THE EFFECT OF VALUE ADDED TAX ON ECONOMIC GROWTH IN KENYA

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Full Length Research

Available Online at: http://www.iajournals.org/articles/iajef_v1_i5_10_30.pdf

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ABSTRACT

The study's objective was to determine the effect of value added tax on economic growth in Kenya. The research design adopted in this study was causal study. The target population for this study consisted of the quarterly reports on the state of the Kenyan economy in relation to productivity as measured by Gross Domestic Product (GDP), consumer prices as measured by consumer price indexes (CPI), and employment as measured by the unemployment rate, from the inception of VAT as administered by Kenya Revenue Authority (KRA) from 1990 to 2014. This study used secondary data which consisted of VAT rates, gross domestic product growth rates, consumer price indices and unemployment rates which were obtained from Kenya Revenue Authority (KRA), International Monetary Fund (IMF), Kenya National Bureau of Statistics (KNBS) and The World Bank data bases respectively, for the study's period as this period is representative and long enough to capture the responsiveness of changing VAT rates. With regard to the effect of VAT rates on economic growth as measured by GDP, the findings indicated that a percent change in the incident rate of GDP is an increase of 7% for every unit decrease in VAT. It can therefore be concluded that there exists a significant negative relationship between VAT rates and GDP; hence the researcher recommended that KRA should strive to reduce and/or maintain a low VAT rate in order to increase overall GDP. As regards the effect of VAT rates on economic growth as measured by CPI, the findings indicated that a percent change in the incident rate of CPI is an increase of 9.2% for every unit increase in VAT. It can therefore be concluded that there exists an insignificant positive relationship between VAT rates and CPI; hence the researcher recommended that KRA should strive to reduce and/or maintain a low VAT rate in order to maintain low levels of inflation (CPI) within the economy. With regard to the effect of VAT rates on economic growth as measured by unemployment rate, the findings indicated that a percent change in the incident rate of unemployment rate is an increase of 1.2% for every unit increase in VAT. It can therefore be concluded that there exists a significant positive relationship between VAT rates and unemployment rate; hence the researcher recommended that KRA should strive to reduce and/or maintain a low VAT rate in order to maintain low unemployment rates within the economy.

Key Words: *value added tax, VAT, economic growth, Kenya*

INTRODUCTION

Governments in both developed and developing countries collect taxes to fund public services. According to Anyanwu (1997) tax is as a compulsory levy by the government on individuals, companies, goods and services to raise revenue for its operations and to promote social equity through the redistribution of income effect of taxation. Barnett and Grown (2004) argue that

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taxation is the only known practical manner for collecting resources in order to finance public expenditure for goods and services consumed by any citizenry.

Kaldor (2004) pointed out the importance of government revenue in accelerating economic development. Whatever the prevailing ideology or political situation of a particular country, it must steadily expand a host of non-revenue yielding services such as education, health, infrastructure, and social security. Toye (2008) asserted that the link between taxation and economic development is a link between a universal desire and a form of government action that is believed to be a means to that end. To this end, one of the most important policy upon which most economists agree is that emerging nations must increasingly mobilize their own internal resources to provide economic growth. The most important instrument by which resources are marshaled is through the implementation of an effective tax policy.

Consequently, tax systems of different countries include taxes accrued on the basis of simplified accounting, or using indirect methods of tax liability assessment. The totality of the said taxes, ways and methods for their accrual comprises the special tax treatment within the national taxation system labeled with the term presumptive taxation. This notion incorporates also methods of monitoring or adjustment of liabilities related to the payment of regular taxes alternative to the accrual on the basis of the taxpayer's financial statements (Makedonskiy, 2005).

It is commonly accepted that there are two aspects to a state's sovereignty: the power over a territory, that is enforcement jurisdiction, and the power over a particular set of subjects, that is political allegiance. This binary nature of sovereignty was strongly rooted in the minds of the people during the 19th and 20th century and exercised a significant influence in the fashioning of one state's jurisdiction to tax. Conscious that taxes ought to be confined to taxable subjects and objects that have some sort of connection with the imposing state, policy makers reached the conclusion that a legitimate tax claim ought to be either based on the relationship to a person, that is a personal attachment, or on the relationship to a territory, that is a territorial attachment (Schon, 2010).

According to Umeora (2013) taxation forms the most important sources of revenue to the government. Tax is a compulsory payment imposed by various tiers of government on individuals and corporate organizations. The most basic things about taxation are that taxation is compulsory and, imposed by authority of government on people within a territory. Since it is compulsory, any person who is within the jurisdiction must pay or be given some form of punishment. Also there is no 'quid pro quo' between tax payer and how the government spends the tax paid. In other word the governments need not to explain to a payer how his own particular payment will be utilized.

Most countries impose taxes on both income and consumption. While income taxes are levied on net income over an annual tax period, consumption taxes operate as a levy on expenditure relating to the consumption of goods and services, imposed at the time of the transaction. There are a variety of forms of income and consumption taxes. Income tax is generally due on the net income realized by the taxpayer over an income period. In contrast, consumption taxes find their taxable event in a transaction, the exchange of goods and services for consideration either at the last point of sale to the final end user, or on intermediate transactions between businesses, or through levies on particular goods or services such as excise taxes, customs and import duties. Income taxes are levied at the place of source of income while consumption taxes are levied at the place of destination (OECD, 2014).

Value added tax (VAT) is a consumption tax, levied at each stage of the consumption chain and borne by the final consumer of the product or service. The administration of VAT is relatively easy, unselective and difficult to evade. Countries all over the world, look for ways to boost their revenue, this facilitated many nations to introduce value added tax on goods and services. For instance in Africa, VAT has been introduced in Benin Republic, Cote d'Ivore, Guinea, Kenya, Madagascar, Mauritius, Senegal, Togo, Nigeria (Adereti, Adesina & Sanni, 2011).

