IMPACT OF TAXATION ON ECONOMIC GROWTH IN KENYA

BY

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

NOVEMBER, 2022

DECLARATION

This Research Project is my original work and has not been presented for a Master's degree in any other University or higher learning Institution.

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This project has been submitted for examination with my approval as the University Supervisor

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ACKNOWLEDGEMENT

First and foremost, my deepest appreciation goes to my supervisor Prof. Mwangi W. Mirie for guiding me throughout the research process. I salute you Sir. Your great insights and inputs made this paper a desirable output. I also appreciate my course colleagues 2019/20, Bilha Nyambura & Winfred Karimi. I really admired the great teamwork spirit exhibited throughout the course and appreciate your inputs and assistance. I sincerely appreciate KNBS, Central Bank of Kenya and Kenya Revenue Authority for enabling me obtain sufficient data to carry out my research. This research would not have been possible without information obtained from these sources. The great all-rounded support I received from my entire family cannot go unnoticed. My husband Godfrey Mwangi, my parents Mr. & Mrs. James Mwangi, my siblings Maina Mwangi, Njeri Mwangi and Kimunya Mwangi. The support was unmatched, awesome and beyond any measure of love. I owe great appreciation to my employer, Asal Consulting for the rare opportunity they accorded me to pursue my post graduate studies. The skills I have acquired so far have transformed my capabilities and I will employ them to improve my performance in the roles allocated. My special appreciation goes to the Almighty God as he gave me the strength much needed throughout my MBA course and more specifically towards initiation and completion of my research project.

DEDICATION

This research paper is specially dedicated to my mum Mary Wairimu Mwangi for her constant support throughout the project. Her prayers, constant calls and reminders on tasks under this project has kept me going and enabled me complete my project on time. God bless her.

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LIST OF ABBREVIATIONS

ANOVA	Analysis of Variance
ARDL	Auto-Regressive Distribution Lag
CGT	Capital Gains Tax
CIT	Companies Income Tax
GDP	Gross Domestic Product
IMF	International Monetary Fund
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
OECD	Organization for Economic Co-operation and Development
PAYE	Pay As You Earn
R&D	Research and Development
SPSS	Statistical Package for the Social Sciences
VAT	Value Added Tax
VIF	Variance Inflation Factor

ABSTRACT

Impact of taxation on economic growth is a big area of interest for policymakers and tax specialists, which has also piqued the interest of researchers and academics over the years. Objective of the study was to identify the impact of taxation on economic growth in Kenya. The theories that guided this study were the endogenous growth theory and the optimal tax theory. The study used a longitudinal research design in determining the impact of taxation on economic growth in Kenya. Secondary data was used for the years 1970 to 2020, a period of 51 years. The analysis was done by use the of SPSS. To identify the level of association of the study variables, the study employed regression analysis. The results from the regression coefficients show that money supply and FDI had a significant positive impact on growth of the economy. However, trade showed a negative and significant impact on the growth of economy. On the other hand, Inflation and public investment had an insignificant positive impact on economic growth. The results further showed that taxation had a negative but insignificant impact on economic growth similar to interest rate. The study concludes that money supply and foreign direct investment has a positive and significant impact on growth of the economy. It also concludes that trade has a negative impact on economic growth. On the other hand, the study concludes that taxation, public investment, inflation, and interest rate has an insignificant effect on growth of the economy. The study recommends policies that would increase money supply and FDI while reducing restrictions to trade.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The role of the government in nations is to ensure the well-being of their citizens by providing public goods and services. In order to perform such a role, they need financing. Taxation is the main source of financing public expenditure in governments whether local, regional or central (Page & Smetters, 2016). Besides, as a source of financing government operations, taxes may be applied for a large range of functions ranging from encouraging and discouraging certain activities/behavior in the economy (regulatory role), protecting domestic infant industries, as a tool for economic policy and as well as a tool for achieving social equity among the residents of a nation (Gravelle, 2014). Huang and Frentz (2014) posit that taxes have three major roles in the economy; these include the allocative role, distributive role, and the economic stabilization role.

The theories that guided this study are the optimal taxation and endogenous growth theory. The optimal taxation theory is credited to Ramsey (1927) and Mirrlees (1971). This theory postulates that any system of tax selected ought to be able to make the best use of a social welfare role although faced with a number of limitations. The endogenous growth theory by Romer 1986 argues that factors that cause economic growth are internal to the economy and not external. According to Romer, economic growth is generated from increased investment in human capital which results to efficiency in production and new technology.

In Kenya, taxation main goal is to finance public expenditure (Wawire, 2016). Other objectives achieved through taxation include promotion of equity, and addressing

economic and social concerns. Taxes should be developed to reduce costs on compliance by taxpayers as well as administrative costs incurred by the Government and it should also discourage avoidance and evasion of tax (Njogu, 2015). Also, taxes affect saving & investment decisions are they are seen to raise the cost of investments and thus discouraging individual and corporates to engage in investment activities due to reduced rates of return on those investments. Policy makers are greatly concerned with taxation impact on growth of the economy and from an economic perspective according to Engen and Skinner (1992), there exists an inverse relation between taxation and Gross Domestic Product. Therefore, this study sought to establish the impact of taxation on economic growth in Kenya.

1.1.1 Taxation

As per Omotoso (2001), tax is referred to as charges enforced by governments on income and assets earned/owned by persons and corporates. Taxation is by far the most vital basis of income and therefore acts as primary means of financing Public Expenditure (Edelberg, 2016). Contemporary public finance is all about taxation. Because of the pervasiveness of taxation, it can be utilized as a tool to achieve particular societal goals. Income taxes, for example, are utilized to objectively grow revenue by differing tax rates by earnings classes due to their progressive character. The revebue generated in this way is subsequently utilized to transfer income to lower income persons, eliminating income and wealth disparities (Mcnabb, 2018).

Taxation is also used to stabilize the economy as part of fiscal policy. When the economy is developing too quickly, increasing taxes might restrict spending and cause economic stalling. Reduced taxes, on the other hand, can help to stimulate growth of economy by

increasing the amount of money available for consumption and investment (Atems, 2015). However, when the government spends much than it gets form taxation, it is in deficit and will have to borrow money to keep running until taxes can be raised to bring the budget back into balance (Mdanat, 2018).

Despite disparities in taxation between nations, many nations depend on three main tax revenue bases: corporate and personal income taxes, contributions on social security and goods and services taxes (Atems, 2015). Globally, in the USA the different types of taxes include income, sales and capital gains among others. The income tax rates in the United States ranges between 10% to 37%, which kick in at certain income thresholds, and a corporate income tax rate of 21%. The greatest payroll taxes in the United States are a 12.4% tax to support social security and a 2.9% tax to fund Medicare, for a total rate of 15.3%, and a 9.23 percent sales tax (Internal Revenue Service, 2020). Capital gains (and losses) are often bundled together with operations income in China and taxed at the rate of 25% of corporate income. Expenses, charges, and losses incurred in creating taxable income are deducted up to a certain amount: Expenses on entertainment are deducted up to 0.5% of the whole income, advertising expenses are deductible up to 15 percent of total revenue, 30 percent in specific situations, and charitable contributions are deductible up to 12 percent of total income (State Administration of Taxation, 2020).

In Africa, corporate tax ,income tax and value added tax (VAT) are mostly the main sources of revenue in South Africa. The VAT rate in SA is presently 15 percent on many goods and services and on products imported, capital gains are taxed at 22.4% and businesses with annual turnovers under ZAR 1 million are taxed at rates varying between 0% and 3% of turnover (South African Revenue Service, 2020). In Nigeria, the main taxes include CIT

charged at a rate of 30 percent of total profits of a firm minus allowable deductions, capital gains tax (CGT) charged at 10 percent of gains gotten form disposal of a chargeable assets and VAT at 5 percent on the goods and services supply (Federal Inland Revenue Service, 2020).

1.1.2 Economic Growth

This is an investment in the growth of the economy, also the success and citizens quality of life (Gale & Samwick, 2014). Economic growth is a coordinated effort on the part of a country's competent government to sway investments by the private sector towards prospect that could result to economic growth in long run. Sustained growth of the economy can provide adequate income for workforce locally, ensure successful business undertaking and revenue from taxes to ensure infrastructure development and support the economy growth (Das, 2017).

Economic growth compels efficient institutions on the bases of diversity, openness, trust, openness and appreciation in the achievement of mutual benefits for the public & private sectors. The growth of the economy is vital for protecting the economic future and creating the environment for success (Stoilova, 2017). Gross domestic product (GDP) is the main method used to track a countries' economic growth (Szarowska, 2014). Economic growth is measured in countries around the world as the percentage alteration in GDP from one year to the next. It determines whether or not output has increased or decreased, and by how much (Das, 2017).

1.1.3 Taxation and Economic Growth

In their evaluation, Mertens & Olea (2018) investigated marginal tax rates effects on personal income and noted that low marginal rates led in both upsurges in real GDP and decreases in unemployment. Zidar (2019) reviewed the federal tax burdens impact on growth of the economy and supply of labor in different income groups and situations and discovered that cuts on taxes positively affects the growth of economy two years after review of policy, however, cuts on tax on low and middle income taxpayer have a higher impact on growth compared to that of high income taxpayers. Ljungvist and Smolyansky (2018) investigated the effect of corporate tax changes on employment income, finding that a one-percentage-unit reduction in statutory company rates of tax results in .02% upswing in employment and 0.3% rise in wages.

