

Relationship between Macroeconomic Factors and Economic Growth in Kenya

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Abstract: *Economic growth in Kenya has been unstable for quite a while, but it generally decreased gradually but significantly from 1971 to 2018. As a result of unstable and at times declining economic growth, Kenya is facing a challenge in winning its fight against unemployment, poverty, and poor investments. Therefore, it is essential to establish the determinants of economic growth in Kenya so as to guide policy formulation to improve the national economy. The general study objective was to evaluate the relationship between macroeconomic factors and economic growth in Kenya. The research used an explanatory research design. The research was done in Kenya and sampling was carried out as the year progresses. The research utilized time series data from the year 1971 to 2018. Both descriptive statistics and inferential statistics were used in analysis of quantitative data with the assistance of Stata version 16. The findings showed that public debt, inflation and foreign exchange rate have an inverse effect on the growth of economy in Kenya. In addition, foreign direct investment has insignificant effect on the growth of economy in Kenya. The study recommends that the policy makers need to ensure that both the level and rate of growth of external public debt is sustainable. In addition, the government of Kenya should improve conditions that can make the Kenyan market more attractive to invest in and hence increase foreign direct investment. Further, the government should develop tight fiscal policy to reduce inflation.*

Key Words: *Debt, Inflation, Foreign Direct Investment, economic growth*

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I. Introduction

Economic growth is essential to alleviating poverty and increasing prosperity (UNCTAD, 2019). According to Marende (2017) the question of economic growth has been termed as the turnaround for human advancements. Even in our dynamic globalized planet, the question of economic growth has dominated the media houses hence being a frequent debate topic. This quest has remained to be the center of human concern. Countries registering extremely high rates of economic growth have been referred to as “growth miracles”

In several developed nations there has been increased rate of economic growth which has been very close to their potentials, as a result, the rate of employment in these countries has increased greatly. Both east and South Asia parts are among the most developed countries with their economies developing at a faster rate. These areas are surrounded by strong local demand conditions. However, despite the huge worldwide economic figures registered by the countries, the economic growth in these areas is highly unbalanced (Bellepea, 2009).

Global, regional and local growth of the economy depends largely on Macro-economic factors. Sharmer and Sigh (2011) revealed that macro-economic factors (government borrowing, rate of inflation, FDI as well as rate of exchange) have a great influence on growth of the economy of developing nations together with that of the developed countries. Omare (2015) argue that the level of growth is significantly determined by macroeconomics factors such as inflation, public debt, exchange rates, public expenditure and unemployment rate.

1.1 Statement of the Problem

Economic growth is associated with rise in real GDP; which is caused by increase in domestic income together with national output and gross expenditure. Economic growth improves the living standards of citizens through creation of employment and increase in investments. As a result, economic growth is often seen as the 'holy grail' of macro-variables (King'ola, 2018). Sharmer and Sigh (2011) indicate that macroeconomic factors (e.g. foreign direct investment, public debt, inflation rate and exchange rate) play a vital role in the economic performance of any country.

Despite the implementation of many economic policies, over the years, to stabilize the Kenyan economy, very little has been achieved. For instance, before the big rise of economic growth in 2010, the

Kenyan economy had slowed to its lowest pace in 2008 recording a one percent annual GDP growth. In 2013, 2014 and 2015 the economic growth recorded some fluctuations as shown by a GDP growth of 5.90 percent, 5.40 percent and 5.70 percent respectively. Between the year 2015 and 2016 economic growth decreased from 5.70 to 4.90. As a result of this unstable growth, Kenya's attractiveness to FDI continued to grow negatively as its East African neighbors increased their appeal to foreign capital.

In the year 2008, FDI decreased to 95.594 USD million from 728.895 USD million in 2007. According to UNCTAD, Kenya was among the three nations that attracted the least FDI inflows in 2016 as compared to the past years. The report indicates that the rate of FDI inflows to Kenya decreased by 36% to Ksh 40.7 billion in spite of the general increase in east Africa inflows by 13%. This was the worst performance recorded in investment inflow that was more than twice the 15 % decline recorded by Tanzania as well as the 20 % drop in into the Seychelles (UNCTAD, 2019). Over the years, foreign exchange rate in Kenya has been increasing reaching a figure of 104 shillings against the dollar in 2017. In addition, foreign exchange rate increased from 98.69 to 101.51 between the year 2015 and 2016 (UNCTAD, 2019)