Lejeune (2011) points out that German businessman Wilhelm Von Siemens is credited with coming up with the idea of VAT in the 1920s. A value added tax (VAT) is a tax on the value that a business firm adds to the things it buys from other firms in producing its own product. The VAT was implemented in France in 1954. Indirect taxes such as VAT generate a substantial part of tax revenue in many countries. Its spread has accelerated since, with strong support from the IMF, as it has now been implemented in 156 countries and in these countries it typically accounts for about one-quarter of all tax revenue. Despite its name, the VAT is not generally intended to be a tax on value added as such; rather it is usually intended as a tax on consumption.

According to Umeora (2013) VAT is a tax on estimated market value added to a product or service at each stage of its manufacture or distribution and the additions are ultimately added to the final consumer. End users of products and services bear the tax burden or the incidence because they cannot recover the tax paid on consumption of goods and services. On the other hand businesses can recover VAT they pay on goods and services because those goods and services are like intermediate goods and services. They use them to produce further goods and services that will be sold to other business in the supply chain or directly to final consumers. Value added tax levied at each stage on value added in the economic chain of supply and it is a constant rate.

The starting point of conventional economic growth theorisation is the neoclassical model of Solow (1956). The basic assumptions of the model are: constant returns to scale, diminishing marginal productivity of capital, exogenously determined technical progress and substitutability between capital and labour. As a result the model highlights the savings or investment ratio as

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important determinant of short-run economic growth. Technological progress, though important in the long-run, is regarded as exogenous to the economic system and therefore it is not adequately examined by this model. Turning to the issue of convergence/divergence, the model predicts convergence in growth rates on the basis that poor economies will grow faster compared to rich ones.

Another strand of literature, perhaps less influential, is the growth theory of cumulative causation developed by Myrdal (1957) and Kaldor (1970). Essential to this theory is the argument of 'cumulative causation' in which initial conditions determine economic growth of places in a self-sustained and incremental way. As a result, the emergence of economic inequalities among economies is the most possible outcome. Although there are centrifugal effects (positive spillovers) spreading growth from the more to the less advanced economies, they are incapable of bringing the system into a state of balance if market forces alone are left at work. In other words, economic policy has to come into play to correct those imbalances. In contrast to theories mentioned above, theories of cumulative causation has a medium term view and often described as "soft" development theories due to a lack of applied mathematical rigour (Plummer and Taylor, 2001).

From a more macro perspective, other theoretical approached have emphasised the significant role non-economic factors (at least in the conventional sense) play on economic performance. Thus, institutional economics has underlined the substantial role of institutions (Jutting, 2003), economic sociology stressed the importance of socio-cultural factors, political science focused its explanation on political determinants and others shed light on role played by geography and demography (Kalemli-Ozcan, 2002).

Economic growth is the basis of increased prosperity. Investment in new capital (both human and physical), the implementation of new production techniques and the introduction of new products are the fundamentals of the growth process. Through its effect on the return to investment or the expected profitability of research and development, taxation can affect what choices are made and, ultimately, the rate of growth (Gareth, 2000).

Most of the discussion on the link between taxation and economic performance focuses on the effects on GDP levels. Indeed, any policy that raises the level of GDP will increase the growth rate of GDP because effects on GDP levels take time. Also, transitional growth may be long-lasting, and so it has not proved possible to distinguish effects on long-run growth from transitional growth effects, although some elements of the tax system are likely to have a bearing for long-run growth. For instance, it is possible that taxes that influence innovation activities and entrepreneurship may have persistent long-run growth effects, while taxes that influence investment also can have persistent effects on growth but these will fade out in the long-run. In contrast, taxes affecting labour supply will mainly influence GDP levels (OECD, 2008).

Wasylenko (2007) indicates that the rate of growth can be affected by policy through the effect that taxation has upon economic decisions. An increase in taxation reduces the returns to investment (in both physical and human capital) and research and development. Lower returns mean less accumulation and innovation and hence a lower rate of growth. This is the negative aspect of taxation. Taxation however also has a positive aspect whereby, for instance, some public expenditure can enhance productivity, such as the provision of infrastructure, public education, and health care. Taxation provides the means to finance these expenditures and indirectly can contribute to an increase in the growth rate.

Beginning in the mid-1980's, tax reforms became part of the larger Structural Adjustment Programmes that were incorporated in the economic restructuring agreement between the Government of Kenya and the International Financial Institutions (Fjeldstad & Rakner, 2003). According to Adari (1997) sales tax was introduced in Kenya in the fiscal year 1971/72 and was later replaced by VAT, which was introduced in 1989/90 in the global economic arena as countries had to choose whether to open up or remain closed from the rest of the world.

VAT is charged on the supply of taxable goods or services made or provided in Kenya by a taxable person in the course of or in furtherance of any business carried on by that person and on the importation of goods and services into Kenya (VAT Act, Sec.2). The Value Added Tax Act Chapter 476 governs the administration of VAT. VAT has become a cornerstone in Kenya's tax and economic system, it is more than just an additional revenue source, it is the largest single source of tax revenues. VAT was perceived as the tax of the future in line with the country's objective of reducing reliance on direct taxes as well as diminishing the role of trade taxes (KIPPRA, 2004).

VAT was introduced with a standard rate of 17 percent, but with 14 other rates (the highest being 210 percent) that made the VAT appear more like a differentiated commodity tax regime. The rate or rates at which VAT is levied is an important consideration in the operation of VAT. VAT has undergone major rationalization with the maximum rate being reduced from 210% to 16% and the number of tax rates from 15 to 3 (KRA, 2010). On 2 September 2013, Kenya's VAT Act 2013 came into effect. There were numerous challenges faced by the Government and the business community in implementing the VAT Act. The VAT Act 2013 has drastically changed the content of the repealed VAT legislation by removing some provisions and introducing several new provisions. Notable changes include removal of VAT remission, removal of reduced VAT rate of 12%, incorporation of the previous subsidiary legislation into the principal legislation, reduction of schedules from eight to two schedules and bringing into tax charge previously zero rated and exempt supplies (Ernst & Young, 2014).

