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Effects of Infrastructural Development on Tax Revenue Performance in Kenya

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Abstract:- Kenya Revenue Authority (KRA) collects more than 95 % of all government revenue. Through taxation, govern t is able to raise revenue that is sufficient for public spending without too much borrowing. Tax is a compulsory payment imposed by the government on the incomes and profits of individuals and corporate bodies. Taxation is the central government main source of revenue income. The amount of tax revenue realized or expected by any state is determined and influenced by various economic factors. The factors range from micro to macro-economic. In Kenya, revenues from taxes have, for quite some time, remained low relative to the effort and tax policies in place. The Kenya government has always been in search for the appropriate policy strategy to enhance tax revenues boost its revenue profile. This study sought to find out the effect of infrastructural Development Index (INFDI) on tax revenue performance in Kenya. The study used annual time series secondary data for the period 2003-2018, estimate a linear model of revenue performance and the selected macro -economic factor. The data was source from the Central Bank of Kenya, Kenya National Bureau Statistics (KNBS), Ministry of Finance data on National Budgets and other Government records. The study used correlation and regression analysis research design. The findings established that INFDl had a positive relationship with tax revenue collected. The value which is used to show to what percent do the explanatory variables explain the dependent variable was found to be 0.7697 while the p values for all variables were found to be significant at 5% level of confidence. The findings will inform the government on what areas to invest its resources in order to boost and improve tax revenue performance.

Keywords;- *Tax Revenue Performance, Infrastructure Development Index.*

I. INTRODUCTION

➢ *Tax revenue performance*

Raising revenue is the basic function of any state. For any government to perform its function well it needs to raise money e.g. provision of security tests citizens, provide justice or administer a bureaucracy and run other development agendas. Tax is a compulsory contribution paid by citizens and corporate entities to the government (Hyman,1987). Taxation has been a topic of discussion for decades in the global arena as countries strive to maximize tax revenue collection in order to raise the revenue needed for economic development without eroding the tax base. Evidence from different countries globally shows that most countries rely on foreign direct investment (FDI) and taxation to boost tax revenue collection (Deloitte, 2013). The main challenge of national governments worldwide is to continually increase the welfare of its people through the implementation of appropriate economic policies and programs (Tripath, 2012)

Globally Countries with a low tax incomes or low enforcement of tax laws have been facing tough times. Such international players as the Organization for Economic Co-operation and Development (OECD), the World Bank and the G20 have been calling for more determined action to combat tax evasion and avoidance. With the world fighting the financial and economic crisis, there has been an increasing pressure on tax havens to increase transparency of their tax systems and put an end to unfair competitive practices. For instance, from the year 2003-2015 Malaysia, Colombia and Vietnam have been experiencing a decline in tax performance which was a result of Increase in non-tax revenue (Makislvanya,2015). Countries with high tax performance predominate in Western Europe as well as in many formerly socialist states from Eastern Europe and the former Soviet Union. The highest income countries are the USA, Japan, Ireland and Switzerland (European Commission 2014). In contrast South and Southeast Asia., Bangladesh, Pakistan, Malaysia,Cambodia,Indonesia,Sri Lanka, India, Nepal and the Philippines are among the low performers. Similarly, Many Latin America and Caribbean countries are below the trend line, with Guatemala, Venezuela, Paraguay, Panama, Dominican Republic and Colombia in group of low tax performers except Brazil and Guyana. (Peerson,2013)

Regionally, many of the African developing countries face difficulties in generating revenues for the public purposes. In Africa most of the government budgets have deficits which hinder the government's investments in both human and capital investments which are necessary for economic growth. Programs supported by international monetary fund in sub-Saharan African countries in recent years have incorporated measures to raise tax revenues and restructure tax system in these countries. Countries with relative high tax revenues tend to have high tax index. In Africa in the year 2012 taxes on goods and services accounted for the largest share with 5.2% of African GDP, International trade on taxes accounted for 5% of the GDP and taxes on profits and income accounted for 4.6% of the GDP (World Bank,20 14). Some countries in sub Saharan

Africa made progress in improving their tax system in the recent times, for instance Benin has undertaken a comprehensive program of reporting both tax policy and administration resulting to improvement of the tax structure and increase in the tax share to GDP ratio. Similarly, countries such as Ghana, Burundi, Liberia, Morocco and Algeria have been ranked as the high tax performing countries in the recent study conducted in Africa by the World Bank, (World Bank, 2014). Whereas central African countries (for instance, Chad, Sudan, Central African Republic, Nigeria) are counted as low tax performers which have been related to armed conflicts and a larger amount of displaced persons (OECD, 2013).

