of Exeter, Streathan Court Rennes Drive, UK.
- James, S. & Nobess, C. (2009). *Economics for taxation (9th ed)*. Birmingham Fiscal Publication
- Karumba, A. K. (2016). *Impact of taxation on economic growth in Kenya*. Unpublished Masters of Economics Research Paper, University of Nairobi.
- Khumbuzile, D. & Hlalefang, K. (2018). *The impact of taxation on economic growth in South Africa*. MPRA Paper No. 86219.
- Kim, S. & Kim, T. (2019). Tax reform, tax compliance, and state building in Tanzania and Uganda. *Africa Development*, XIII (2): 35-64.
- Kothari, C.R. (2004). *Research methodology: Methods and techniques (2nd Ed.)*. New Age International Publishers, New Delhi.
- Love, I. & Lea, Z. (2006). Financial development and dynamic investment behavior: Evidence from panel VAR. *The Quarterly Journal Review of Economics and Finance*, 46: 190-210.
- Macharia, J. (2004). *The effect of tax evasion on tax revenues in Kenya*. Unpublished Masters of Business Administration Research Project, University of Nairobi.
- Mankiw, G. N., Weinzierl, M. & Yagan, D. (2014). *Optimal taxation in theory and practice*. Unpublished Economics Doctoral Thesis, Harvard University, Cambridge, Massachusetts.
- Maskaeva, A. I., & Mmasa, J. J., Lema, N. C. & Msafiri E. M. (2019). *The impact of fiscal policy on income distribution in Tanzania: A computable general equilibrium analysis*. Partnership for Economic Policy, Working Paper 2019-07.
- Mishkin, F. (2004). *The economics of money, banking, and financial markets (7th Ed)*. Boston: The Addison-Wesley Publishers.

- Mosiori, M. (2014). *The relationship between foreign direct investments and economic growth in Kenya*. Unpublished Master of Business Administration Research Project, University of Nairobi.
- Nassaji, H. (2015). Qualitative and descriptive research: Data type versus data analysis. *Language Teaching Research*, 19(2): 129–132.
- Ngasamiaku, W. & Sende, N. (2020). The Impact of government spending and taxation on economic growth in Tanzania. *African review (Dar es Salaam, Tanzania)*, 23: 103-120.
- OECD, (2014). *Fundamental principles of taxation in addressing tax challenges of the digital economy*. OECD Publishing Paris.
- Omoke, J. (2010). *The relationship between stock market development and economic growth in Kenya*. An unpublished MBA project, University of Nairobi.
- Osoro, N. (1994). *Taxation in Tanzania: Motivations, directions, and future prospects*. Development Challenges and Strategies for Tanzania, Dar-es-Salaam University Press.
- Otieno, S. A. (2015). *Lending interest rate and economic growth in Kenya*. Unpublished Master of Business Administration Research Project, University of Nairobi.
- Pandda, H. U. I. I. & Akram, N. (2009). The impact of tax policies on economic growth. *Southern Asian Economics*, 48(4): 46-74.
- Riera-Crichton, D., Vegh, C. A. & Vuletin, G. (2016). Tax policy and the macroeconomy: Measurement, identification, and non-linearities. *Ensayos sobre Política Económica*, 35(82): 10-17.
- Rocco, T. S. & Plakhotnik, M. S. (2009). Literature reviews, conceptual frameworks, and theoretical frameworks: terms, functions, and distinctions. *Human Resource Development Review*, 8(1): 120–130.
- Romer, P. M. (1986). Increase returns and Long run Growth. *Journal of Political Economy*, 94: 1002-1037.
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), S71–S102.
- Schneider, L. V. A. & Moore, M. (2003). *Pro-poor tax reform in Latin America: A critical survey and policy recommendations*. IDS, Sussex, March.
- TRA (2011). *Annual report 2010/2011*. Tanzania Revenue Authority
- UIHaq, I. P. & Akram, N. (2009). The Impact of tax policies on economic growth: Evidence from South-Asian economies. *The Pakistan Development Review*, 48(4): 961–971.

World Bank Group (2020). *Annual report 2020: Ending Poverty*. World Bank Group.

World Bank Group (2020). *Annual report 2020: Supporting countries in unprecedented times*. World Bank Group.