The theoretical effects from the perspective of a temporary reduction in VAT on the economy are mainly in three forms; with the first arising from the reduction and the next two from the anticipated increase. First there is an income effect as consumers benefit from the temporary

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reduction to the cost of living although this may be offset in part or full by expectations of possible increases in other taxes to pay for the cut. Secondly, there is an arbitrage effect as consumers buy, but do not consume non-perishable goods ahead of the announced increase. Thirdly there is a substitution effect. The cost of consumption after the anticipated increase rises relative to that before the increase, encouraging consumers to substitute consumption ahead of the increase for that afterwards (National Institute of Economic and Social Research, 2009).

Foley (2013) indicates that governments' expectation from long term VAT reduction is that it would be passed on to consumers in lower prices. This would increase demand and would generate higher employment in the economy. The scale of the eventual employment impact depends on the extent of the pass through in price reductions, the price elasticity of demand, (the more price elastic the demand the higher will be the increased demand arising from the price reduction) and the impact of increased production on employment levels.

Foley (2013) further notes that even if the above mechanism did not arise, there could still be economic gains from the VAT reduction. With unchanged prices the lower VAT rate would improve the commercial sustainability of enterprises through increasing profits or reducing losses, and avoid or reduce the number of future business collapses. In other words the reduced VAT rate could be used to improve operating margins. The improved margins could result in jobs being retained that would otherwise be lost through contraction or closure. However, this is not what is usually expected of the VAT reduction measure. Prices should be reduced which would increase demand and generate increased output and employment.

STATEMENT OF THE PROBLEM

Value added tax (VAT) has become a major source of revenue in many developing countries. In sub-Saharan Africa, for example, VAT was introduced in Benin, Côte d'Ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger, Senegal, Togo and Nigeria in the 1980/90s. Today, evidence suggests that in these countries VAT has become an important contributor to total government tax revenues (Ajakaiye, 2009). Governments however need to consider the effect of VAT on the economy alongside its contribution to total tax revenues. Globally, several studies have been undertaken to this end, for instance, Michael & Ben (2007) explore the causes and consequences of the spread of value added tax (VAT). The result shows that VAT has a significant but mixed impact. Saeed, Ahmad & Zaman (2012) analyzed the revenue effect of the value added tax (VAT), in the SAARC region. The result shows that most of the SARRC countries that adopted value added tax have gained a more effective tax instrument to upgrade their GDP to revenue ratio. In Kenya several studies on VAT have been undertaken, for instance, Asirigwa (2011) undertook a study whose objective was to evaluate the determinants of VAT revenue and come up with a model for predicting VAT revenue in future. The analysis showed that the determinants of VAT revenue have a significant effect on the responsiveness of VAT revenue. Ndambuki (2014) did a study that discussed critical literature on value-added tax (VAT) in

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Kenya relating to its contributions to economic growth rate. The analysis showed that regressive tax reforms revenue had a considerable contribution for the improvement of the welfare of citizens under the period of study for their inclusion in the VAT model resulted to be significant. However, this significance can also negatively impact on consumer prices and government revenue, for instance, according to PWC (2014) when a commodity is exempt from VAT, it means that the manufacturer incurs VAT on the raw materials yet they can't recover VAT on the sales. The manufacturer is therefore forced to adjust prices of the commodities to compensate for the irrecoverable VAT. This has in effect caused an increase in the prices of the basic consumer commodities such as milk, bread and tea leaves and medicaments since the enactment of the Kenyan VAT Act of 2013. The argument against zero rating of the basic consumer commodities has been that this leads to an increased administrative and financial burden of VAT refunds and that it eats into government revenue. Consequently, governments need to develop tax policies and tax systems that are guided by certain tenets. Since taxation affects incomes and prices of goods and services, individuals and businesses react differently in response to changes in income, and in relative prices, emanating from taxation. Therefore, analysis of the effects of tax policy is critical for government decision makers and the public to make informed policy decisions. This concern over the economy wide impact of VAT is all the more important because of the possibility that the tax may cause consumers to reduce their consumption of certain commodities that have direct and/or indirect effects on labor productivity. The primary objective of this study, therefore, was to determine the effect of value added tax economic growth in Kenya by answering the following research question: what is the effect of value added tax on economic growth in Kenya?

RESEARCH OBJECTIVE

The study's objective was to determine the effect of value added tax on economic growth in Kenya.

THEORETICAL REVIEW

VAT is an indirect tax levied on the consumption of goods and services, and it is charged at each stage of production and distribution chain up to the retail stage. VAT is also levied on imported taxable goods and services. Therefore, it is a tax on the difference between what a producer pays for inputs (raw materials, and services such as advertising) and what the producer charges for finished/final goods and services and hence the word "value added" (Institute of Economic Affairs, 2011). This section looks at relevant theories about indirect taxes. The economists have put forward many theories of taxation at different times to guide the state as to how justice or equity in taxation can be achieved.

The Benefit Theory

This theory holds the individuals should be taxed in proportion to the benefits they receive from the governments in public services and that taxes should be paid by those people who receive the direct benefit of the government programs and projects out of the taxes paid. It was developed in the seventeenth century by English philosophers Thomas Hobbes (1588-1679) and John Locke (1632-1704), and Dutch jurist Hugo Grotius (1583-1645) (Saleemi, 2005).