In Kenya, revenues from tax are the single largest source of government budgetary resources. Between 1995 and 2004, tax revenue constituted 80.4% of total government revenue (including grants). Relatively, the importance of non-tax revenue is also significant in sustaining the public budget although, its importance is much less than the role of taxation given that its share over the same period was 15.1% Foreign grants play a minimal role as they have averaged only 4.5%. Given its central purpose, taxation has been applied to meet two objectives. First, taxation is used to raise revenue to fund public expenditures without recourse to excessive public sector borrowing (Glenday, 2002). Second, it is used to mobilize revenue in ways that are equitable and that minimize its disincentive effects on economic activities.

Over years, Kenya has moved from being a low tax burden country to a high tax burden country yet the country faces the obvious need for more tax revenues to maintain public services. Given the high tax burden, prospects to raise additional revenue seem bleak. In addition, Kenyans are yet to accept a tax paying "culture". On one hand, those with political power and economic ability are few and do not want to pay tax. On the other hand, those without political power are many, have almost nothing to tax, and do also resist paying taxes. Since no one enjoys paying taxes, there is mistrust between those collecting taxes and taxpayers. This mistrust generates a game theoretic coexistence between tax agents and tax payers, with agents perceiving taxpayers as criminals unwilling to pay their taxes, and tax payers wary of government agencies" high- handedness in collection of taxes (KRA, 2004). This creates the need for the tax agents to improve their image by building trust and public confidence. However, the tax system has continuously changed, in pursuit of the objectives of the Tax Modernization Program that came into force in 1986. The challenges that confront the tax authorities today are not much different from the pre-reform challenges. With Kenyan firms reporting that about 68.2% of profit is taken away in taxes, tax competitiveness is low and the country remains among the most tax unfriendly countries in the world. Tax evasion remains high, with a tax gap of about 35% and 33.1% in 2012 and 2013 respectively (KIPPRA, 2014). The tax code is still complex and cumbersome, characterized by uneven and unfair taxes, a narrow tax base with very high tax rates and rates dispersions with respect to trade, and low compliance (KlPPRA, 2004b).Given the destabilizing effects of deficits and the fact that the Government through Sessional Paper No 1 of 1986 (GOK, 1986)) came up with measures to address the problem. The most notable fiscal policy proposals were the Tax Modernization Program (TMP) that was adopted in 1986 and the Budget Rationalization Program that followed in 1987 (Muriithi and Moyi, 2003). The former program aimed at enlarging the government tax revenue base whereas the latter involved regulating expenditure through strict fiscal controls. Kenya has various types of tax as a means of collecting revenue and Kenya Revenue Authority keeps on making amendments in order to achieve its target each financial year.

- *Infrastructural development and Tax Revenue Performance*

Infrastructure is a pre-condition for any economy to thrive (Francois&Manchin,2017) transportation, electricity, water, hygiene, infrastructure, and educational facilities are all part and parcel of mankind (Rastogi,2012).Globally there has been a rise in infrastructural development with cities in American and Asian continent going through immense growth of mega structures in what is termed as annexation of developing towns and cities into one metropolitan area (Swerts&Denis,2014).Similarly China Europe and Brazil has experienced a rise in construction sector with key interest in the infrastructural expansion of its social facilities which have resulted to increase in industrial production and tax income hence improving tax performance (Sheena,2008).

In Africa Large-scale infrastructure programmes have been launched in most of the African countries as an essential part in long-term development plans aimed at improving income base from tax revenues (Musamba, 2010). According to Economic Commission for Africa reports (2017), 1nfrastructure investments in Ethiopia have been a vital part of two successful growth and Tax revenue transformation plans (2010-2015, 2016-2020). Besides joint projects with Djibouti, the government of Ethiopia has also expanded domestic railways and launched the construction of Africa's largest dam (the Grand Ethiopian Renaissance Dam) and a number of large industrial zones which has resulted to great improvements in the manufacturing sector an industrialization (Dinh,Palinade& Chandra, 2012) This has resulted to growth in tax revenue to GDP ratio in Ethiopia from 6.6% in 2009 to 9.4%in 2012 (World Bank,20 14).