In the year 2008, inflation rate increased to 15.101 percent. Further, inflation in Kenya has been fluctuating over the years. In the year 2013, it was at 5.7%, increased to 6.9% in 2014, decreased to 6.6% in 2015 and 6.3% in 2016. In the year 2017, inflation increased to 8%. Kenya's public and publicly guaranteed debt increased from Ksh 805,686 million or 43.8 percent of GDP in June 2007 to Ksh 870,579 million in June 2008 (central bank of Kenya, 2018). Kenya has an approximate public debt of USD \$49 billion in 2018, which is equivalent to 56.4% of the country's GDP; this indicates an increase of 13.6% from 2008. In 2011, the annual GDP was 6.10 percent with public debt rising to Ksh 1,487,110 million. This growth rate reduced to 4.6 percent in 2012. It was therefore important to understand the relationship between macroeconomic variables and economic growth in Kenya so as to guide the development of monetary and fiscal policies.

Studies conducted in Kenya on macroeconomic factors have focused on the private sector and have shown mixed findings. For instance, Omare (2015) examined the influence of macro-economic factors on profitability of real estate industry in Kenya and revealed that inflation and public debt positively influenced real estate industry profitability while exchange rate had a negative insignificant effect on performance. Marende (2017) investigated one economic variable and financial development of commercial banks in Kenya and found that public debt and inflation influenced financial development positively while exchange rate had a negative effect. However, Juma (2014) researched on the influence of macro-economic factors on performance of the real estate investment in Kenya and established exchange rate, inflation rate, and public debt do not significantly influence profitability of real estate investment. These studies did not show how macroeconomic factors affect economic growth in Kenya. This research therefore sought to evaluate the relationship between macroeconomic factors and economic growth in Kenya.

1.2 Objectives of the Study

The specific objectives of the study were;

- i. To determine the relationship between public debt and economic growth in Kenya
- ii. To determine the relationship between inflation rate and economic growth in Kenya
- iii. To determine the relationship between exchange rate and economic growth in Kenya
- iv. To determine the relationship between FDI and economic growth in Kenya

II. Literature Review

2.1 Theoretical Review

John Maynard Keynes developed the Keynesian Economic Theory in the 1930s. Keynes holds that the total economic expenditure strongly influences the economic output in the short run and most especially during the recession periods. According to the theory, the total demand does not necessarily add up to the economy's productive capacity. However, it is affected a variety of variables and in some cases it is unpredictable, influencing inflation, the rate of production and the rate of employment (Adhikari, 2014). The theory holds that inefficiency in the macroeconomic factors is highly influenced by the decisions made by the private sector. As a result, this calls for quick policy response from the public sector. With an aim of ensuring stability in the business cycle the central bank is expected to carry out monetary policy measures, on the other hand, the government is also expected to perform fiscal policy actions. This theory was adopted to describe the influence of inflation on GDP growth. As indicated by the theory, decrease in demand leads to inefficient macroeconomic results in the economy. On the other hand, inflation is experienced when demand is high. However, the inflation rate can be lessened through application of economic policy specifically through the use of the monetary policy by the central bank in addition to use of the fiscal policy by the government. This helps in ensuring stability in production over the business cycle. Other monetary and economic policies include policies on foreign exchange rate and inflation.

2.2 Empirical Review

This section presents literature review on the relationship between (FDI, exchange rate, public debt and rate of inflation) and economic growth in Kenya.

Gudaro, Chhapra and Sheikh (2010) researched on the influence of FDI on the Pakistan's economic growth and revealed that FDI influenced GDP in a positive and significant way. In addition, Rahman (2015) researched on FDI and GDP growth in Bangladesh and the results revealed that FDI is negatively correlated with the economic growth in Bangladesh. Further, Antwi and Zhao (2013) researched on FDI and GDP growth in Ghana and covered a period of 30 years from 1980. The results showed a long run relationship between FDI and economic growth. Granger Causality test confirmed that GDP and FDI have causal relationship. Awe (2013) centered his study on FDI and Nigerian's economic growth. The research utilized secondary data collected for a period of 30 years from 1976. The research showed that FDI negatively influences GDP growth. Furthermore, the results showed that due to inadequate FDI inflow in the Nigerian economy, GDP was negatively affected. Maingi (2014) investigated on the influence of FDI on the Kenya's economic growth and covered a period of 9 years from 2004. The research revealed that FDI influenced economic growth in a positive and significant way. This indicated that FDI was directly proportional in that increase in FDI increased economic growth.