This theory has been subjected to severe criticism on the following grounds: If the state maintains a certain connection between the benefits conferred and the benefits derived, it will be against the basic principle of the tax. A tax, as we know, is compulsory contribution made to the public authorities to meet the expenses of the government and the provisions of general benefit. There is no direct substitution in the case of a tax. Secondly, most of the expenditure incurred by the state is for the general benefit of its citizens, it is not possible to estimate the benefit enjoyed by a particular individual every year. Thirdly, if we apply this theory in practice, then the poor will have to pay the heaviest taxes, because they benefit more from the services of the state. This is against the principle of justice (Saleemi, 2005).

The Ability-to-Pay Theory

This theory originates from the sixteenth century. It was scientifically extended by the Swiss philosopher Jean Jacques Rousseau (1712-1778), the French political economist Jean-Baptiste Say (1767-1832) and the English economist John Stuart Mill (1806-1873). This theory holds that the taxation should be levied according to an individual's income or ability to pay and is the basis of progressive tax as the tax rate increases by the increase of the taxable amount (Jones & Rhoades, 2011).

This theory is indeed the most equitable tax system since people with greater income or wealth and can afford to pay more taxes should be taxed at a higher rate than people with less individual income tax and has been widely used in industrialized economics. However, there is no solid approach for the measurement of the equity of sacrifice in this theory, as it can be measured in absolute, proportional or marginal terms. VAT does not tie in with this theory because the amount of VAT on a particular good will be the same for everyone, however much they earn. VAT is thus regressive since it represents a smaller proportion of a person's income as their income rises (Jones & Rhoades, 2011).

Equal Sacrifice Theory

Another suggestion to make a tax satisfy the theory of justice is that we take into consideration the sacrifice entailed by the taxpayer. The equal-distribution theory also known as Equal sacrifice or Proportionate theory holds that income, wealth, and transaction should be taxed at a fixed percentage; that is, people who earn more should pay more taxes, but will not pay a higher

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rate of taxes. It was suggested by J. S. Mill and some other classical economists order to satisfy the idea of justice in taxation (Musgrave & Musgrave, 1989).

These economists were of the opinion that if taxes are levied in proportion to the incomes of the individuals, it will extract equal sacrifice. Thus, equal sacrifice can be measured as (i) each taxpayer surrenders the same absolute degree of utility that s/he obtains from her/his income, or (ii) each sacrifices the same proportion of utility s/he obtains from her/his income, or (iii) each gives up the same utility for the last unit of income; respectively. The modern economists, however, differ with this view. They assert that when income increases, the marginal utility of income decreases. The equality of sacrifice can only be achieved if the persons with high incomes are taxed at higher rates and those with low income at lower rates. They favor progressive system of taxation, in all modern tax systems (Musgrave & Musgrave, 1989).

The Cost of Service Theory

Some economists were of the opinion that if the state charges actual cost of the service rendered from the people, it will satisfy the idea of equity or justice in taxation. The cost of service theory can no doubt be applied to some extent in those cases where the services are rendered out of prices and are a bit easy to determine, e.g., postal, railway services, supply of electricity, etc., etc. But most of the expenditure incurred by the state cannot be fixed for each individual because it cannot be exactly determined, for instance, the cost of service of the police, armed forces, judiciary, etc., to different individuals. Dalton has also rejected this theory on the ground that there is no quid pro qua in a tax (Kaplow, 2010).

EMPIRICAL REVIEW ON THE EFFECTS OF VAT ON ECONOMIC GROWTH

Michael & Ben (2007) explore the causes and consequences of the spread of value added tax (VAT). A panel study of 143 countries for 25 years were observed. The result shows that VAT has a significant but mixed impact. This implies that while some countries would have gained revenue from the adoption of VAT, others would not. Collectively, the adoption of VAT had a long run increase in overall revenue to GDP ratio of about 4.5 percent. However, allowing the impact of VAT to vary with country specifics will shift the effect to become negative though acting in the opposite direction are gains that tend to be greater in higher income and in more open economies.

Osoro (2003) examined the revenue productivity implications of VAT reforms in Tanzania. In the study, the tax buoyancy was estimated using double log form equation and tax revenue elasticity using the proportional adjustment method. The argument for the use of proportional method was that a series of discretionary changes had taken place during the sample period, 1979 to 1989, making the use of dummy variable technique impossible to apply. For the study period, the overall elasticity was 0.76 with buoyancy of 1.06. The study concluded that the tax reforms

in Tanzania had failed to raise tax revenues. These results were attributed to the government granting numerous tax exemptions and poor tax administration.

Denis (2010) investigated the relationship between Value Added Tax (VAT) and Gross Domestic Product (GDP) in Nigeria. The study finds that VAT is not effective as revenue earner; this implies that significant parts of GDP which represent aggregate national income as well as aggregate national expenditure are not collected as tax.

Wildford & Wildford (2008) estimated income-elasticity and buoyancy of VAT revenue in Central America for the period 1955 to 1974, using an exponential tax revenue function. The study found that income elasticity of the tax revenue was less than unity. This suggested that the tax structure was stable and therefore tax revenue grew less than proportionately in response to growth in income.

Saeed, Ahmad & Zaman (2012) analyzed the revenue effect of the value added tax (VAT), in the SAARC region. Panel data of SAARC countries from 1995 to 2010 on various macroeconomic factors were obtained to determine the effect of VAT on revenue ratio. The results indicate prosperous set of determinants of VAT adoption as it proves to be a vital instrument to collect tax and enhance revenue ratio. The result shows that most of the SARRC countries that adopted value added tax have gained a more effective tax instrument to upgrade their GDP to revenue ratio.