Gunter (2019) evaluated the effects of VAT on economic growth and discovered that the effect is greatly non-linear: the effects are basically zero at low rates with small changes; however the damage on the economy increases with a high initial rate of tax and large changes in rate. Nguyen (2021) examined the effects of personal income, firm income, and consumption taxes, noting that cuts income tax, referred as the sum of person and firm income, had a significant impact on investment, GDP and private consumption. A rise of 0.78% in GDP is attained by reducing the average rate of income tax by a unit percentage.

Globally, in the United States, the tax-to-GDP ratio rose by 0.1% point from 24.4 percent in 2018 to 24.5 percent in 2019. In the United States, the tax to GDP ratio fell from 28.3% in 2000 to 24.5% in 2019. In the United States, the highest tax to GDP ratio was 28.3% in 2000, and lowest was 23.0 percent in 2009 (OECD, 2020). According to Nerre et al. (2014), the tax structure in Serbian has been steadily improving from 2000, with total revenue as a

GDP percentage increasing from 33% in 2000 to 42% in 2012. SA ratio on tax-to-GDP was 26.2% in the 2018/19 fiscal year, which was only slightly more than the 25.9% in 2017/18 (OECD, 2020).

1.1.4 Taxation and Economic Growth in Kenya

In Kenya, there are two tax types i.e direct and indirect taxes. The sums submitted to the government directly as income tax are referred to as direct taxes. VAT, excise duty, and custom duties are examples of indirect taxes paid when buying products and services (Kenya Revenue Authority, 2020). VAT is levied on products and services sold in Kenya or imported into the country. The standard VAT rate for all ordinary products is 16%. There are particular excise duty rates on all items, with the exception of food supplements and the sale of excisable services, which are now levied at 10% of their value. Import duty, excise duty, VAT, import declaration charge, and railway development levy are all examples of customs duties in Kenya. When products are imported, the following expenses apply, depending on the type of item. An import declaration fee (IDF) of 2.25 percent of the value of the commodity is due, with a minimum of ksh. 5000. A 1.5 percent railway development levy is also charged (KRA, 2020). In this study taxation was be measured in terms of personal taxes, excise duty, custom duty and VAT.

Kenya gained independence in 1963. Between 1963 and 1973, GDP increased at a yearly average proportion of 6.6 percent, and all through the 1970s, it increased at a standard proportion of 7.2 percent. Farming production increased by 4.7 percent each year over a similar period, thanks to reorganizing estates, disseminating novel crop strains, and opening up additional areas for agriculture. In the 1980s, GDP growth slowed to 4.2% every year, then to 2.2% every year in 1990s (Kenya National Bureau of Statistics (KNBS),

2001). Since independence between 1991 and 1993 Kenya had its poorest performance in economy. GDP growth slowed to a halt, while agricultural output fell by 3.9 percent annually. In August 1993, inflation hit a new high of 100%, and the budget deficit was more than 10 percent of GDP (KNBS, 2001). Kenya's real rate of GDP growth was an average of 4% per year from 1994 to 1996. However, in 1997, the economy started a duration of declining or stationary growth, partially owing to bad weather & lower economic activities in the run-up to the general elections in December 1997 (Jones et al., 2001).

Since the government reformed the KRA to enhance government revenues, updated banking financial regulations, writing off of bad debts, and ensuring that 30 percent of government tax revenues are used in the economy ventures development, economic growth was enhanced amid 2003 and 2008 (KNBS, 2013). Kenya's national debt had decreased from a higher of 80% of GDP in 2002 to a lower of 27% of GDP in 2005. From 2% in 2003 to 7% in 2007, the economy grew at a faster rate. Due to post-election violence in 2008, growth slowed to 1% before rebounding to an average of 5% between 2009 and 2013 (KNBS, 2013). However, the agriculture industry contracted by 2.7 percent in 2009 because of drought, worldwide financial crisis, high costs on input, and a drop in demand for certain exports from the nation. Gross Domestic Product growth on average was more than 5% amid 2013-2018. Some of the advancement is attributed to SMEs growth. In 2018 quarter one, Gross Domestic Product growth, was 5.7 percent, 6.0 percent in quarter two GDP was 6.0 percent and 6.2 percent in quarter three of 2018 (KNBS, 2018). The GDP was be utilized as a metric of economic growth in this research.

In Kenya, the ratio on tax to GDP decreased by 1.1% from 18.5% in 2017 to 17.4% in 2018. Comparatively, an average of 30 African nations rose by less than 0.1% point over the similar time period, reaching 16.5 percent in 2018. From 15.1 percent in 2010 to 16.5 percent in 2018, the 30 African nation's average rose by 1.4%. Kenya's ratio declined by 0.5% over the same duration, from 17.9% to 17.4%. Kenya tax to GDP ratio was the highest in 2014, 19.3 percent and lowest in 2020 16.1 percent (OECD, 2020)

1.2 Research Problem

The effect of taxation on economic growth is a major concern for tax specialists and policymakers; it has also piqued the interest of researchers and academics over the years. From a practical standpoint, tax policy is utilized for economic and social aims like allocation of resources through higher internal savings, price stability, indirect control of production and consumption levels using sales taxes, and rising economic growth (Egbunike, Emudainohwo, & Gunardi, 2018). For long, economists have had interest in the elements that cause variations in nations to grow at varied rates and accumulate varied amount of wealth. Nevertheless, numerous economists consent that taxation is one of the highly important elements determining a nation's productive capacity (Stoilova, 2017).

Kenya has enjoyed duration of sustained growth of the economy in the last decade, with an approximate annual growth rate in GDP of 6%. Kenya's economy has grown from a (nominal) GDP of 3.17 trillion Ksh. ($52 billion) in 2010 to KSh9.9 trillion ($154 billion) in 2019, moving the country from 85th to 61st in the global rank (KNBS, 2020). On taxation, Kenya tax revenue in financial year 2018/19 got a new record with Kshs. 1.5 Trillion in comparison to Kshs. 1.4 Trillion tax revenue in financial year 2017/18. Revenue increased by 11.3% in comparison to the prior year's 5.1% increase (KRA, 2019). In the

FY 2020/2021, the tax revenue was 93.7 Billion in comparison to Kshs. 84.7 Billion obtained in financial year 2019/2020 (KRA, 2021). Despite the improvement in tax collection, the government rate of borrowing is very high leading to high debt.

Kenya's total public borrowings has grown from 48.6% of GDP in 2015 to an approximate 69% in 2020. Out of 7.1 trillion Ksh total debt stock as of September 2020, external public debt was 51.4% (IMF, 2021). The country's high level of debt has serious implications for its debt sustainability and development. This is because of the fact that high debt results to raised taxation (Wawire, 2016). The challenges that the government faces in taxation in Kenya are that there is a huge informal segment in Kenya that is not subject to taxation, despite the fact that everyone ought to contribute to resource raising to finance the expenditure by the government and so ensure taxation equity. There is a high level of evasion on taxes, with the gap on tax in Kenya approximated to be more than 40%, as well as a lack of or low knowledge of laws about tax (Njogu, 2015).

Szarowská (2013) reviewed the economic function taxation effects on growth of economy in the European Union. The study discovered a positive significant impact of consumption taxes and a -ve effect of labor taxes on growth of GDP. Dladla and Khobai (2020) reviewed the taxation impact on South African economic growth. The results showed that taxes have a significant negative impact on growth of economy generally. Scarlett (2011) conducted research on taxation policies and growth of economy in Jamaica and discovered that raising indirect taxes income is much suitable to long-term economic growth.

Ali (2018) researched on tax revenues impact on growth of economy in Kenya. The outcomes showed that revenues positively and significantly impacted on growth of economy. Njoki (2013) researched on taxation and revenue stability in Kenya and found

that diversifying revenue does not necessarily result to improved revenue stability in Kenya. Kithinji (2019) researched on the effect of taxation on government expenditure in Kenya and established that government revenue influences government expenditure significantly. Njuru, Ombuki, Wawire, and Okeri (2013) investigated how tax affects private investment in Kenya. VAT & Income tax had a negative impact on private investment, whereas excise, amnesty taxes and import taxes had a positive impact.

Though the studies have focused on taxes on economic growth, their outcomes are varied. It is against this background that the study was done to get an answer on what is the impact of taxation on economic growth in Kenya.

1.3 Research Objective

The study objective was to determine the impact of taxation on economic growth in Kenya.

1.4 Value of the Study

The study would be important to the policy makers and the government. It would provide insights on the impact of taxation on Kenya's economic growth. The policy makers would understand how the different taxes which include personal taxes, excise duty VAT and custom duty affect the economy of the nation. This would help the policy makers to come up with strategies that would improve tax collection to enhance the growth of economy of Kenya.