Hua (2011) researched on the economic and social effect of exchange rate in China. An econometric model is estimated by using secondary data from China covering a period of 21 years from 1987. The results showed that appreciation in exchange rate negatively influenced GDP growth in China. Similarly, Umaru, Niyi and Davies (2018) investigated on exchange rate and GDP growth of West African countries and found that GDP growth of targeted nations was affected negatively by real exchange rate. To the contrary, Mwinlaaru and Ofari (2017) researched on the influence of exchange rate on Ghana's economic growth and revealed that GDP growth is positively and significantly influenced by real rate of exchange. In Kenya, Wandeda (2014) researched on the influence of exchange rate on GDP growth and the results indicated that exchange rate positively affect GDP growth rate for Kenya. However, the result further indicates that exchange rate volatility is insignificant in contributing to GDP growth rate.

Ntshakala (2014) researched on public debt and GDP growth in Swaziland covering a period of 15 years from 1988. The research showed that the GDP growth in Swaziland is affected by external debt in a positive and significant way. In addition, Khan *et al.* (2015) explored the influence of public debt on the Pakistan's GDP growth and the results showed that public debt positively influence economic growth. However, Dar and Amirkhalkhali (2014) researched on the influence of public debt on GDP growth in the developed countries. The study targeted on a group of 23 industrialized countries and found that the public debt had a negative but insignificant influence on GDP. In Kenya, Kobey (2016) investigated on the association between public debt and GDP growth rate and established that public debt had a negative and significant influence on GDP growth. This means that more the government borrows the more the decline in economic growth.

Nasir and Saima (2010) investigated on inflation and GDP growth in Pakistan. Descriptive survey design was used and the results revealed that inflation had a negative and significant influence on GDP growth. In addition, Adhikari (2014) researched on the influence of inflation on GDP growth in Nepal and using descriptive survey design found that GDP growth was negatively influenced by inflation rate. Kasidi and Mwakanemela (2014) investigated on inflation and GDP growth in Tanzania using a descriptive survey design was used. The results indicated that inflation had no significant influence on GDP growth rate. To the contrary, Bellepea (2015) investigated on the influence of inflation and GDP growth in Liberia and long-run and short-run results indicated that growth rate of GDP was positively influenced by inflation rate.

2.3 Conceptual Framework

The research aimed at determining the relationship between macroeconomic factors and economic growth in Kenya. The independent variables comprised of public debt, inflation rate, exchange rate and FDI. The dependent variable for the research was economic growth in Kenya.

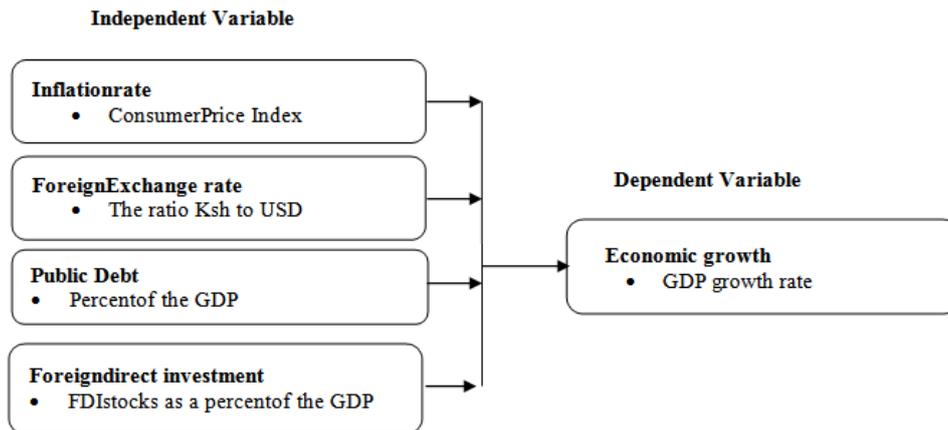


Figure 1: Conceptual framework

III. Research Methodology

This research used explanatory research design and targeted the period between 1971 and 2018. Secondary time-series data on public debt, FDI, inflation rate, foreign exchange rate and economic growth was obtained from KNBS, the World Bank and the Central Bank of Kenya (CBK). The secondary data was gathered through a data extraction checklist. The quantitative data was coded into Stata version 16, (statistical software) for analysis. Analysis of the quantitative data was based on both descriptive statistics and inferential statistics. Multiple regression model was used in the present research to model the linear association between explanatory dependent (economic growth) and independent variables (FDI, inflation, foreign rate of exchange and public debt). The regression model was as follows;

$$GDP_t = \beta_0 + \beta_1 PB_t + \beta_2 FDI_t + \beta_3 In_t + \beta_4 EX_t + \varepsilon_t$$

GDP_t is the dependent variable (Gross Domestic Product), β_0 is the y-intercept (Constant), β_1 - β_4 are coefficients of determination, PB_t is the Public Debt, FDI_t is the Foreign Direct Investment, In_t is Inflation, and EX_t is Foreign Exchange Rate, t represents time and ε_t is an error term.