Zaman, Okasha & Iqbal (2012) examine the impact of value added tax in Pakistan's economy. Using household survey data to grasp the effect of value added tax on, social and economic life of the populace. Results show that VAT would disturb economic order of the society. Milambo (2001) used the Divisia Index method to study the revenue productivity of the Zambian VAT structure for the period 1981 to 1999. The results showed elasticity of 1.15 and buoyancy of 2.0, which confirmed that VAT reforms had improved the revenue productivity of the overall tax system. However, these results were not reliable because time trends were used as proxies for discretionary changes and this was the study's major weakness.

Salti & Chabaan (2010) studied the effect of increasing rate of VAT by targeting poverty and inequality. An empirical model based on consumer theory of demand was established to study the impact. Simulation results showed that increased rate of VAT would have negative significant impact on poverty. Although the increased rate would have a negative impact on overall consumption, yet its effect on poor is greater compared to the rich. Adereti, Sanni & Adesina (2011) studied the contribution of VAT to GDP in Nigeria. Their findings show that VAT revenue to total tax revenue averaged 12.4% which they considered low compared to other African countries such as Ivory Coast, Kenya and Senegal that had 30%. The study also observed a positive and significant correlation between VAT and GDP.

Smith, Islam & Moniruzzaman (2011) attempt to analysis the contribution and performance of VAT in Bangladesh compared to other developing countries. The result shows that the performance of VAT was quite satisfactory in the initial years; afterwards, VAT collection remained stagnant at a certain level. The study finds that the stagnation happened as a result of: relatively small number of VAT tax-payers, a general lack of awareness, and a weak monitoring system.

Luthuanian, Bikas & Rashkauskas (2011) looked at the impact of VAT standard tariff, reduced tariffs and shadow economy on income from this tax. The Lithuanian VAT structure, the dynamics of income from this tax and amendments in the Law on Value Added Tax in terms of narrowing and widening the taxable base according to the theoretical analysis of the sources were analyzed using multiple regression, correlation, and optimization and C-effectiveness ratio analysis. The analysis revealed that, the amendments in the Law on Value Added Tax in terms of narrowing and widening the taxable base has influenced the amount of income from VAT collected to the budget.

Samimi & Abdolahi (2011) scan the impact of implementing Value Added Tax on Export of goods and services in selected countries. Four different indices for export; export of goods and services, export of goods and services (BOP), export of goods and services (annual % growth), export of goods and services (% of GDP) to investigate the sensitivity to different definitions. Findings of the study based on Mean Difference Statistical Test in a two three-year periods before and after introduction of VAT show that, in different indices, the impact of VAT on export is positive.

RESEARCH METHODOLOGY

Research Design

Chandran (2004) defines research design as an arrangement of conditions for collection and analysis of data in a way that combines their relationship with the purpose of the research to the economy of procedures. It concerns the several considerations a researcher should think about and adhere when carrying out a research project. The choice of a research design is determined by the research purpose, categories of data needed, data sources and cost factors among others. The research design adopted in this study was causal study. In causal research design, the problem under investigation is structured; the aim being to establish a "cause and effect" relationship between one or more variable with other variables, and measure the extent of relationship between the variables. It attempts to explore cause and effect relationships where causes already exist and cannot be manipulated. It uses what already exists and looks backward to explain why. If one or more independent variables change, then we should expect a change in the dependent variable. The aim of causal research is to provide explanations and specify the

nature of functional relationship between two or more variables (Kothari, 2004). This study identified the effect of VAT on economic growth in Kenya.

Population

Mugenda & Mugenda (2003) define population as an entire group of individuals, events or objects having a common observable characteristic. The target population for this study consisted of the quarterly reports on the state of the Kenyan economy in relation to productivity as measured by Gross Domestic Product (GDP), consumer prices as measured by consumer price indexes (CPI), and employment as measured by the unemployment rate, from the inception of VAT as administered by Kenya Revenue Authority (KRA) from 1990 to 2014.

Data Collection

This study used secondary data which consisted of VAT rates, gross domestic product growth rates, consumer price indices and unemployment rates which were obtained from Kenya Revenue Authority (KRA), International Monetary Fund (IMF), Kenya National Bureau of Statistics (KNBS) and The World Bank data bases respectively, for the study's period as this period is representative and long enough to capture the responsiveness of changing VAT rates.

Data Analysis

MacDonald & Lattimore (2010) indicate that the time varying regression models, poisson and negative binomial regression models, are designed to analyze count data. In this study poisson regression was used to determine the effect of VAT on economic growth (dependent variable) that consists of count data. Counts are all positive integers and for rare events the Poisson distribution (rather than the Normal) is more appropriate since the Poisson mean > 0. So the logarithm of the response variable is linked to a linear function of explanatory variables such that:

$$\log_e (Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon \text{ and so } Y = (e^{\beta_0})(e^{\beta_1 X_1})(e^{\beta_2 X_2}) + \epsilon$$

Where: Y is the dependent variable (economic indicator)

$X_1, X_2 \dots$ are the independent variables (VAT rates)

β_0 = Constant

$\beta_1, \beta_2 \dots$ are regression coefficients or change included in Y by each X value

ϵ =is the error term

The researcher conducted multiple regression analysis for each economic indicator whereby the dependent variable was the specific economic indicator, that is, GDP, CPI and unemployment rate over the study's period, whereas the independent variables were the various VAT rates

introduced by government over the same period. Pearson Chi-Square was used to test the significance of the models. In addition, data was also analyzed using three major descriptive statistics for each single variable namely: distribution; central tendency; and dispersion. Frequency distribution tables were used to present distribution; Mean was used to estimate central tendency; while standard deviation was used as a more accurate and detailed estimate of dispersion. The researcher then presented the findings using appropriate graphs and tables.