The study would also be very helpful to academicians and researchers. It would enhance the understanding of the taxation impact on growth of economy. It will also add to the body of knowledge on taxation. The researchers would be able to use the study as a reference in their future related researches.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter covers literature review on the impact of taxation on economic growth. It entails the theoretical review, review on measures of taxation and evaluation of economic growth. It also entails literature review on taxation and economic growth.

2.2 Theoretical Review

This study was entrenched on the optimal tax theory and endogenous growth theory.

2.2.1 Optimal Tax Theory

This theory, as per Ramsey (1927) and Mirrlees (1971), focused on the maximum level and kind of economic reallocation. It aims to find out how a government can improve the social welfare using taxes and transfer while minimizing taxpayer sacrifice. Optimal tax theory, whether consciously or unconsciously, supports a resource equality conception of distributive fairness to a great level. The theory's principles, also, are based on efficiency, incentives, and the information that decisions convey on people welfare. The hypothetical decision maker is often treated as pragmatic in the optimal taxation literature which means the social services role is based on person's utility in the society. This literature makes use of a society welbeing role being nonlinear role of a person's utility in its most general assessments. Other research in this field, also, make the assumption that the only concern of a social planner is the average utility which necessitates social welfare role that is linear in individual's total utility (Mankiw, Weinzierl & Yagan, 2009).

To ensure that a social planner has an easier job, it is typically presumed that everyone shares similar preferences in areas like leisure and consumption within the community. The assumption on homogeneity is occasionally taken a pace further by making assumption the economy is full of identical persons. The social planner objective is to make a choice on a system of tax that optimizes the welfare of representative customer, understanding that the customer would respond to any incentives that are offered by the tax systems (Mankiw & Weinzierl, 2009).

2.2.2 Endogenous Growth Theory

The meaning of endogenous growth is that growth of the economy is generated within a system due to internal processes and not external processes. The introduction of the Rebelo (1991), Romer (1986), Barro (1990) and Lucas (1988) growth models, which essentially represent a novel theory of endogenous growth, has led to significant alterations in government's involvement in growth. The steady and transition state growth rates are endogenous in this theory, meaning that long-run rates of growth of the economy are also endogenous. Though the government can impact the growth, directly or indirectly, in all endogenous growth models, there are various elements that should be considered when estimating long-term growth. Therefore, long-term rates of growth can differ between countries, and convergence in per capita income is not required.

In this growth model, tax policy has coupled properties. It should intervene not just to correct Non-Pareto optimality situations, nevertheless also to hound active measures to ensure long-term economic growth (Arisoy & Unlukaplan, 2010). The spending by the government and policies of tax could have a long term and permanent effects on growth in this scenario. Long-term growth is influenced by the efficacy of resource utilization, level

of factor accumulation and technical progress pace, which are all influenced by the three primary fiscal tools of taxes, expenditure, and the aggregate budgetary balances. This model's economic implication is that in the near and the distant future, taxes and expenditure by the government can have a steady impact on output. Government tax reforms and policies on spending act as incentives for firms to put money in capital formation and R&D, leading in external effects that are beneficial to the rest of the economy.

2.3 Determinants of Economic Growth

Economic growth in a country entails higher productivity, political systems that reflect the preferences of its citizens as accurately as possible; the advancement of right to every social group and the chances to obtain them, and the right function of firms that can attend to highly technically and logistically compound tasks than (Pritchett, Woolcock, & Andrews, 2016). These procedures define the government ability to manage its economy, government, public administration and society (Mesquita, 2016). The GDP was used as a metric of growth of economy.

GDP is referred to the market value for every service and good officially recognized and created within a nation over a given time period. These comprise the government expenditures, investments, the public and private consumption, and exports minus imports that take place within in a specific territory (Feldstein, 2017). GDP is mainly utilized as a sign of a nation’s economic well-being and to assess the nation’s living standard (Charles & Klenow, 2016). It assesses the monetary value of ultimate services and goods created in a nation over certain duration. It a measure of each output produced within nation’s boarders (Coyle, 2014). GDP comprises produced commodities and services to be sold in

the marketplace and for personal consumption, like security and education services (Coyle, 2014).

2.3.1 Taxation

Taxation is a main revenue source for the government. Taxation is often used to attain more purposes, for instance equity and resolution of social and economic problems. They ought to be intended to lower taxpayer compliance costs and government managerial expenses while preventing tax evasion and avoidance (Sackey, 2014). Taxes, alternatively, have an impact on household decisions to invest in human capital, save and supply labor, and business decisions on production, job creation, investment and innovations and choice of investors on channels for saving and assets (Suyono, 2014).

Taxation involves obtaining funds for the government's daily operations. The actions of government comprise raising funds and utilizing the funds to advance infrastructure, security and social amenities for the country's citizens, among other things (Ayuba, 2014). As a result, the goal of taxes is in support of government operations (Akhor, 2016). Taxation is a key fiscal policy tool that governments can use to raise revenue and encourage growth and development of the economy (Owino, 2019). Taxation also gives governments more leeway in planning and implementing their development agendas, encourages states to enhance their local economic policy environments, thereby attracting much-desired FDI, and reinforces the links of responsibility amid governments and its citizens (Mashiri, & Sebele-Mpofu, 2015). Kuria (2016) shows that positive relationship might exist betwixt growth of economy and taxation if tax resources are used solely for accumulation of human capital.

2.3.2 Inflation

This is referred to as the surge in price of products and services as a whole. Inflation causes a country's currency to weaken, requiring the government to spend more to supply goods and services. While the country's revenue rises as more taxes are collected, the economic growth may suffer as a result. Inflation has a significant effect on the purchasing power of a nation’s currency (Haritha & Abdul, 2020).

Rakovská (2021) revealed that inflation is negatively linked with growth of the economy. According to the analysis, inflation leads to increased government spending on fewer commodities. It was also established that investments are low when inflation is high, because many people normally spend their money on the most essential needs, for instance food. However, inflation is normally steady for a long time unless it is influenced by other macroeconomic factors impacting a certain country.

2.3.3 Interest rates

Interest rate is the amount payable for using borrowed money from a lender (Chirwa & Odhiambo, 2021). Interest is also the price that is paid by a borrower to forego future consumption. Specifically, it is price given by a lender to the person borrowing the loan. Interest is mainly computed as a proportion of the total amount given in credit (Chipote & Makhetha-Kosi, 2014).

Previously it has been observed that interest rate changes have significant effect on consumption and savings behavior and organization’s investment decisions (Salami, 2018). These changes often affect the demand supply equilibrium in an economy which occurs immediately or lag with up to two years.

Economic agents' expectations and tactics about their own future, as well as their percepti ons of welfare, income redistribution, and economic anticipations, are all affected by the changes (Thanh, 2015). Real interest rate is directly proportional to the cost of transacting business, sustenance and investment. Economy is stimulated by low interest rates because car & home loans are inexpensive to a wider base (Salami, 2018).

2.3.4 Money Supply

Money supply is synonymous with terms such as money stock, quantity of money and stock of money. Money supply is a fundamental factor that promotes economic growth by assuring the efficient operation of economic activities in the private and public segments. Private sectors may get loans at an interest to do business by tapping into the money supply (Twinoburyo & Odhiambo, 2017). Money supply is an instrument that is critical in enhancing economic growth. Monetary policy, on the other hand, is a key instrument utilized by the country's central bank in maintaining a stable economy and stimulate growth (Sidrauski, 2017).

Lucas (2016) sees monetary policy as an instrument that monetary authorities can use to control the availability and costs of credit/money in order to achieve price stability. Nevertheless, monetary authorities, particularly in emerging nations, have a dual role in guaranteeing price stability and economic growth in long run by using instruments of monetary policy (Njimanted, Akume & Mukete, 2016). Monetarists believe that money supply is a weapon which stimulates economic growth by causing an unpredicted raise in money stock, whereas Keynesians feel that very little impact is caused by money supply on economic growth (Twinoburyo & Odhiambo, 2017).

2.3.5 Savings

The degree of savings in a given society is a fundamental factor in the growth of the economy. Savings, according to classical economists, is both a necessary and adequate prerequisite for investment formation. They felt that as savings rise, so will investment, because interest rates will rise and economic development will be imminent (Mexhuani & Ribaj, 2018). Hundie (2014) investigated the link amid prudent saving and growth of economy. Increased savings have been observed as having a positive effect on long term growth. Stronger shocks on precautionary savings result in larger levels of saves as a result.

Countries with higher savings rates grow rapidly than those with lower savings rates. Accretion of capital gives a country more chances for productivity by providing an additional revenue source (Ribaj & Mexhuani, 2021). According to Sabra and Eltalla (2016), the key determinant in raising in-nation capital is increased savings, and that emerging nations ought to give priority to domestic savings plans so that money can be spent in the highly productive ways.

2.3.6 Public Investment

The public investments impact on growth of the economy varies by nations, implying that each nation's public investment environment is unique. Public investment has a positive and negative effect on growth of the economy; it can be beneficial or harmful (Dunne, 2012). At first, public investment will cause an increase in production, which in turn will cause improved output and employment levels. In the end, the economic growth will start to thrive (Dunne, 2012).