For Tanzania, another country which aims at become the logistics hub in East Africa, investment in infrastructural development are also part of two consecutive five-year development plans (the second one started in 2016) for example, the construction of a railway connecting Dar es Salaam with Mwanza, the Stiegler's Gorge hydropower project, development and expansion of a number of mines, expansion of ports, and planned construction of the oil pipeline that will connect Ugandan oil fields with the Tanzanian port of Tanga.(Yarnin,& Sinkovics,20l7) As a result many investors from within and outside the region have been attracted into the

manufacturing sector because of the ease of accessibility y of the raw materials for industrial use which according to Tanzania Revenue Authority(2018) has been the contribution factors in the increase of custom and excise duty by 8.1% from 2013-2018 (TRA,2018). In Rwanda, Kenya and Uganda infrastructure investments are also an essential part of their development strategy in improving tax revenue performance (Musamba, 2010).

In Kenya, recent infrastructural development has been a major contributor to the foreign investment inflows that propelled industrialization and contributed to increasing tax revenues according to the income authorities (KRA 2019).In 2015 the government of Kenya embarked on a multibillion infrastructural projects including the expansion of its main airport aimed at boosting trade and cementing its status as a regional commercial hub which amounts to US$653 million (KNB S,20 18), the construction of a new tJS$l3.8billion railway in 2014 that will eventually link its Indian Ocean port of Mombasa with Uganda, Tanzania, Rwanda and Southern Sudan(Kaimenyi&Ndung'u,20l5).These projects according to Knight Frank global cities Report (2018) attracted many foreign direct investors into the country y who sought to invest in industrial sector due to accessibility of manufacturing raw materials from the hinterland and has resulted to increase in industrial tax revenue by 5% from 2015 — 2018 (KNBS,20I 8).In order for Kenya to achieve growth in tax revenue performance in line with the Kenya's vision 2030 infrastructural development will play a vital role in fostering this agenda. This study looked into the effects of infrastructural development in Kenya and how specifically it has affected the tax revenue performance within the period under study.

II. REVIEW OF LITERATURE

The study was anchored on Neo-classical theory of which explain the nexus between infrastructural development and tax revenue performance as discussed in the following subsections.

- *Neoclassical Theory of Investment*

Neoclassical theory was advance by Cockcroft and Riddell in 1991 .The theory states that the investment into a country is influenced by factors such as macroeconomic policies and taxation and how these policies and factors affect a firm expected rate of return. The theory argues that investment and development in research and development, technology transfers and introduction of new forms of human capital, growth in industries and the infrastructural development coupled with suitable policies such as tax incentives, ease of obtaining license and starting businesses and improved infrastructure will attract Multi National Enterprises into a country adding to increased investment, employment and finally the national income from tax revenues in the host country (Cadman, 2015).

When employment rates of a country increase, the income per capita of the host country increases meaning more income will be earned through income tax revenue (Fernandez&Mauro,2000). These needs translate in the long run to increased investments in the real estate sector, industrial sectors leading to increased revenues from custom and excise duty (Gacanja,2012). Taking the example of Kenya, through the massive investments in the infrastructural sector, the economy has been open up drawing foreign real estate developers, manufactures and many others investors who sought to exploit new markets for their products and services (Akulinda&Obwogi,2018). Additionally, as these foreign firms expand their operations into the host country, they bring along new ways of doing business (Wcindhall,20 10).This theory was relevant to the study since Kenya has an open and active relationship with their external foreign investors and therefore using concepts of Neo classical theory of investment, the study bring out the role that infrastructural development plays in influencing the performance of tax revenue in Kenya. This study was majorly guided by Neoclassical theory of investment.

- *Empirical Review*

A study done by (Tong , 2014) analyzed the dynamic relationships among transport infrastructure, economic output, and tax revenue performance in United States using the VAR approach developed by (Toda & Yamamoto, 1995) from I 990-20 14.The findings revealed both Granger causality tests and generalized impulse response functions in the study did not suggest a direct effect of transport infrastructure on aggregated economic output, while causality from economic output to transport infrastructure formation was observed Similar to (Cullison,2003), the findings suggested that expanding transport infrastructure capital, represented by highways and streets, provides relatively short and indirect impacts on aggregated economic output compared to expanding non-transport public infrastructure. However the above studies were done using VAR approach of analysis in relation to exports and infrastructure, a VECM model approach gave an insight in this current study.