IV. Research Findings and Discussion

4.1 Descriptive Statistics

The results, as shown in Table 1, indicated that the average Gross Domestic Product for the period between 1971 and 2018 was 4.771996% and the (std. dv=3.967558%). The minimum GDP growth was -0.799494 and the maximum was 22.17389. In addition, the average foreign exchange rate for the period between 1971 and 2018 was 47.64534 and a std. dv = 34.04841. The minimum foreign exchange rate during the study period was 7.001 and the maximum foreign exchange rate was 103.374.

Further, the results indicated that the average foreign direct investments measured in terms of net inflows as a percent of the GDP for the period between 1971 and 2018 was 0.7491347% and the (std. dv =0.7476061%). The minimum foreign direct investment measured in terms of net inflows was 0.0047207 per cent and the maximum was 3.457345. The findings also indicated that the average CPI or the period between 1971 and 2018 was 11.95222 and the (std. dv = 8.034469). The minimum inflation during the study period was 1.554328 and the maximum was 45.97888. Also, the average public debt, measured in terms of a percent of GDP for the period between 1971 and 2018 was 45.53838 and the (std. dv = 22.954). The minimum public debt was 8.29 and the maximum public debt was 104.99.

Table 1: Mean Estimation.

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	48	4.771996	3.967558	-.799494	22.17389
PB	48	45.53838	22.954	8.39	104.99
CPI	48	11.95222	8.034469	1.554328	45.97888
FDI	48	.7491347	.7476061	.0047207	3.457345
FX	48	47.64534	34.04841	7.001	103.374

Correlation Analysis

From the findings as shown in Table 2, there is an inverse and significant relationship between public debt and economic growth (GDP) in Kenya ($r = -0.382$, $p\text{-value} = 0.007$). These results are in line with Ntshakala (2014) results that economic growth in Swaziland is significantly influenced by external debt. Further, the findings indicated that inflation rate had an inverse and significant relationship with economic growth (GDP) in Kenya ($r = -0.408$, $p\text{-value} = 0.004$). These results agree to Adhikari (2014) results that inflation rate influences economic growth negatively in Nepal. In addition, the results show that FDI insignificantly relates to (GDP) in Kenya ($r = 0.060$, $p\text{-value} = 0.685$). These results concur with Gudaro, Chhapra and Sheikh (2010) results that FDI influenced economic growth in a positive and significant in Pakistan. In addition, foreign exchange rate is inversely related with economic growth (GDP) in Kenya ($r = -0.400$, $p\text{-value} = 0.005$). These results concur with Hua (2011) findings that appreciation in exchange rate negatively influenced economic growth in China.

Table 2: Correlations Coefficient

		Economic Growth	Public Debt	Inflation	FDI	Foreign exchange rate
Economic Growth	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	48				
Public Debt	Pearson Correlation	-.382**	1			
	Sig. (2-tailed)	.007				
	N	48	48			
Inflation	Pearson Correlation	-.408**	.227	1		
	Sig. (2-tailed)	.004	.120			
	N	48	48	48		
FDI	Pearson Correlation	.060	.237	.130	1	
	Sig. (2-tailed)	.685	.104	.377		
	N	48	48	48	48	
Foreign exchange rate	Pearson Correlation	-.400**	-.256	-.206	.237	1
	Sig. (2-tailed)	.005	.079	.160	.104	
	N	48	48	48	48	48

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

Multiple Regression

The r-squared for the relationship of the four independent variables (public debt, FDI, foreign exchange rate and inflation) and the dependent variable (GDP growth in Kenya) was 0.3871. This indicates that the four independent variables (public debt, FDI, inflation and foreign exchange rate) can help in explaining 38.71% of the economic growth in Kenya. Moreover, the p-value for the F-statistic was 0.000, the model can be used in predicting the influence of debt, FDI, inflation and foreign exchange rate on economic growth in Kenya. The results show that foreign exchange rate has an inverse and significant influence on GDP growth in Kenya as indicated by a regression coefficient of -0.0432988 ($p\text{-value} = 0.006$). The results contradict the argument of King'ola (2018) that economic growth is strongly correlated with exchange rate and GDP increases proportionally to increase in exchange rate.