In agreement with the Keynesian point of view, public investments are an administration tool that motivates production to go up to a certain extent. Due to the raise in aggregate demand, public investments help to enhance output, which results to a raise in employment. Public investment boosts domestic final demand and output by a factor of two (Blinder, 2008). Conforming to Neo-classical beliefs, public investment rises at the expense of private spending since resources are shifted to the public from the private segment. This reorganization has a detrimental impact on growth of the economy and creates a disarrange impact in the public and private sectors, slowing economic advancement (Dunne, 2012).

2.3.7 Trade

Trade facilitates incorporation with sources of innovation and raises the significance of FDI. Trade allows economies to harness the possible benefits of increased return on economies and scales by specialization better by raising the market size (Alesina, Spolaore & Wacziarg, 2016). Grossman and Helpman (1991) note in their theoretical models that trade boosts the channeling of novel technologies, enabling technology progress and improving efficiency, and the gains are dependent on the approachability level of the economy. This agreement is based on the proposition that trade produces stimulants economically that enhances production in two ways; in short-run, there is decrease in trade, malapportionment of wealth: in long run, trade allows for technology development transfer. Under the strain of international competition, liberalization of trade may also drive governments to commit to reform plans, enhancing growth of the economy (Rajan & Zingales, 2013). As a result, trade liberalization in developing nations is commonly carried out in the hope of boosting growth.

Endogenous growth models, on the other hand, claim that contribution of trade to the economy growth vary on the basis of whether the strength of comparative edge direct the resources towards or away from programs that promote long-term growth. Furthermore, theories argue that emerging nations may have inadequate social ability needed to accept technology produced in an already developed economy because of financial or technological constraints. As a result, trade's growth effect may change based on economic development level (Musila & Yiheyis, 2015).

2.3.8 Foreign Direct Investment

FDI is seen as the net inflows of funds utilized to get long-run managerial part (10% or higher of voting shares) in a firm that does its operations in a nation apart from the investor's (World Bank, 2015). The balance of payments represents it as the value of short term and long-term capital, equity capital and earnings reinvestment. Foreign direct investment (FDI) is critical to economic development. Economic and technological drivers are driving international manufacturing expansion. Globalization gives poor nations a vital chance to achieve speedy growth of economy through investment and trade. It is accomplished by allowing investors from foreign countries to start businesses in the country by freeing the local economic segment and domestic capital (Ilhan, 2017).

A cross border investment whereby a resident gets a long-term interest in an enterprise in another economy is characterized as FDI. Lasting interest implies a long term link amid the company that is directly investing and the direct investor and it mainly means that the investor has a say in the management of the firm. In direct investment the direct investor possesses 10 percent of power on voting in a foreign company (Ilhan, 2017). FDI is a type of direct investment providing an exclusive form of inflow of capital different from

commercial financing it possesses various spillover effects such as technology transfer and administration skill transfer, both of which could improve the outcomes of the transferred capital. As a result, FDI is a suitable type of funding in emerging economies because it shares both risks and gains involved with the project being financed (World Bank, 2015). Am Marcel (2019) found that FDI has a strong negative influence on GDP.

2.3.9 Public Expenditure

The expenses incurred by a government for its own maintenance, the society, the economy, and supporting other countries are referred to as public spending (Mohsen, Hamid, Mustafa & Amin, 2013). The spending is split into two categories: current and capital. Public spending is divided into categories based on the purpose for which it is intended (Wanjiru, 2013). Recurring expenditure which includes salaries & wages, welfare services and public debt repayments affects the willingness and the of people to work, save and invest, (Maingi, 2016). The proper operation of an economy necessitates the expenditure of public funds. Because some items may not be available at all or in sufficient quantities in a free market economy, government spending is critical. Meritorious commodities such as health, education, security, and infrastructure receive a big share of government spending (Mohsen et al., 2013).

Expenditure on activities such as human resource/capital development and infrastructure enhances economic growth. If the expenditure by the government is mainly on consumption, this affects the economic growth negatively (Maingi, 2016). Expenditure on health and education segments results to accumulation and improvement of human capital and this being more productive and efficient, it leads to growth of the economy (Wanjiru, 2013). Spending on infrastructure sectors will directly contribute to the economic growth.

If the government spends on security and public order, defense and administration in general, this will create a favorable environment for investors and therefore leading to economic growth as tourism thrives (Mohsen *et al.*, 2013).

2.4 Empirical Studies

Globally in Turkey, Korkmaz, Yilgor, and Aksoy (2019) studied the effect of indirect and direct taxes on economic growth in Turkey. The ARDL approach was used in this investigation. The data demonstrated a positive significant impact of indirect taxes on growth of economy, while direct taxes negatively affected the growth. From 1950 to 2011, Zidar (2019) looked at the influence of burdens of federal tax on growth of economy and supply of labor in the US across different income categories and states. Tax cuts had a positive impact after change in policy, according to the study, although cut in taxes for low and middle income taxpayers had a bigger effect on growth compared to cut on tax for higher income people. Mertens and Olea (2018) did a research on impact of marginal tax rates on individual income for the year 1946 to 2012. They found out that reducing marginal rates reduced unemployment as well as the real GDP.

Al-tarawneh, Khataybeh & Alkhawaldeh (2020) researched on the taxation impact on growth of economy in an emerging country. The research goal was to look into the short and long-term consequences of taxation on growth of economy in Jordan. ARDL technique was developed utilizing yearly data from 1980 to 2018. Growth of economy, taxation, capital, and trade were all integrated, according to the boundaries test outcomes. The calculated model's empirical data show that taxes and growth of economy in Jordan have an adverse short and long term connection. Andrasic, Kalas, and Mirovic (2017) used data from the United States to develop an empirical method to growth of economy and taxation.

The study's outcomes imply that contributions related to social security as well as individual income taxes are only tangentially associated to growth of GDP.

In Pakistan, Ahmad and Ali (2020) used the ARDL Approach to investigate the effect of taxation on growth of economy. The study looked at the short- and long-term effects of taxation on Pakistan's growth of economy. The data was tried for stationarity utilizing the ADF test, and the ARDL model was applied to look for association amid the variables. The findings revealed that taxes and exchange rates are considerably associated negatively with growth of economy in the short and long run. In both times, life expectancy and liberalization of trade had a favorable impact on growth of economy. Hang (2020) investigated the best tax revenue threshold for economic growth. Panel data was collected from 2008 to 2017 and examined using the Generalized Method of Moment Analysis (GMM). It was found that tax income has a beneficial effect on growth of economy in the nations studied, while government spending has an adverse impact.

Macek (2015) used data from the years 2000 to 2011 to study the taxation impact on growth of economy in OECD nations. According to the report, corporate tax highly contributes to economic growth, preceded by individual income taxes and contributions to social security. It was also discovered that a value added tax modeled after tax quotas had a detrimental impact on growth of economy. Furthermore, the impact of property taxes on growth of economy was statistically insignificant.

In their review, Khumbuzile and Hlalefang (2018) reviewed taxation impact of growth of economy in SA. The ARDL technique was created by use of data for SA from 1981 to 2016. In South Africa, the study discovered unfavorable association amid economic growth and taxes. Growth of economy, trade and openness, capital, and taxation were all

intertwined, as per the findings. Gbato (2017) looked at how taxes affect growth in Sub-Saharan Africa. A total of thirty-two nations in Sub-Saharan Africa were included in the study. Results indicated that taxation has no effect on growth in the long run. It was also discovered that indirect taxes and taxes have a considerable detrimental impact on individuals in the near run. As a result, the employment of tax as a tool of intervention in the region is unsuitable. As a result, if fiscal policy is designed entirely on the logic of fiscal neutrality, the region's economies could grow faster.

Maganya (2020) used an ADL technique to investigate tax revenue and growth of economy in underdeveloped countries. Main goal was to look at the impact of taxation on GDP in from 1996 to 2019 in Tanzania by use of a recently developed approach called ARDL bounds test. Stationary and the pair-wise Granger causality test were done as preliminary testing. Taxes in domestic services and goods are favorably connected to growth of GDP. On the other side, income taxes were inversely associated to growth of GDP.

Using data from Nigeria, Immanuella (2016) studied VAT contribution to growth of GDP. The outcomes showed a positive connection. In the Nigerian context, the study also discovered that VAT and whole revenue on tax w connected positively and the connection was significant. Similarly, Hakim, Karia, and Bujang (2016) investigated tax impact on growth of GDP in a number of wealthy countries. In selected industrialized nations, the research discovered that commodity taxes and GDP increase were connected positively and the connection was significant.

In Kenya, Njoki (2017) researched on the impact of incentives in form of taxes on growth of the Kenyan Economy. The research utilized secondary data and the analysis was done using descriptive analysis and regression analysis. This showed that tax incentives alone

do not raise GDP growth rate. Further, there was an inverse link between GDP growth rate 30 and tax incentives. It was also noted that, though tax incentives may encourage investments in a country, they do not drive economic growth.