Daviron & Ponte (2005) used a new panel dataset for 124 developed and developing counties, available for the period 1993-2004, to assess the impact of trade facilitation and other trade- related institutional constraints on tax revenue performance with particular reference to Africa. He estimated a standard gravity model augmented with trade facilitation, regulatory quality and infrastructure indicators, and control for endogeneity and remoteness. The study found out that effective trade facilitation through improved infrastructural development improves tax revenue performance in the longrun. The results of the study showed that trade facilitation reforms can need contribute to improved tax revenue performance in Africa. But other reforms, including the quality of the basic transport and communications infrastructure are also needed and are often more important than on the border trade facilitation reforms in facilitating export growth. This proposed stud y intends to find out how infrastructural development in Kenya affects the performance of tax revenues.

In a study done by Shepherd and Nicita in West African countries to investigate the role played by transport sector in trade from 2005-2017 using gravity model and panel data found out that tax revenue from trade in West Africa were affected by development in transport infrastructure, mainly *pans* and ICT (Hoekman & Nicita, 2018).These study findings are similar to the findings of Wilson ,Mann and Otsuki (2015) in Nigeria using causal research design posited that roads efficiency and the proxies for infrastructure quality for the services sector, such as the use, speed, and cost of the internet, significantly affected tax revenues from export flows .These studies were done in other trading blocs with different levels of infrastructure development compared to COMESA and EAC regions. This study therefore indented to find how infrastructural development affects tax revenue performance in Kenya which is a member of COMESA and EAC.

In a study conducted Kimani and Njoroge in 2015 on the effect of infrastructural development in Ken ya on the rates of tax revenue performance ,the study found out that infrastructural development have a positive significant effect on growth of tax revenue in Kenya. The study employed Least Square approach using tip series data from the 2005 - 20l5 .However in Contrast, Wamboye and Simiyu (2017) in a study on the relationship between infrastructure development and tax growth ,using Vector Error Correction Model found out that infrastructural development had moderate impact on tax revenue growth in the shortrun but no significant effect in the longrun. The above two studies gave contrasting results hence the need to investigate the relationship between infrastructural development and rates of tax revenue performance in Kenya using recent data which this current study has found out.

Kosgei (2017), using Granger casuality test found a positive link between infrastructural development and the growth of tax revenue in Kenya particularly the ad-valorem and excise duty tax .Similarly Kimani (20l7),Simiyu(2016) and Wanyama (2018) using the Pairwise manger Causality Test found a uni-direct causality between infrastructural development and tax growth rates in Kenya. In addition, unemployment levels was found to granger cause tax growth rates at 57% (Wanyama,20 18) .However, the above studies employed non-linear models to depict the relationship between the variables which does not consider the long run relationship between the study variables. In contrast, current study employed Vector Error Correction Model (V ECM) to depict the long run causality between infrastructural development and the rate of tax revenue performance in Kenya.

III. RESEARCH METHODOLOGY

The study adopted analytical research design using time series data from 2008-2018. Secondary data was obtained from Kenya Nation Bureau of Statistics (KNBS) publications as well as Kenya Revenue Authority (KRA) and World Bank website. The analytical research design was used in order to gain a better understanding and a more insightful interpretation of the result. The study data which were quantitative in nature were analyzed using descriptive as well as inferential statistics. Descriptive statistics included frequency distributions, mean, standard deviation and percentages. Inferential statistics included estimation of regression analysis to evaluate the relationship between infrastructural development and tax revenue performance in Kenya. Tax revenue performance was measured as Total sum of present year tax revenue compared to the previous year whereas infrastructural development index which is a Composite index comprising transport index, Electricity index and ICT index was measured as estimates from infrastructural development index.