RESEARCH RESULTS

From the inception of VAT in Kenya as administered by Kenya Revenue Authority (KRA) from 1990 to 2014. In 1989, the government passed legislation to introduce a credit-invoice value-added tax, which became effective on January 1, 1990. At this time the concept of tax policy simplicity had not firmly taken root in Kenya: the VAT was introduced with a standard rate of 17 percent, but with 14 other rates (the highest being 210 percent) that made the VAT appear more like a differentiated commodity tax regime. This multiplicity of rates was particularly difficult to rationalize in light of the fact that excise taxes on specific classes of goods were maintained during (and indeed after) the transition and implementation of the VAT. The high and wide range of rates is thought to have led to widespread misclassification and other methods of tax evasion. In response to these concerns, the number of VAT rates was quickly reduced to four by 1993-94, when the top rate was set at 40 percent. Since then, the rates have been further lowered, and currently there is just a single standard rate of 16 percent, with some sales zero-rated and others exempt.

In this study, GDP was used as an economic indicator as it indicates the broadest quantitative measure of a nation's total economic activity. More specifically, GDP represents the monetary value of all goods and services produced within a nation's geographic borders over a specified period of time. The Gross Domestic Product (GDP) in Kenya was worth 60.80 billion US dollars in 2014. The GDP value of Kenya represents 0.10 percent of the world economy. GDP in Kenya averaged 24.31 USD Billion from 1990 until 2014, reaching an all time high of 60.80 USD Billion in 2014 and a record low of 8.80 USD Billion in 1993.

The second economic indicator was CPI (inflation) as measured by the consumer price index, which reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. In Kenya, the Consumer Price Index (CPI) is based on a fixed basket of goods and services bought in the base year. This basket tends to be outdated with time due to changes in the social and economic characteristics of the population. New goods and services come into the market as the old ones disappear. There are also changes in consumer behaviour, incomes, tastes and preferences. All these factors affect the relative importance of some goods and services. Thus, the CPI series based on the 1993/94 Urban Household Budget Survey (UHBS), does not reflect current consumption patterns which are affected by the availability of goods and services which

have entered the market since then. Prior to the 1993/94 UHBS, CPI used to be based on the Household Budget Survey that was carried out in 1982. KNBS revised the 1994 urban CPI basket so as to reflect the prevailing consumption and expenditure patterns. Price relatives for the new basket are based on February 2009 equal to 100. Over the study's period, Kenya had a maximum inflation rate of 46% in 1993, experienced the lowest rate of 1.6% in 1995, and had an average inflation rate of 12.94% (see appendix I). Table 4.5 illustrates the model summary used in this study and indicates the adjusted R Square value which gives the most useful measure of the success of the model, hence from the table it is evident that the model had accounted for 6.1% of the variance in Consumer Price Index (CPI) in Kenya over the study's period.

The third economic indicator was unemployment rate which refers to the share of the labor force that is without work but available for and seeking employment. Over the study's period, Kenya had the highest unemployment rate of 10.1% between 1990 and 1993, experienced the lowest rate of 9.2% between 2012 and 2014, and had an average unemployment rate of 9.66%.

In this study poisson regression was used to predict economic growth (dependent variable) that consists of count data based on GDP, CPI and unemployment rate; and VAT rates over the study's period comprised the independent variable. Counts are all positive integers and for rare events the Poisson distribution (rather than the Normal) is more appropriate since the Poisson mean > 0.

With regard to the effect of VAT rates on economic growth as measured by GDP, the coefficient for GDP was -0.07, which means that the expected increase in log count for a one-unit increase in GDP is -0.07. Therefore, a percent change in the incident rate of GDP is an increase of 7% for every unit decrease in VAT. This finding was unique in the sense that most studies correlated VAT and GDP based on gained revenue from the adoption of VAT to GDP ratio (Adereti, Sanni & Adesina, 2011; Denis, 2010; Michael & Ben, 2007). This study however, considered the effect of changes in VAT rates of overall GDP, hence the findings can be interpreted to infer that a reduction in VAT rates results in increased overall GDP in terms of billions of USD. Moreover, this finding is in line with Foley (2013) who indicates that governments' expectation from long term VAT reduction (as has been the Kenyan case) is that it would be passed on to consumers in lower prices. This would increase demand and would generate higher supply of goods and services through an increase in productivity, which will eventually translate to an increase in overall GDP.

As regards the effect of VAT rates on economic growth as measured by CPI, the coefficient for CPI was 0.092 which means that the expected increase in log count for a one-unit increase in CPI is 0.092. Therefore, a percent change in the incident rate of CPI is an increase of 9.2% for every unit increase in VAT. This finding is in line with Foley (2013) who indicates that governments' expectation from long term VAT reduction is that it would be passed on to consumers in lower prices. However, the reverse would also be true as an increase in VAT would also result in

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increased consumer prices leading to an increase in CPI (inflation) as most business traditionally transfer the impact of taxation to the consumer.

With regard to the effect of VAT rates on economic growth as measured by unemployment rate, the coefficient for unemployment rate is 0.012 which means that the expected increase in log count for a one-unit increase in unemployment rate is 0.12. Therefore, a percent change in the incident rate of unemployment rate is an increase of 1.2% for every unit increase in VAT. This finding is also in line with Foley (2013) who indicates that governments' expectation from long term VAT reduction is that it would be passed on to consumers in lower prices. This would increase demand and would generate higher employment in the economy. The scale of the eventual employment impact depends on the extent of the pass through in price reductions, the price elasticity of demand, (the more price elastic the demand the higher will be the increased demand arising from the price reduction) and the impact of increased production on employment levels.