The results show that FDI has a positive, insignificant impact on economic growth in Kenya as indicated by a regression coefficient of 0.2912329 ($p\text{-value} = 0.688$). The results concur with Wanjiru (2014) results that there was no impact of FDI on economic growth. The results reveal that inflation (CPI) has an inverse and significant influence on GDP growth in Kenya as indicated by a regression coefficient of -0.1997845 ($p\text{-value} = 0.003$). The results contradict those of Wanjiru (2014) that though inflation had a positive impact on FDI, it was not significant.

The results show that public debt has an inverse and significant influence on economic growth in Kenya as shown by a regression coefficient of -0.066063 ($p\text{-value} = 0.008$). The findings are in agreement with Mwaniki (2016) argument that external government borrowing was found to influence economic performance in a negative way and the more the government spending the poorer the performance of the economy.

Table 3: Multivariate Regression coefficients

Source	SS	df	MS			
Model	286.37306	4	71.5932649	Number of obs = 48		
Residual	453.478316	43	10.5460074	F(4, 43) = 6.79		
				Prob > F = 0.0003		
				R-squared = 0.3871		
				Adj R-squared = 0.3301		
Total	739.851376	47	15.7415186	Root MSE = 3.2475		

GDP_Growth	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
PB	-.066063	.0235958	-2.80	0.008	-.1136484	-.0184777
CPI	-.1997845	.0637218	-3.14	0.003	-.3282918	-.0712773
FDI	.2912329	.7215531	0.40	0.688	-1.163918	1.746383
FX	-.0432988	.014881	-2.91	0.006	-.0733093	-.0132883
_cons	12.01308	1.667731	7.20	0.000	8.649782	15.37638

V. Conclusion

This study concludes that public debt has an inverse significant effect on the GDP growth in Kenya. This implies that increasing public debt subsequently leads to a decrease in GDP growth. However, public debt below 77 per cent for use in infrastructure development can lead to an increase in growth of economy. When a particular state borrows funds to invest in capital projects, it often results to decline in the growth of economy in the long run. The study also concludes that FDI has insignificant effect on the growth of economy in Kenya. This implies that an increase or decrease in foreign direct investment will not considerably or significantly affect the economic growth.

The research further concludes that there is an inverse and significant relationship between inflation and growth of economy in Kenya. This shows that an increase in consumer price index in Kenya leads to a decrease in growth of economy. The rate of economic growth declines due to reduction in formation of capital and creating economic uncertainties when inflation rate is high. Moreover, inflation distorts economic decisions pertaining to investment and savings. In addition, the study concludes foreign exchange rate have an inverse effect on the growth of economy in Kenya. This implies that increasing foreign exchange rate leads to a decrease in economic growth in Kenya.

References

- [1]. Adhikari, J., (2014). Whether inflation hampers economic growth in Nepal. *Journal of Economics and Finance*, 5(6), 52-56.
- [2]. Anidiobu, G. A., Okolie, P. I. P., & Oleka, D. C. (2018). Analysis of inflation and its effect on economic growth in Nigeria. *Journal of Economics and Finance*, 9(1), 28-36.
- [3]. Antwi, S., & Zhao, X. (2013). Impact of macroeconomic factors on economic growth in Ghana: A co-integration analysis. *International journal of academic research in accounting, finance and management sciences*, 3(1), 35-45.
- [4]. Awe, A. A. (2013). The impact of foreign direct investment on economic growth In Nigeria. *Journal of economics and sustainable development*, 4(2), 122-131.
- [5]. Bellepea, G. W. (2009). *Inflation and economic growth: evidence from Liberia*. Retrieved from <http://erepository.uonbi.ac.ke/>
- [6]. Dunning, J.H. (1988). Location and the Multinational Enterprise. *Journal of International Business Studies*, 40(1), 20-34.
- [7]. Dar, A. A., & Amirkhalkhali, S. (2014). On the impact of public debt on economic growth. *Applied Econometrics and International Development*, 14(1), 2-12.
- [8]. Festus, G. E., & Saibu, M. O. (2019). *Effect of external debt on Nigerian economy: Further evidences. Munich Personal RePEc Archive*. Retrieved from; https://mpra.ub.uni-muenchen.de/92704/1/MPRA_paper_92704.pdf.
- [9]. Gudar, A. M., Chhapra, I. U. & Sheikh, S. A. (2010). Impact of foreign direct investment on economic Growth: A case study of Pakistan. *Journal of management and social sciences*, 6(2), 84-92.
- [10]. Guellil, Z., Marouf, F. Z., & Benbouziane, M. (2017). Exchange rate regimes and economic growth in developing countries: an empirical study using panel data from 1980 to 2013. *Management international conference*, 379-391.
- [11]. Hua, P. (2011). *The economic and social effects of real exchange rate — Evidence from the Chinese provinces*. Retrieved from; <https://www.oecd.org/dev/pgd/46838088.pdf>
- [12]. Juma, M. L., (2014). *The effect of macro-economic variables on growth in real estate investment in Kenya*. Retrieved from; <https://pdfs.semanticscholar.org>
- [13]. Kasidi, F., & Mwaknemela, K. (2014). Impact of inflation on economic growth: a case study of Tanzania. *Asian Journal of Empirical Research*, 3(4), 363-380.
- [14]. Kingola, E. N. (2018). Influence of Exchange Rate on Economic Growth in Kenya. *IOSR Journal of Economics and Finance*, (2018), 9(6), 34-38.
- [15]. Kobey, G. L. (2016). *Effect of public debt on economic growth in Kenya*. Retrieved from <https://pdfs.semanticscholar.org>