In another study, Ouma (2019) in Kenya evaluated the revenue implications of governance, tax reforms and economic growth. The study used yearly data from 1964 to 2016 and looked into the impact of tax reforms, growth of economy, and the political environment on total taxes collections. Each of the tax reforms was found to have a favorable impact on taxes. Also, because GDP was rising, the reforms had an impact on tax changes; growth of economy has a positive significant impact on all tax categories; government efficacy has a favorable impact on indirect taxes; adding that, despite the fact that the influence of government corruption control on tax collections is statistically small, revenue generation may be more important than economic growth.

Kithinji (2019) looked at how taxation affects government spending in Kenya. The goal was to figure out how taxation affects government spending in Kenya. The National Bureau of Statistics provided secondary data, which was investigated by use of descriptive statistics and a regression model. The outcomes indicated that government revenue has a considerable impact on government spending. To be able to pay for both recurrent and non-recurrent expenses, it was advised that the government lower recurrent expenditures, raise tax collections, or borrow more.

Omondi (2016) researched the impact of indirect taxes on Kenya's growth of economy. Tom examine the degree and direction of correlations between variables, a correlation research approach was used, with a basis on endogenous growth theory. Cointegration test and error correction models were utilized to approximate annual time series data. Indirect

taxes are positively connected with Kenyan growth of economy. The VAT impact on growth of economy, was statistically insignificant. The results of cointegration indicated that tax revenue and GDP are three-order integrated, indicating a long run association amid indirect tax revenue and growth of the economy.

2.5 Conceptual Framework

This shows how the study variables are related. In this study the framework would show the link amid taxation and economic growth in Kenya as shown in Figure 2.1.

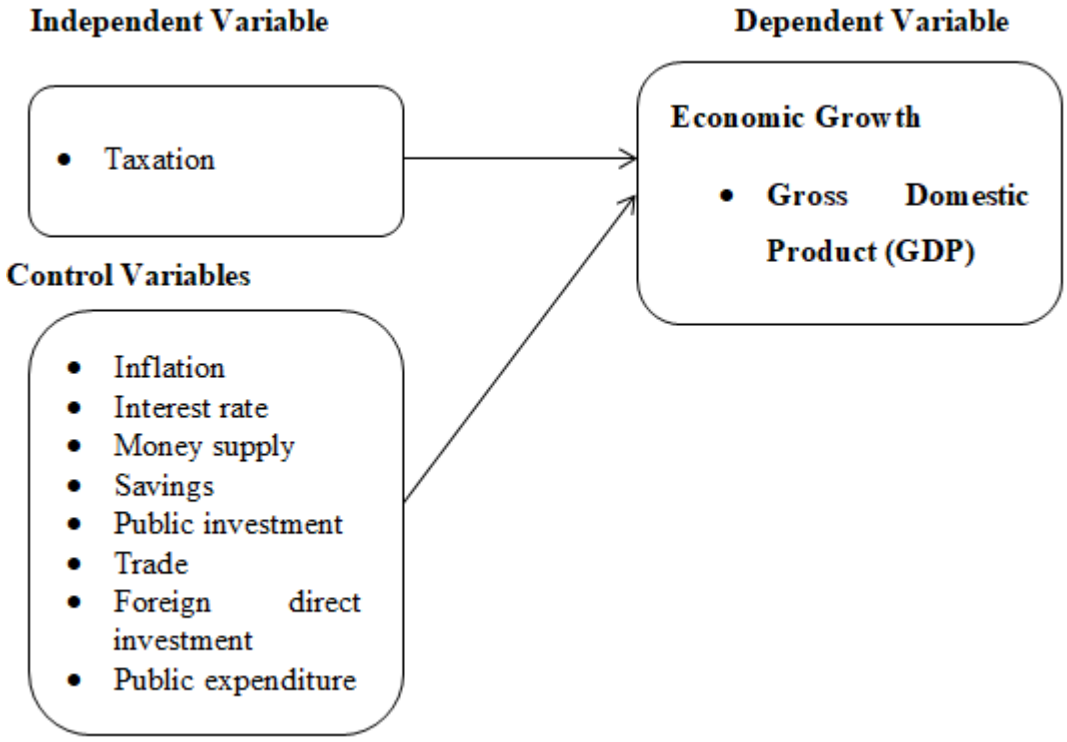

Figure 2.1: Conceptual Framework.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, target population of the study, instruments and methods & data analysis and presentation.

3.2 Research Design

The design acts as a road map for attaining goals and answering questions. It is a strategy for collecting, measuring and analyzing data (Cooper & Schindler, 2013). Longitudinal research design in determining the impact of taxation on economic growth in Kenya. A longitudinal study is a type of correlational research in which variables are examined over a lengthy period of time. This method is used to discover correlations between variables that are do not relate to other variables in the background. Observational research method follows the same group of people for a long duration (Roman, Caruana Hernández-Sánchez & Solli, 2015). This study design was suitable in this study since it permitted the researcher to look at changes of the phenomenon being studied at varied points in life and examine some of the reasons why these growth shifts take place.

3.3 Target Population

Population is a whole group of individuals, events, or things sharing features that are observable Mugenda and Mugenda (2003). This study focused on taxation and economic growth in Kenya. The study obtained data for a duration of 51 years and focused on this period because it provided the much information about how taxation has impacts on economic growth in Kenya.

3.4 Data Collection

The study used secondary data which was obtained by use of a data collection sheet. A data collection sheet helps the researcher to collect, process, and make sense of information from multiple data resources. Secondary data was collected on taxation, inflation, interest rate, money supply, savings, public investment, trade, FDI, public expenditure and GDP for a duration of 51 years. The data was obtained from KRA, KNBS published reports, other officially published documents by the Kenyan Government and other published reports available online. Collected data was recorded in the data collection sheet.

3.5 Diagnostic Tests

Diagnostic was conducted to ensure that the results derived from multiple regression analysis are reliable and also ensure there is no biasness in the results and that the results are efficient and consistent. Tests conducted were autocorrelation, Normality, linearity, homoscedasticity and multicollinearity.

3.5.1 Autocorrelation Test

There should be little or no autocorrelation in the data utilized in linear regression. Autocorrelation occurs when the residual values are not independent of one another; this indicates that values of y(x+1) are reliant to value sof y(x) (Cooper & Schindler, 2013). This test can be examined by use of a scatterplot, or the Durbin-Watson test in a linear regression model. Null hypothesis for these tests asserts that the data is nonlinear in its autocorrelation. The d value is a number that spans from 0 to 4; if it is determined to be between 2, it indicates that there is no autocorrelation. If the d values are between 0 and

less than 2, it shows a positive autocorrelation. Values of d greater than 2 shows a negative autocorrelation. The autocorrelation was determined using the Durbin-Watson test.

3.5.2 Multicollinearity

In regression analysis, multicollinearity tests the linear intercorrelation between variables. The SPSS regression outcomes show the correlation level amid predictor variables and the correlation coefficient between variables. Multicollinearity raises the coefficient's standard errors, making some variables statistically insignificant despite the fact that they should be. To test this, variance inflation factor was used. If VIF is greater than 5 but less than 10, there is considerable multicollinearity present. If VIF obtained is less than 10, then there is a lot of multicollinearities.

3.5.3 Normality

The normality assumption states that the random variables follow a normal or nearly normal distribution. Every statistical instrument, like the normalcy assumption, must contain some degree of error. It is impossible to collect data that is evenly distributed. However, the majority of spontaneously occurring phenomena follow a nearly normal distribution (Field, 2009).

To test if the data is distributed normally Shapiro-Wilk W test was used. According to the test, the null-hypothesis assumes population to be normally distributed. Where the p-value < 0.05, the Null Hypothesis is rejected as it shows the data is not distributed normally. If the p-value > 0.05, the null hypothesis is accepted as it shows normally distributed data and thus cannot be rejected, hence suitable for statistical analysis.

3.5.4 Linearity

The term "linearity" refers to interconnection between variables. If the link amid the variables is linear, multiple linear regressions can effectively predict the relationship. Scatterplots were used to indicate if the independent and dependent variables have a linear or curved relationship. F statistic was utilized to assess the linearity relationship using an ANOVA table. If the p-value falls below 0.05, the H_0 is rejected and the alternative hypothesis accepted, concluding that the relationship is non-linear.

3.5.5 Homoscedasticity

In the case the variance of the response variable error is the same across the data, this is known as homoscedasticity. Heteroscedasticity is the polar opposite. According to Field (2009), heteroscedasticity occurs when the error term has variance. It occurs when the variance of errors fluctuates based on the values of the independent variables. When the residuals are not uniformly distributed around the horizontal line, heteroscedasticity arises. The Breusch-Pagan test was used to test homoscedasticity. The null hypothesis in the Breusch-Pagan test is homoscedasticity.