➢ *Model Specification*

To establish if there is relationship between macro-economic factors (HDl, INFDI, ER) and tax revenue performance in Kenya, the researcher conducted a multiple regression analysis using the following model**;**

Where; Y= tax revenue performance which will be measured using tax revenue figures from the year 2003-20 18 available on KRA website.
$\dot{\alpha}$ = Constant.
β_1-.β_3. = The slope which represent the degree with which tax revenue performance changes as the independent variable change by one unit variable.
X_1 = Human Development Index (independent variable). Annual figures for the year 2003-20 18 will be retrieved from KNBS website.
X_2,= Infrastructure Development Index (independent variable) will be measured using.
Annual figures for the year 2003-2018 are available on KNBS website.
X_3=Exchange Rate(independent variable). Annual figures from the year 2003-20 18 will be retrieved from World Bank website.
n = error term t = time series

➢ *Estimation procedure*

The studies build on existing research studies and methodolologies using correlation research design. Several pre-diagnostic test were performed which included; summary descriptive, correlation test using pairwise correlation, unit root test using agumented Dickey Fuller, determination of optimum lags and finally co-integration test using Johansen Co-intention test. Vector Error Correction Model (VECM) was u in the regression analysis of the time series data captured within the period under study. Post diagnostic tests of the model under the research study were also performed which included; test for Multicollinearity, skewness kurtosis test for data normality, test for model stability and correlation among the variables and finally test for heteroscedasticity in the error term. The main advantage of using this design is that it enable the researcher to identity the factors and measure their performance. Linear relationships on the explanatory variables were tested using the pairwise correlation matrix. unit root tests was carried out to appraise the effect of shock and to avoid spurious regression to non- stationary variables by using Augmented Dickey Fuller test (ADF)

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statistics, This study used Breusch-Godfrey LM test to check for the presence of auto correlation. To test for the presence of Multicollinearity, this study used Variance Inflation Factor (VIF). For VlF values greater than 10, Multicollinearity is deemed to be present (Nachtscheim, 2004).This study used the Breusch- pagan test to check for the presence of heteroscedasticity (Gujarati, 2009).

IV. RESULTS AND FINDINGS

The study determined the descriptive nature of the data in order to check for the presence of outliers in the variables values. Mean was used to locate the center of the relative frequency distribution while standard deviation measured the spread of a set of observations. The descriptive results were presented as shown in table 4.1 below.

Table 4.1 Descriptive Statistics

variables	Observations	Mean	Std. Dev.	min	max	skewedness	Kurtosis
Tax Revenue	1 6	329300.1	200551 .2	91661	708427	.5456068	1 .964897
HDD	1 6	5.405	.401 6798	4.68	5.9	-.3838459	1 .889071
INFD	1 6	I 5.24437	6.764746	7.85	25.3	.4001 15	1 .501 697
ER	16	84.225	11 .80675	67.3	I 03.4	.3452256	I .889897

Source: Author's Computation based on STATA 2019

From table 4.1 above, it is clear that there is high spread of data among variables. From its nature, it was anticipated since time series data follows a random or stochastic process. The tax revenue performance had an average value of 9300.1, least value of 91661 , maximum value of708427, standard deviation of 200551.2, and skw**ness** value of .5456068 and Kurtosis value of 1.964897. Infrastructure Development Index had a mean value of 15.24437, least value of 7.85, maximum value of 25.3, standard deviation of6.764746, skewness value of.400 115 and Kurtosis value of I .501 697 .From table 4.1, data for tax revenue was widely spread than other variables 20051.2 million USD. This is mainly because of the fluctuations in the tax revenue collection over the period of study. A lot of factors played in contributing to the low revenue collection year's back such as low foreign direct invest high rates of unemployment, political instability. lt also had a large mean which is an indication of the fact that economy revolve around tax collection.

Table 4.2Regression analysis Results

Dltxr	Coefficients	Std. Err.	Z	R>lzl	[95% Conf. Interval]
LHDI	.7768609	.0588646	7.66	0.000	.3224775 .5789872
LINFD	.6089879	.013378 I	2.9 I	0.000	.0098397 .0681362
LLER	-.303678	.0939479	-2.17	0.007	-.15086 I .2585289
Cons	I .583694	.1 693715	9.35	0.000	I .214665 I .952723
Number of obs = 1 6		Prob> F= 0.0000		Adj R-squared= 0.7612	Root MSE = 0.00466
F(7) = 631.72		R-squared = 0.7697			

Source: Author's Cornputation based on STATA 2019

From table 4.2, the results reveal that the model was good in terms of goodness of fit and overall significance with a (R') of 0.7697 and a probability value of 0.0000. These means that 76.97% of the variation in tax revenue is explained by the explanatory variables in the model while the other proportion 23.03% is explained by other factors not considered by this study. Probability value of (0.0000) implies that the variables in the model are jointly significant in explaining tax revenue at 5% level of significance. The following regression equation was obtained;

$LLTXR = .0319441 + .776860LHDI_t + .6089879L1NF_t - .303678LLER_t + e_t$.. …….. …….. …..…..……..