APPENDICES

Appendix I: Data Collection Form

Year	Semi Annually	Economic Growth	Import Duty	Excise Duty	Income Tax	Indirect Tax	Other Taxes
		%	Tsh. Millions	Tsh. Millions	Tsh. Millions	Tsh. Millions	Tsh. Millions
1990	H1						
	H2						
1997	H1						
	H2						
1998	H1						
	H2						

-----	H1						
	H2						
2020	H1						
	H2						

Appendix II: Research Data

YEAR	HALF	GDP %	IMPORT	EXCISE	INCOME	VALUEADDED	OTHER
			DUTY	DUTY	TAX	TAX	TAXES
			TSH. M	TSH. M	TSH. M	TSH. M	TSH. M
1996	H1	4.484	62876.400	28264.403	36744.914	16763.300	35161.155
	H2	4.595	94314.601	65950.273	89961.686	50289.900	42974.745
1997	H1	3.495	76190.419	30499.786	30223.587	15439.373	36505.095
	H2	3.540	109639.871	71166.168	120894.348	46318.120	44617.338
1998	H1	3.719	87464.348	25594.639	32371.284	28613.244	27843.647
	H2	3.689	131196.522	59720.823	129485.136	85839.732	34031.124
1999	H1	4.794	103616.772	27505.649	42755.670	26507.488	27447.609

	H2	4.917	149107.062	64179.848	171022.680	79522.464	33547.078
2000	H1	4.490	138849.077	46623.459	43836.831	28368.020	10239.108
	H2	4.558	208273.615	108788.071	175347.323	85104.061	12514.466
2001	H1	6.171	150210.665	53734.231	51955.592	32724.064	11740.648
	H2	5.973	216156.810	125379.872	207822.368	98172.192	14349.681
2002	H1	7.013	172635.158	56842.680	63367.440	41290.341	12101.288
	H2	7.170	258952.737	132632.920	253469.760	123871.022	14790.463
2003	H1	6.637	213688.754	64656.600	82098.828	45156.379	14840.059
	H2	6.693	307503.329	150865.400	328395.312	135469.137	18137.850
2004	H1	7.480	253359.991	72134.248	103323.856	53351.964	11939.500
	H2	7.524	380039.987	168313.246	413295.424	160055.892	14592.723

2005	H1	7.341	314942.939	79185.951	129142.091	60897.628	13888.906
	H2	7.596	453210.570	184767.219	516568.366	182692.883	16975.330
2006	H1	6.577	334469.400	147468.949	172714.423	78231.000	16839.981
	H2	6.502	501704.100	344094.213	690857.693	234692.999	20582.199
2007	H1	6.709	449230.172	199525.791	223868.532	106777.100	33975.394
	H2	6.806	646453.174	465560.179	895474.127	320331.300	41525.481
2008	H1	5.645	520327.086	229929.437	273963.127	137595.759	38677.889
	H2	5.716	780490.630	536502.019	1095852.509	412787.277	47272.975
2009	H1	5.279	589530.635	252839.448	304515.444	141069.631	44760.009
	H2	5.248	848348.963	589958.711	1218061.774	423208.892	54706.677
2010	H1	6.285	704608.517	284002.596	373519.932	162928.837	60685.515

	H2	6.377	1056912.776	662672.723	1494079.729	488786.512	74171.185
2011	H1	7.612	852637.347	312470.126	500815.543	194291.873	69868.714
	H2	7.731	1226965.938	729096.960	2003262.171	582875.618	85395.095
2012	H1	4.294	930473.328	379868.601	637892.190	194672.032	89017.788
	H2	4.700	1395709.992	886360.068	2551568.760	584016.095	108799.519
2013	H1	6.752	1204258.950	455957.160	803335.704	199123.470	101181.943
	H2	6.799	1732958.002	1063900.039	3213342.814	597370.410	123666.819
2014	H1	6.701	1317521.052	525916.540	799352.551	183801.275	114100.232
	H2	6.752	1976281.577	1227138.592	3197410.204	551403.826	139455.840
2015	H1	6.121	1702179.724	646965.579	986557.234	279984.794	139364.213
	H2	6.200	2449478.140	1509586.352	3946228.937	839954.383	170334.039

2016	H1	6.860	1835486.059	636093.464	1040499.595	515809.262	160038.173
	H2	6.874	2753229.089	1484218.084	4161998.379	1547427.785	195602.211
2017	H1	6.797	2099587.810	665306.677	1110026.891	592069.231	85645.997
	H2	6.775	3021358.068	1552382.246	4440107.563	1776207.694	104678.441
2018	H1	5.407	2086545.461	720987.728	1117627.510	592707.765	99948.320
	H2	5.488	3129818.191	1682304.699	4470510.040	1778123.295	122159.058
2019	H1	5.700	2310232.928	759582.855	1396829.450	629104.783	105756.048
	H2	5.900	3324481.530	1772359.995	5587317.798	1887314.348	129257.392
2020	H1	2.096	3588996.846	823298.046	1288366.033	602645.246	154853.947
	H2	1.896	2392664.564	1921028.773	5153464.132	1807935.738	189265.935