3.6 Data Analysis

Data analysis was done using SPSS. Standard deviation mean, descriptive statistics frequencies, and percentage analyzed the collected data. A correlational analysis was conducted to find out the link between the independent and dependent variables. Tables were used for data presentation to facilitate easy understanding. Regression analysis was also carried out so as to know the association level of the variables in the study. Below was the regression Model;

$$Y = B0 + B_1X_{1t} + B_2X_{2t} + B_3X_{3t} + B_4X_{4t} + B_5X_{5t} + B_6X_{6t} + B_7X_{7t} + B_8X_{8t} + B_9X_{9t}$$

Y- Gross Domestic Product

β_0 is the regression constant, β_1, β_2, β_3 and β_4 are the coefficients of independent variables

X_1 – Taxation

X_2 - Inflation

X_3 - Interest rate

X_4 - Money supply

X_5 - Savings

X_6 - Public investment

X_7 - Trade

X_8 - Foreign direct investment

X_9 - Public expenditure

ε - Error Term

Table 3.1: Variables Measurement

Variable	Type of Variable	Measurement
Economic growth	Dependent variable	Logarithm of GDP
Taxation	Independent variable	Tax Revenue (% of GDP)
Inflation	Control variable	Inflation, Consumer prices (Annual %)

Interest rate	Control variable	Lending interest rate (%)
Money supply	Control variable	Broad Money Supply (% of GDP)
Savings	Control variable	Gross savings rate (% of GDP)
Public investment	Control variable	Kenya's investment (% of GDP)
Trade	Control variable	Trade (% of GDP)
Foreign direct investment	Control variable	Logarithm of FDI, Net inflows
Public expenditure	Control variable	Gross National Expenditure (% of GDP)

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents the data analysis. It covers the descriptive statistics, diagnostic tests, correlational analysis, and regression analysis and discussion of findings. The study collected secondary data for a duration of 51 years.

4.2 Descriptive Statistics

The outcomes of Taxation, inflation, interest rate, Money supply, Savings, Public investment, trade, FDI and public expenditure were as per table 4.1 below.

Table 4.1 : Descriptive Statistics

		N	Minimum	Maximum	Mean	Std. Deviation
Economic Growth	Log of real GDP	51	21.20	25.34	23.28	1.13
Taxation	Tax Revenue (% of GDP)	51	14.30	26.11	18.31	3.29
Inflation	CP annual %	51	1.55	45.98	11.50	8.01
Interest rate	lending rate %	51	7.00	36.24	16.26	6.68
Money supply	Broad Money Supply(% of GDP)	51	23.42	47.00	34.97	5.67
Savings	Gross savings (% of GDP)	51	7.13	37.16	15.89	5.81
Public investment	% of GDP	51	15.00	29.79	20.47	3.39
Trade	% of GDP	51	31.42	74.57	55.69	9.49
Foreign direct investment	Log of FDI	51	12.89	21.10	17.90	1.73
Public expenditure	Gross National Expenditure (% of GDP)	51	95.22	116.22	107.18	5.54

The results show that under the period of study (1970-2020), taxation mean value was 18.33 and std. deviation was 3.289, with the least value recorded being 14.3% and the highest being 26%. Further, inflation had a mean score of 11.51% and the std. deviation was 8.01%. Interest rate mean score was of 16.26 and std. deviation was 6.68; money supply had a mean of 34.97 and std. deviation was 5.67; savings mean score was 15.89 and std. deviation of 5.81; public investment mean value was 20.47 and std. deviation of 3.39; trade had a mean of 55.69 and std. deviation of 9.49, foreign direct investment had a mean of 11.90 and std. deviation of 1.73. Public expenditure had a 107.18 mean score and std. deviation of 5.54, implying that there was a high variation of public expenditure over the years.

The outcomes further demonstrated that the economic growth of Kenya between 1970 and 2020 was 23.28 on average log of real GDP with the maximum being 25.34 and the minimum rate being 21.2. The rate of economic growth was slow but it did not fluctuate much as shown by low standard deviation value of 1.13.

4.3 Diagnostic Tests

Test for autocorrelation, normality, linearity, Multicollinearity and homoscedasticity test were used for this study.

Table 4.2: Auto Correlation Test

Model	Durbin-Watson
1	1.867

The autocorrelation was determined using the Durbin-Watson test. In this test, the d value is a number that spans from 0 to 4; if it is determined to be 2, it indicates that there is no

autocorrelation. If the d values are between 0 and 2 it indicates that there is positive autocorrelation. If the d values are greater than 2, the data has negative autocorrelation. The outcomes were as per the table 4.2 below. The results show that the d value was 1.867 which is approximately 2. This implies that the data has no autocorrelation hence it can be used for regression analysis.

Table 4.3: Normality Test

	Shapiro-Wilk		
	Statistic	df	Sig.
Economic Growth	.947	51	.023
Taxation	.883	51	.000
Inflation	.840	51	.000
Interest rate	.899	51	.000
Money supply	.971	51	.243
Savings	.892	51	.000
Public investment	.971	51	.233
Trade	.948	51	.027
Foreign direct investment	.958	51	.067
Public expenditure	.951	51	.036

Normality was tested by use of Shapiro Wilk Test. If the p-value is lower than 0.05 significance level, reject the Null Hypothesis. If the p-value is higher than 0.05 significance

level, accept null hypothesis, and we make a conclusion that the data is normally distributed. Economic growth, taxation, inflation, interest rate, savings, trade and public expenditure had p-values that were below the selected significance level (0.05). This infers that the variables were not normally distributed. However, money supply, public investment and foreign direct investment showed p-values above 0.05 hence the null hypothesis was accepted indicating that the data was normally distributed thus meeting regression assumption of normal data.

Table 4.4: Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
Taxation	.209	4.778
Inflation	.526	1.901
Interest rate	.265	3.778
Money supply	.214	4.663
Savings	.200	5.001
Public investment	.360	2.781
Trade	.378	2.645
Foreign direct investment	.424	2.358
Public expenditure	.188	5.318

The VIF was used in testing for Multicollinearity. If VIF is greater than 5 there is considerable Multicollinearity present. The variables VIF values were below 5 except for gross savings and gross national expenditure. This indicates that the variable data for tax revenue, inflation, lending interest rate, broad money supply, Kenya's investment, trade and FDI net inflows had no Multicollinearity issues. However, gross savings and gross national expenditure had some considerable Multicollinearity.

Table 4.5: Linearity Test

			Sum of Squares	df	Mean Square	F	Sig.
Economic Growth * Taxation	Between Groups	(Combined)	61.053	47	1.299	1.197	.519
		Linearity	34.451	1	34.451	31.757	.011
		Deviation from Linearity	26.602	46	.578	.533	.853
	Within Groups		3.254	3	1.085		
	Total		64.307	50			

The F statistic was utilized to assess the linearity relationship using an ANOVA table. If the p-value is below 0.05, reject the null hypothesis concluding that the relationship is non-linear. According to the ANOVA table above, the value of significance from the deviation linearity value was 0.853 > 0.05. The researcher accepts the null hypothesis that linear relationship exists between economic growth and taxation. Hence, the data can be used for statistical analysis.

Table 4.6: Breusch-Pagan test

Ho: Constant variance	
Chi-squared	0.199
Prob > Chi^2	1.000

To determine homoscedasticity, the Breusch-Pagan test was used. If the significance level is smaller than 0.05, the H_0 is rejected. The outcomes were as indicated in Table 4.6.

The outcomes show that the value of p (1.000) was higher than 0.05 significance level. This indicates that the H_0 of constant variance is accepted. This infers that there was an insignificant degree of heteroscedasticity in the model.

4.4 Correlational Analysis

Using the Spearman correlation analysis, the study established the strength of the relation amid the predictor variables and response variables.

Table 4.7: Correlational Results

		Economic Growth	Taxation	Inflation	Interest rate	Money supply	Public investment	Trade	Foreign direct investment
Economic Growth	Pearson Correlation	1							
	Sig. (2-tailed)								
Taxation	Pearson Correlation	-.732**	1						
	Sig. (2-tailed)	.000							
Inflation	Pearson Correlation	-.231	.162	1					
	Sig. (2-tailed)	.103	.256						
Interest rate	Pearson Correlation	.195	-.259	.015	1				

	Sig. (2-tailed)	.170	.066	.917					
Money supply	Pearson Correlation	.798**	-.132	-.187	.493	1			
	Sig. (2-tailed)	.000	.356	.189	.000				
Public investment	Pearson Correlation	-.416**	.200	.038	-.111	-.252	1		
	Sig. (2-tailed)	.002	.159	.793	.438	.074			
Trade	Pearson Correlation	-.669**	.227	.046	.154	-.298	.149	1	
	Sig. (2-tailed)	.000	.109	.748	.281	.065	.749		
Foreign direct investment	Pearson Correlation	.765**	-.142	-.171	.106	.075	-.235	-.012	1
	Sig. (2-tailed)	.000	.320	.230	.460	.601	.096	.933	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

From the findings, taxation had a negative correlation with growth of the economy as shown by (r = -0.732, p = 0.000), inflation had positive insignificant correlation with growth of the economy (r = 0.231 p=0.103), interest rate had a positive insignificant correlation with growth of the economy as demonstrated by (r = 0.195, p = 0.170), while money supply had a positive correlation as indicated by (r= 0.798, p = 0.000). The findings also show that public investment had a strong negative significant correlation with growth of the economy (r= -0.416, p = 0.006), trade had a strong negative significant correlation as demonstrated by (r = -0.669, p = 0.000) while FDI had a positive correlation as demonstrated by (r = 0.765, p = 0.000).