Where LLTXR = second natural log of tax revenue LHDI = natural log of foreign direct investment.

UN F = natural log of 1nfrastructural development. LLER = second natural log of exchange rate.
e = the error term.
t= time series data

➢ *Interpretation of results*

The coefficient of infrastructural development index in the model above was found to have a positive impact on tax revenue performance at 5% level of significance. The coefficient of infrastructural development index in the model showed that a unit increase in infrastructural development would increase tax revenue by 0.6089879

units. The null hypothesis was therefore rejected and alternative accepted that there is a statistically significant positive relationship between Infrastructural development and tax revenue performance in Kenya. This study concluded that infrastructural development can contribute to up to 60.% improvement the performance of tax revenue in Kenya .For instance the construction of Ksh.32 billion Thika Superhighway from 2009q I to 20l2q4 resulted to transformation of Thika town into a highly industrious and urbanized center due to accessibility (Magu,20 I 3).Population has consequently rose in this town attracting more investors in residential, commercial housing units and industries attracting more excise duty ,Value Added Tax (VAT) and property tax income to the government hence improving the rate of tax revenue performance in Kenya (Arnondi,20 I 6).According KRA annual reports (2018) ,the tax avenue income has been growing from 2010-20 I 8.For instance for the period 2014-2018 the average value of tax revenue as a percentage of GDP was (16.01%) with the highest percentage of I 6.88% in 2014 and lowest I 5.09% in 2018 .These growth in tax revenues in Kenya has majorly been attributed to the expansion of the economy brought about by improved infrastructural connectivity (Barnes,20l5).This has fastened trade through smooth flows of commodities to the places that were previously difficult to be reached (Barnes,2015).

Similarly completion of phase I of the Standard Gauge Railway (SGR) flagship project in 2017 that costed US$3.6 billion has resulted to increased number of foreign investments inflows in residential, shopping malls, recreational facilities and industries leading to an increase in rental income and capital gain taxes. Other major infrastructural development that has been attributed to the improvement in tax revenue income include the Mombasa Port Modernization (20l5)Lamu Port-South Sudan-Ethiopia-Transport(LAPSSET) project (March 2012), rehabilitation of airports and airstrips (2015) tremendously influenced the rates of growth in corporation ,VAT and property taxes (KRA,20 I 8).Similarly many young people have been employed resulting to growth and expansion of income tax revenue to the government (ECA,2017).These results are similar to the findings of Masika (2015) and Muindi (2017) who established that infrastructural development positively and moderately affected to rates of tax revenue performance. Similarly Daviron & Ponte(2005) and (Hoekman & Nicita, 2018) in South East Asia found out that infrastructural development positively influenced the growth of tax revenue .However in contrast (Tong ,2014) in USA established that infrastructural development had short term impacts on the growth of tax revenue.

V. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

➢ *Summary of findings*

The general purpose of the study was to determine the relationship between Infrastructural Development Index (lNFDI) and the rates tax revenue performance in Kenya. The study adopted an analytical research design and a stochastic model. Descriptive statistics were computed to check for any outliers and describe general characteristics of the sample. The results indicated that infrastructural development (INFD) was a significant positive determinant of the rates of tax revenue performance in Kenya. INFD summary statistics reported a mean of 15.24437 ,a standard deviation of 6.764746.The INF had p-value 0.0000 and a coefficient of 0.6089879.This rejects the null hypothesis implying that lNFD has a significant positive and a significant effect on tax revenue performance in Kenya . This study results is consistent with the results Kimani and Njoroge (2015) and Kosgei,(2017),who examined the impact of INFD on rates of tax revenue performance in Ken ya. Their results showed that INFD had a positive impact on tax revenue performance in Kenya . However in Contrast,Wamboye and Simiyu (2017) found that infrastructural development had insignificant effect on rates of tax revenue performance in Kenya.