REGRESSION ANALYSIS

The researcher conducted multiple regression analysis whereby the dependent variable was VAT rates and GDP, CPI and unemployment rate over the study's period were the independent variables. In this study, the "simultaneous" method (which SPSS calls the Enter method) was used whereby the researcher specified the set of predictor variables that made up the model. Table 1 illustrates the model summary used in this study and indicates the adjusted R Square value which gives the most useful measure of the success of the model, hence from the table it is evident that the model had accounted for 13% of the variance in VAT rates in Kenya over the study's period. Table 2 illustrates the Analysis of Variance (ANOVA) which assesses the overall significance of the model. According to the table $p < 0.05$, (0.118), indicating that there was insufficient evidence that the model is useful in explaining VAT rates in terms of GDP, CPI and unemployment rate in Kenya at 5% confidence level.

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489	.239	.130	1.0073	.239	2.198	3	21	.118

a. Predictors: (Constant), Unemployment Rate, CPI, GDP

Table 2: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.690	3	2.230	2.198	.118
	Residual	21.310	21	1.015		
	Total	28.000	24			

a. Predictors: (Constant), Unemployment Rate, CPI, GDP

b. Dependent Variable: VAT

Table 3 illustrates the Pearson's correlation between the predictor variables. According to the table, there was a significant negative relationship between economic growth (GDP) and VAT rates (-0.429), an insignificant positive relationship between CPI and VAT rates (0.316), and a significant positive relationship between Unemployment rate and VAT rates (0.472) over the study's period.

Table 3: Correlations

		VAT	GDP	CPI	Unemployment Rate
VAT	Pearson Correlation	1.000	-.429*	.316	.472*
	Sig. (2-tailed)	.	.032	.124	.017
	N	25	25	25	25
GDP	Pearson Correlation	-.429*	1.000	-.283	-.895*
	Sig. (2-tailed)	.032	.	.170	.000
	N	25	25	25	25
CPI	Pearson Correlation	.316	-.283	1.000	.453*
	Sig. (2-tailed)	.124	.170	.	.023
	N	25	25	25	25
Unemployment Rate	Pearson Correlation	.472*	-.895*	.453*	1.000
	Sig. (2-tailed)	.017	.000	.023	.
	N	25	25	25	25

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

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

Table 4 illustrates the poisson regression parameter estimates and includes the regression coefficients for each of the variables along with robust standard errors, p-values and 95% confidence intervals for the coefficients. The coefficient for GDP is -0.07, which means that the expected increase in log count for a one-unit increase in GDP is -0.07. Therefore, a percent change in the incident rate of GDP is an increase of 7% for every unit decrease in VAT. The coefficient for CPI is 0.092, which means that the expected increase in log count for a one-unit increase in CPI is 0.092. Therefore, a percent change in the incident rate of CPI is an increase of 9.2% for every unit increase in VAT. The coefficient for unemployment rate is 0.012, which means that the expected increase in log count for a one-unit increase in unemployment rate is 0.12. Therefore, a percent change in the incident rate of unemployment rate is an increase of 1.2% for every unit increase in VAT.

Table 4: Parameter Estimates

Parameter	B	Std. Error	95% Wald Confidence Interval		Hypothesis Test		
			Lower	Upper	Wald Chi-Square	df.	Sig.
GDP	-4.877	.6297	-6.112	-3.643	59.984	1	.032
	-.07	.0104	-.015	.091	45.195	1	.032
CPI	-4.877	.6297	-6.112	-3.643	59.984	1	.124
	.092	.0187	.1501	.091	65.045	1	.124
Unemployment	-4.877	.6297	-6.112	-3.643	59.984	1	.000
Rate	.012	.0218	.005	.036	21.698	1	.002

Dependant Variable: VAT

Model: (Intercept) GDP, CPI, Unemployment Rates

CONCLUSIONS

With regard to the effect of VAT rates on economic growth as measured by GDP, the findings indicated that a percent change in the incident rate of GDP is an increase of 7% for every unit decrease in VAT. It can therefore be concluded that there exists a significant negative relationship between VAT rates and GDP; hence the Kenyan government should strive to reduce and/or maintain a low VAT rate in order to increase overall GDP. As regards the effect of VAT rates on economic growth as measured by CPI, the findings indicated that a percent change in the incident rate of CPI is an increase of 9.2% for every unit increase in VAT; however, this was not significant at 5% confidence level. It can therefore be concluded that there exists an insignificant positive relationship between VAT rates and CPI; hence the Kenyan government should strive to reduce and/or maintain a low VAT rate in order to maintain low levels of inflation (CPI) within the economy. With regard to the effect of VAT rates on economic growth as measured by unemployment rate, the findings indicated that a percent change in the incident rate of unemployment rate is an increase of 1.2% for every unit increase in VAT. It can therefore be concluded that there exists a significant positive relationship between VAT rates and unemployment rate; hence the Kenyan government should strive to reduce and/or maintain a low VAT rate in order to maintain low unemployment rates within the economy.

RECOMMENDATIONS

In line with the findings and conclusions of the study the following were recommended:

1. KRA should strive to reduce and/or maintain a low VAT rate in order to increase overall GDP.
2. KRA should strive to reduce and/or maintain a low VAT rate in order to maintain low levels of inflation (CPI) within the economy.

3. KRA should strive to reduce and/or maintain a low VAT rate in order to maintain low unemployment rates within the economy.

REFERENCES

Adari, M. M. (1997). Value Added Tax in Kenya. *M.A. Research Paper*, University of Nairobi.

Adereti, S. A., Sanni, M. R. & Adesina J. A. (2011). Value Added Tax and economic Growth of Nigeria. *European Journal of Humanities and Social Science. 10*(1), 456-471.

Ajakaiye, D. O. (2009). Price Effects of Value Added Tax in Nigeria. *Policy Analysis Series, 2*(2), 48-68

Anyanwu, J. C. (1997). *Nigeria Public Finance*. Onitsha, Joance Education Publishers.