4.5 Regression Analysis

To find out the relationship amid the predictor and response variable, a multiple regression analysis was done. The analysis helped to identify the impact of taxation on economic growth in Kenya.

Table 4.8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.920[a]	.846	.821	.47966

a. Predictors: (Constant), Foreign direct investment, Interest rate, Inflation, Public investment, Trade, Money supply, Taxation

The results show that the value of R^2 was 0.846 meaning that there was 84.6% variation of economic growth due to changes of taxation, inflation, Public investment, interest rates, Trade, money supply and FDI. The remaining 15.4% infers that some other factors having an impact on economic growth in Kenya were not incorporated in this study.

Table 4.9: Analysis of Variance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.414	7	7.773	33.787	.000[b]
	Residual	9.893	43	.230		
	Total	64.307	50			

a. Dependent Variable: Economic Growth
b. Predictors: (Constant), Interest rate, Foreign direct investment, Inflation, Public investment, Trade, Money supply, Taxation

The ANOVA outcomes shows that the F-statistic (33.787) was lower than 2.118 i.e. the F critical value. The p value was <0.05 an indication that predicting variables (taxation, inflation, money supply, FDI, interest rates, public investment and trade) had a significant impact on economic growth in Kenya.

Table 4.10: Regression Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	20.184	1.582		12.757	.000
	Taxation	-.046	.045	-.133	-1.032	.308
	Inflation	.011	.010	.078	1.133	.263
	Interest rate	-.008	.028	-.027	-.273	.787
	Money supply	.072	.026	.362	2.823	.007
	Public investment	.005	.028	.016	.191	.850
	Trade	-.045	.011	-.372	-3.928	.000
	Foreign direct investment	.207	.057	.314	3.617	.001

a. Dependent Variable: Economic Growth

$$Y = \mathrm{B0} + \mathrm{B}_1\mathrm{X}_{1t} + \mathrm{B}_2\mathrm{X}_{2t} + \mathrm{B}_3\mathrm{X}_{3t} + \mathrm{B}_4\mathrm{X}_{4t} + \mathrm{B}_5\mathrm{X}_{5t} + \mathrm{B}_6\mathrm{X}_{6t} + \mathrm{B}_7\mathrm{X}_{7t} + \mathrm{B}_8\mathrm{X}_{8t} + \mathrm{B}_9\mathrm{X}_{9t}$$

Was fitted to

$$Y = 20.184 + 0.072\mathrm{X}_{4t} - 0.045\mathrm{X}_{7t} + 0.207\mathrm{X}_{8t}$$

The results show that holding all predicting variable (taxation, inflation, interest rates, money supply, public investment, FDI and trade) constant, the economic growth would be at 20.184. Further, taxation has a negative and insignificant impact on growth of the economy (B = -0.046, p = 0.308), inflation indicated insignificant positive impact on economic growth (B = -0.011, p = 0.263), while interest rate had a negative and insignificant impact on the growth of economy (B = -0.008, p = 0.787). However, money supply had a positive and significant impact on growth of the economy (B = 0.072, p = 0.007), public investment indicated a positive and insignificant impact on the economic growth (B = 0.005, p = 0.850), trade indicated a negative and significant impact on the

economic growth as shown by (B = -0.045, p = 0.000) while FDI had a positive and significant impact on growth of the economy as shown by (B = 0.207, p = 0.001).

4.6 Discussion of Findings

The study showed that taxation had a negative insignificant impact on growth of the economy. This implies that an risee in taxation would have no significant effect on economic growth. Conversely, Dladla and Khobai (2020) concluded that corporate tax impacts economic growth negatively. Kairanya (2016) concluded that taxation negatively and significantly influenced the economic growth in Kenya. They also differ from those of Maganya (2020) who established that the growth of GDP is favored by taxes on goods and services produced domestically.

It was found that inflation had a negative insignificant impact on economic growth. As the level of inflation increases, the economic growth reduces insignificantly. The findings differ with those of Adaramola and Dada (2020) who concluded that inflation is detrimental inflation exert a significant negative impact on a country's economic growth. Additionally, Madurapperuma (2016) concluded that a negative relationship exists in the long run amid inflation and economic growth in Sri Lanka.

The study also indicated that interest rate had a negative insignificant impact on economic growth which depicts that an increase in interest rates would lead to an insignificant decrease in economic growth. These findings concur with conclusion reached by Adegoke, Azeez, Ogiamien and Osasona (2021) who reported an insignificant negative relationship exists between interest lending rate and the gross domestic product. He however noted that the relationship was statistically insignificant. However, Iorember, Jelilov, Alymkulova and Yua (2022) reported a negative relationship between interest rate and economic

growth. In Pakistan, Hussain, Akram, Ghaffar, Qamar and Ahmad (2019) showed that interest rates adversely affect economic growth in both short and long run.

Results showed that money supply had a positive and significant impact on growth of the economy. This indicates that increased money supply would lead to improved economic growth. These findings concur with those of Sidrauski (2017) who found that money supply enhanced economic growth. They differ with those of money supply had insignificant impact on growth of the economy (Twinoburyo & Odhiambo, 2017).

The outcomes further showed that public investment had a positive and insignificant impact on the economic growth. This indicates that increased public investment would not significantly increase economic growth. The findings are similar to those of Dunne (2012) who indicated that public investment had a detrimental impact on growth of the economy.

The findings showed that trade had a significant negative impact on the economic growth. The findings show that increased trade would reduce economic growth. The findings concur with the findings of trade's growth effect varies depending economic development level (Musila & Yiheyis, 2015). They differ with the findings of trade lead to increased return on economies (Alesina, Spolaore & Wacziarg, 2016).

Regarding FDI, the study established that the variable had a positive impact on growth of the economy. The results on this variable failed to agree with existing literature. Muhia (2019) reported that FDI had a positive and significant impact on economic growth in the infrastructure sector. The results also concurred with results obtained by Kairanya, (2016) who revealed that in the short run, FDI had a positive significant effect the economic growth in Kenya. However, the findings contradicted with those of Am Marcel (2019) who found that FDI negatively and significantly influenced the GDP.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The summary of findings, conclusion on research and recommendations are presented in this chapter. The study objective was to determine the impact of taxation on economic growth in Kenya.

5.2 Summary of Findings

The study focused on taxation and economic growth in Kenya. The study used longitudinal research design. Data was obtained for a duration of 51 years between 1970 to 2020. This study obtained secondary data on taxation, inflation, interest rate, money supply, savings, public investment, trade, FDI, public expenditure and GDP for a duration of 51 years.The data was compiled using a data collection sheet. The data was obtained from KRA, KNBS published reports, other officially published documents by the Kenyan Government and other published reports available online. SPSS was used in analyzing this data and analyzed using std. deviation, mean, descriptive statistics frequencies, and percentage. Analysis on correlation was also conducted to find out the link between the study variables. Presentation of the data was done by the use of tables. Regression analysis was also done so as to know the association level of the variables in the study.

From the findings, there was 84.6% variation of economic growth due to changes of taxation, inflation, money supply, trade, interest rates, public investment, and foreign direct investment. This indicates that taxation, inflation, money supply public investment, trade,

interest rates and FDI were the major factors influencing economic growth in Kenya. The p value according to the ANOVA outcome was less than 0.05 an indication that predicting variables (taxation, inflation, interest rates, money supply, public investment, trade, and FDI) had a significant impact on economic growth in Kenya.

The results from the regression coefficients indicates that FDI and money supply had a positive impact on growth of the economy. The impact was also significant. However, trade showed a negative significant impact on growth of the economy. Public investment and inflation had a positive and insignificant impact on growth of the economy. The results further showed that taxation had a negative insignificant impact on economic growth similar to interest rate.

5.3 Conclusions

According to the study money supply had a positive significant impact on growth of the economy. This indicates that increased money supply would lead increased GDP as a reflection of economic growth. Hence the study concludes that money supply has a positive effect on Kenya's economic growth. The study found that FDI had a positive and significant impact on growth of the economy. This indicates that increased FDI would lead increased GDP (economic growth). Hence, the conclusion that FDI has a positive impact on Kenya's economic growth.

The study also found that trade had a negative significant impact on growth of the economy. This is a reflection that increased trade would reduce economic growth. This study, therefore, concludes that trade impacts Kenya's economic growth negatively.

Additionally, public investment had a positive and insignificant impact on economic growth which indicates that despite the increase in public investment, the increase in economic growth would be insignificant. The study therefore concludes that public investment has no significant effect on Kenya's economic growth.

The results showed that inflation had a positive insignificant impact on growth of the economy. This was shown by the insignificant regression coefficient indicating that increased inflation would not cause any significant change to economic growth. This study concludes that inflation has no significant impact on growth of the Kenyan economy.

Outcomes showed that taxation had a negative but insignificant impact on economic growth. This is an indication that increased taxation would cause a negative change in economic growth which would be insignificant. Conclusion is therefore made that taxation has no significant effect on growth of the Kenyan economy.

Outcomes further showed that interest rate indicated a negative but insignificant impact on economic growth. This shows that despite interest rate causing a negative effect on growth, the effect would be insignificant. This leads to the conclusion that impact of interest rate on growth of the Kenyan economy is insignificant.