➢ *Conclusions*

From the results and findings , there is a link between Infrastructural Development Index (lNFD) and tax revenue performance .This findings indicates that infrastructural Development Index (HDI) is statistically significant with a positive relationship with tax revenue performance,. Therefore the null hypothesis that states that INFD have no statistical significance to tax revenue performance was rejected .In conclusion for the Kenya government to achieve both the big 4 agendas and the vision 2030 major funding from revenue collection is essential so as to reduce borrowing of development funds that results to increase in country's debt burden. However in order to increase tax revenue performance ,the economy has to be widened up through infrastructural development .Development of modern infrastructure facilities such as airports, berths and social amenities facilities attracts investors hence leading to industrial g r o w t h .This would result to more job creation hence increasing both corporate and income tax revenues

➢ *Recommendations*

The study findings established a statistically significant positive relationship bet n the infrastructural development and rates of tax revenue performance in Kenya. Therefore based on the established findings ,the study recommends that ;The government of Kenya should encourage foreign direct investment inflows in infrastructural sector by reviewing the policies surrounding development and management of construction and infrastructure sector like the FDI accessibility thresholds policies and regional free trade agreement in infrastructural investment so as to attract more foreign investors in infrastructural and real estate sector which have direct positive effects on rates of tax revenue performance .Secondly, government of Kenya should continue to put in place incentives such as tax free holidays, providing free lands for potential investors and reducing industrial tax so as to attract more foreign investors and investment partners in the infrastructural development projects so as to expand the economy base through creation of roads, railways and airports which will ease trade in the country and thus contribute positively to the growth in the country's tax base . Similarly, the government should partner with local

investors and other private parties like the NGO'S in order to reduce the reliance on external loans in financing major infrastructural projects in the country.

REFERENCES

[1]. Ebrill, Stotsky and Gropp, (1999): "Revenue Implications of Trade Liberalization." Economic Journal, 104. March, pp. 247-26 I
[2]. Fedderke, J.W., Perkins, P. and Luiz, J.M. (2006) "Infrastructural Investment in Long-run Economic Growth: South Africa I 575.2001".World Development 34(6), 2006, PP, 1037.1059
[3]. Francois, J., & M anchin, M. (2017). *Institution.* , in/r‹ztii o‹ Curr, wd ri odr: The World Bank. Gaalya, M. S. (2015). Trade liberalization and tax revenue performance in Uganda. Modern Economy
[4]. Gacanja, E. W. (201 2). Tax revenue and economic growth: an empirical case study of Kenya.
[5]. Unpublished MBA Project, Univ'ersity of Nairobi
[6]. Gujarati, D. N., & Porter, D. (2009) . Basic Econometrics Mc Graw-Hill International Edition.
[7]. Hr›ekrnan, B., &N icita, A. (2018). Non-tariff measures and trade facilitation: WTO disciplines and policy space for development. *N‹›n -Tut i f Measures*, 13.
[8]. Muriithi. Kand&Moyi. (2003). Tax policy and Revenue Mobilization in Kenya,
[9]. Musgrav'e, R. A., & Musgrax'e, P. B. (2004). Public Finance in Theory and Practice. (4th ed).
[10]. McGraw Hill Higher Education, New York.
[11]. Nachtsheiin, C. J., Kutner, M . H., Neter, J., & Wasserinan, W. (2014). *Apylirñ Linr‹ir Stotisti‹of Model* Richard D. Irwin, Chicago lL.
[12]. Nordas, H., &Piermartini, R. (2014). *In[r‹zstt u‹ tut e and Tt ‹ulr. WT t E‹ onomi‹ Reseur‹ h and*
[13]. .Srnri.trim.t *Di i.ti‹›n* .\'rnJ. Working paper ERSD-2004-04
[14]. Tanzi, V. &Davoodi, H. (1997). Corruption, Public Investment and Growth". Working Paper 97/137/139, International Monetary Fund, Washington D. C
[15]. Todaro, Michael P. (198 I) "Economic Development in the Third World" published by the Longman (New York & London), 198 I (2nd edition) pp.87
[16]. Tyler.D.W.(2008) "Manufactured Exports and Capital development: Some Empirical Evidence." Journal of Economic Development, I une 2008
[17]. Unpublished MBA Project, University of Nairobi.
[18]. Woodhall, M. (20 10). Human capital: educational aspects, 1nternational Encyclopedia of the Social & Behavioral Sciences.
[19]. World Bank. 20 l7. World Development lndicat «l database . Washington, DC.