Asirigwa, D. A. (2011). The determinants of value added tax revenue in Kenya. *International Academic Journal of Economics and Finance, 1* (4), 14-31.

Barnet, K. & Grown, C. (2004). Gender impact of government revenue collection: The case of taxation. *Commonwealth Economic Paper Series Economic. Affairs of the Commonwealth Secretariat*, London, United Kingdom.

Chandran, E. (2004). *Research methods: a quantitative approach with illustrations from Christian ministries*. Nairobi: Daystar University.

Cooper, D. R. & Schilder, P. J. (2003). *Business research methods*. 8th edition. New Delhi: MacGraw- Hill, Inc.

Denis, B. (2010). Investigating the Relationship Between VAT and GDP in Nigerian Economy. *Journal of Management and Corporate Governance*, 2

Gareth, D. M. (2000). Taxation and Economic Growth. *Fiscal Studies, 21*, no. 1, pp. 141–168

Golit, P. D. (2008): Appraising Nigeria's Tax Efforts: A Comparative Econometric Analysis, *Economic and Financial Review*, Central Bank of Nigeria, 46(1): 69-103.

Jones, S. & Rhoades S. (2011). *Principles of Taxation for Business and Investment Planning, 2012*. McGraw-Hill Companies, Inc.

Kaldor, T. (2004). The Determinants of Taxation in Britain: An Empirical Test. *Journal of Public Policy, 5*, 365-386.

Kaplow, L. (2010). *The Theory of Taxation and Public Economics*. Princeton University Press.

KIPPRA (2004). Tax Compliance Study: Tax Policy Unit in Macroeconomics Division. *Kenya Institute of Public Policy Research and Analysis*, Nairobi.

Kothari, C. R. (2004). *Research Methodology, Methods and Techniques*. (4th ed). NEW Age International Limited, India.

Le, T. M. (2003). Value Added Taxation: Mechanism, Design, and Policy Issues. *Paper prepared for the World Bank course on Practical Issues of Tax Policy in Developing Countries*. Washington D.C.

MacDonald, J. & Lattimore, P. (2010). *Count models in criminology*. In Piquero A. and Weisburd, D. (eds.) Handbook of Quantitative Criminology. Springer.

Makedonskiy, S. N. (2005). Taxation mechanisms based on simplified and indirect evaluation of tax liabilities. *Russian-European Centre for Economic Policy (RECEP)*

Michael, K and Ben, L (2007). The Value-Added Tax: Its Causes and Consequences. *IMF, Working Paper 183*.

Milambo, M. (2001). Elasticity and Buoyancy of the Zambia Tax System. Unpublished *M.A. Paper*, University of Nairobi.

Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods: quantitative and qualitative approaches*. Nairobi: Acts press.

Musgrave, R. A., & Musgrave, P. B. (1989). *Public Finance in Theory and Practice*. (4th ed). McGraw Hill Higher Education, New York.

OECD (2014). Fundamental principles of taxation: Addressing the tax challenges of the digital economy. Assessed from http://www.oecd-ilibrary.org/docserver/download/2314251ec005.pdf?expires=1440376447&id=id&accname=guest&checksum=466CA0E966A06E6CEFA3866D49F64FAD

OECD (2008). Tax and economic growth. *Economics department working paper no.620*. Assessed from http://www.oecd.org/tax/tax-policy/41000592.pdf

Osoro, N. E. (1993). Revenue Productivity Implications of Tax Reform in Tanzania. *Research Paper No. 20*, Nairobi; African Economic Research Consortium.

Owolabi, S. A & Okwu, A. T. (2011). Empirical Evaluation of Contribution of Value Added Tax to Development of Lagos State Economy, Middle Eastern Finance and Economics, *EuroJournals Publishing*, 9, assessed from http:www.eurojournals.com/MEFE.htm

PWC (2014). Navigating the Grey: National Budget/June 2014. *Tax Matters*. Special Edition

Saeed, A., Ahmad, A. & Zaman, K. (2012). Validity of the Value Added Tax in the SAARC Region. *The Romanian Economic Journal, 5* (6), 143- 170

Saleemi, N. A. (2005). *Taxation I Simplified.* (5th ed). Saleemi Publications Limited, Nairobi.

Salti, N. & Chaaban, J. (2010). The Poverty And Equity Implications Of A Rise In The Value Added Tax: A Microeconomic Simulation For Lebanon. *Journal of Economic Literature classification, 10* (2), 1-30

Samimi, A. J. & Abdolahi, M. (2011). Value Added Tax & Export: the Case of Selected Countries around the World. *Journal of Economics and Behavioural Studies 2*(6), 298-305

Smith, A. M C., Islam, A. & Moniruzzaman, M. (2011). Consumption Taxes in Developing Countries – The Case of the Bangladesh VAT. *IMF Working Paper, 82*. Assessed from http://hdl.handle.net/10063/2167

Shome, P. (2008). The Elasticity of Developing Country Tax System. *Economic And Political Weekly*. 23, 34.

Umeora, C. E. (2013). The effect of Value Added Tax on the Economic Growth of Nigeria. *Journal of Economics and Sustainable Development*, 4, No.6,

Wasylenko, M. (2007). Taxation and Economic Development: The State of the Economic Literature. *Center for Policy Research at the Maxwell School of Citizenship and Public Affairs*, Syracuse University

Wildford, S. D. & Wildford, W. T. (2008). *Estimates of Revenue Elasticity and Buoyancy in Central America: 1955- 1974*. London: Frank Cass & Co. Ltd. Taxation and Economic Development, 83 - 100.

Zaman, Q, Okasha, A. & Iqbal, M. (2012). Value Added Tax-Theoretical Aspects and Empirical Evidence for Pakistan. *Journal of Managerial Sciences, 44* (1), 45-59