5.4 Recommendations

Outcomes showed that taxation had a negative insignificant impact on economic growth of the Kenyan economy. This study recommends the government to review the tax policies for optimal reduction in taxation in the country. The government should constantly balance the need to provide a tax environment that's competitive, in order to ensure sustainable tax policy.

Based on the study, money supply had a positive impact on growth of the economy. This indicates that increased money supply would lead increased GDP as a reflection of economic growth. Therefore the study recommends efforts to be made to increase money supply in a sustainable way. This can be done through reducing or increasing the discount rate paid on short-term loans by banks. The government should also increase the money supply in the economy through CBK borrowings.

The study found that FDI had a positive and significant impact on economic growth in Kenya and therefore proposes that the government devise policies that would increase investment inflows in Kenya. This can be done by ensuring a stable political and legal stability which will attract investors into the country. The government can also increase FDIs through relaxed investment restrictions for multinationals which will enable them setup shop in Kenya easily.

The study concludes that trade has a negative impact on economic growth in Kenya. The government should remove restrictions like high tariffs and maintain control on resource mobility. The Government should participate actively in the regional economic blocks for instance the East Africa Community.

There is need for the government to design fiscal policies that would put the inflation and public investment optimal to ensure improved economic standing. Outcomes further showed that interest rate had a negative but insignificant impact on economic growth. There is need for the government to devise policies that would see the lending rate reduce to sustainable levels. This would see the country experience increased GDP as a measure of economic growth.

5.5 Limitations of the Study

Secondary data was used in this study which was obtained from KRA, KNBS and World Bank websites. This kind of data is likely to have some shortcomings such as manipulation and errors while recording. The researcher therefore lacks control over the quality and accuracy the of data. Therefore, the conclusions reached in this study were grounded on the data obtained. The researcher crosschecked from multiple sources to ascertain the accuracy of the data.

The study primary focus was to determine the impact of taxation on economic growth in Kenya. The study therefore concentrated how taxes affect economic growth and its findings may not be used to make inferences on other aspects of taxation such as tax avoidance, evasion and compliance on economic growth. To address the issue the study considered all the taxes collected as a % of GDP and included other control variables for interest rate, money supply, savings, public investment, trade, foreign direct investment and public expenditure.

This study only considered macroeconomic variables such as taxation, inflation, interest rate, money supply, savings, public investment, trade, foreign direct investment and public expenditure. However, other factors that may impact economic growth exists for instance, micro-economic variables and corruption which were excluded because they were beyond the scope of the study. The findings therefore are restricted to the macroeconomic variables listed in the study.

5.6 Recommendations for Further Research

The study focused on establishing the impact of taxation on economic growth in Kenya. The study suggests further research be carried out to determine the impact of tax reforms on economic growth. Additional research should also be done to find out how individual taxes impact the economic growth of Kenya. From the study, 84.6% variation of economic growth could be accounted for by the predictor variables adopted in the study. Therefore, a study should be conducted using other factors to cover 15.4% of change in the economic growth.

Further research should also be done to establish the impact of taxation on economic performance in Kenya. Studies need to be carried out on each of the controlling factors to determine how they impact on economic growth. Future studies should be done based on primary kind of data to see how taxation would relate to economic growth in Kenya.

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APPENDICES

Appendix I: Research Data

Year	Economic Growth	Tax Revenue	Inflation	Interest rate	Broad Money supply	Gross Savings	Public investment	Trade	FDI	Gross National expenditure
	Log of GDP	(% of GDP)	CP % annual	(End year lending rate, %)	(% of GDP)	(% of GDP)	(% of GDP)	(% of GDP)	Log of FDI	(% of GDP)
1970	21.2	19.21	2.19	5.5	30.61	16.22	24.4	60.49	16.44	100.84
1971	21.3	18.29	3.78	5.5	29.67	13.06	23.92	63.83	15.82	106.55
1972	21.47	21.49	5.83	5.5	28.54	14.15	22.32	55.32	15.66	102.12
1973	21.64	20.48	9.28	5.5	30.49	13.29	25.81	56.06	16.66	101.28
1974	21.81	26.11	17.81	5.19	25.71	16.14	25.76	74.57	16.97	107.22
1975	21.9	25.08	19.12	4.87	27.4	12.26	18.14	64.34	16.66	104.69
1976	21.97	22.68	11.45	4.87	28.18	17.43	20.24	64.21	17.65	99.31
1977	22.23	22.72	14.82	4.87	32.8	25.31	23.72	66.55	17.85	96.58
1978	22.39	22.3	16.93	4.87	34.53	18.19	29.79	67.62	17.35	109.80
1979	22.55	20.34	7.98	4.87	34.36	14.25	18.13	57.36	18.25	101.83
1980	22.71	19.17	13.86	4.83	29.93	17.28	24.51	65.42	18.18	106.34
1981	22.65	21.12	11.6	3.57	29.47	19.68	22.91	64.3	16.47	103.24
1982	22.58	19.82	20.67	2.3	30.42	16.16	21.86	58.22	16.38	103.80
1983	22.51	22.17	11.4	2.56	28.18	20.27	20.93	54.16	16.98	100.49
1984	22.55	22.41	10.28	2.65	23.42	17.94	19.81	58.8	16.19	101.42
1985	22.54	21.41	13.01	2.75	26.68	23.98	25.33	55.45	17.18	101.03

1986	22.7	22.09	2.53	2.75	30.39	21.22	21.77	55.74	17.3	100.01
1987	22.8	24	8.64	3.69	30.24	18.26	24.29	47.7	17.49	105.11
1988	22.85	23.7	12.27	4.67	28.9	20.18	25.45	49.98	12.89	105.40
1989	22.84	22.4	13.79	5.25	28.4	14.6	24.86	53.16	17.95	111.80
1990	22.87	21.1	17.78	5.08	29.58	18.99	24.16	57.02	17.86	105.20
1991	22.82	16.83	20.08	4.5	30.98	19.37	20.97	55.6	16.75	101.26
1992	22.83	17.83	27.33	4.5	36.52	15.13	16.92	52.93	15.67	99.91
1993	22.47	17.29	45.98	10.3	37.07	37.16	17.61	72.86	18.8	95.22
1994	22.69	15.77	28.81	20.52	38.02	33.8	19.29	71.27	15.82	96.86
1995	22.93	16.97	1.55	15.2	42.23	23.82	21.8	71.75	17.56	105.92
1996	23.21	18.67	8.86	16.2	35.79	16.48	15	57.31	18.5	106.25
1997	23.3	15.14	11.36	13.52	38.42	16.27	15.14	54.06	17.94	107.86
1998	23.37	15.16	6.72	11.09	35.81	16.26	16.69	48.9	17.09	110.64
1999	23.28	15.96	5.74	12.83	35.77	18.49	15.52	48.19	17.77	109.85
2000	23.27	15.55	9.98	14.24	35.17	12.88	17.41	53.31	18.52	110.76
2001	23.29	15.73	5.74	13.03	35.24	9.78	18.79	55.95	15.48	114.33
2002	23.3	15.95	1.96	12.97	38.16	8.53	15.14	55.17	17.13	110.83
2003	23.42	15.88	9.82	12.44	39.02	9.48	16.48	54.13	18.22	111.73
2004	23.5	15.77	11.62	10.1	39.33	11.96	16.96	59.48	17.65	110.35
2005	23.65	16.88	10.31	7.8	38.91	13.87	17.65	64.48	16.87	110.43
2006	23.97	16.26	14.45	8.5	34.6	16.06	18.63	55.24	17.74	109.21
2007	24.19	16.18	9.76	8.18	36.07	16.66	20.46	53.9	20.41	109.94
2008	24.3	15.64	26.24	8.71	36.11	15.41	19.61	57.58	18.38	110.61
2009	24.47	15.09	9.23	8.84	36.46	14.51	19.33	50.86	18.57	110.80
2010	24.54	15.87	3.96	9.81	40.31	14.13	20.73	54.22	19	112.16
2011	24.57	15.9	14.02	9.42	40.86	13.57	21.71	60.45	21.1	114.52
2012	24.76	15.88	9.38	8.15	40.86	12.54	21.48	57.77	21.05	114.07

2013	24.85	15.77	5.72	8.67	42.3	9.61	20.1	53.13	20.84	114.99
2014	24.95	15.19	6.88	8.14	47	10.54	22.43	51.3	20.53	116.22
2015	24.97	14.84	6.58	6.9	46.9	11.19	21.47	44.18	20.24	114.40
2016	25.04	14.97	6.3	7.87	43.61	11.45	18.26	37.7	19.97	110.02
2017	25.13	15.05	8.01	5.99	40.88	9.19	19.03	37.4	21.02	113.57
2018	25.25	14.36	4.69	4.77	41.34	8.58	17.95	36.15	20.46	113.42
2019	25.33	15.1	5.24	4.94	40.01	7.97	17.4	33.4	19.97	112.95
2020	25.34	14.3	5.4	5.03	41.96	7.13	15.67	31.42	19.87	112.96

Source: KNBS and World Bank (1970-2020)