- [16]. Leitão, N. C., & Rasekhi, S. (2013). The impact of foreign direct investment on economic growth: the Portuguese experience. *Theoretical and applied economics* 20(1), 51-62.
- [17]. Maingi, K. M. (2014). *The effect of foreign direct investments on economic growth in Kenya*. Retrieved from <https://chss.uonbi.ac.ke/sites/default/files/chss/>.
- [18]. Marende, A. Z. (2017). *The Effect of Macroeconomic Factors on Financial Development of Commercial Banks in Kenya*. Retrieved from <http://erepo.usiu.ac.ke>
- [19]. Musyoka, G., (2016). *The effect of public debt on economic growth in Kenya*. Retrieved from <https://pdfs.semanticscholar.org/>
- [20]. Mwaniki, G. W. (2016). Effect of public debt on the gross domestic product in Kenya. *IOSR Journal of Economics and Finance (IOSR-JEF)*, 7(6), 59-72.
- [21]. Mwinlaaru, P. Y., & Ofari, I. K. (2017). *Real exchange rate and economic growth in Ghana*. Retrieved from <https://mpr.ub.uni-muenchen.de>
- [22]. Nasir, I., & Saima, S. (2010). *Investment, inflation and economic growth nexus, Munich Personal*. Retrieved from <https://mpr.ub.uni-muenchen.de>
- [23]. Ntshakala, P. L. (2014). Effects of public debt on economic growth in Swaziland. *International Journal of Business and Commerce*, 5(1), 1-24.
- [24]. Nyanga, N. B. (2013). *The impact of foreign direct investment on economic growth in Kenya*. Retrieved from; <https://chss.uonbi.ac.ke/sites/>.
- [25]. Okunnu, M.A., Ekum, M.I. & Aderere, O.R. (2017). The Effects of Macroeconomic Indicators on Economic Growth of Nigeria (1970-2015). *American Journal of Theoretical and Applied Statistics*, 6(6), 225-334.
- [26]. Omare, D. B. (2015). *The effect of macro-economic variables on performance of real estate industry in Kenya*. Retrieved from <http://erepository.uonbi.ac.ke/>
- [27]. Oude, K. M. (2013). *The effect of exchange rate fluctuations on gross domestic product in Kenya*. Retrieved from; <https://chss.uonbi.ac.ke>.
- [28]. Rahman, A., (2015). Impact of Foreign Direct Investment on Economic Growth: Empirical Evidence from Bangladesh. *International Journal of Economics and Finance*, 7(2), 178-189.
- [29]. Russell, B.R. (2013). *Application of Quantitative, Qualitative and Social Research Techniques*. Los Angeles: SAGE Publications.
- [30]. Saifuddin, M. (2016). Public debt and economic growth: evidence from Bangladesh. *Global Journal of Management and Business Research: B Economics and Commerce*, 16(5), 64-73.
- [31]. Sharmer, G. P., & Singh, S. (2011). *Impact of Macroeconomic factors on Economic Performance: An Empirical Study of India and Sri Lanka*. Retrieved from; <https://www.researchgate.net/publication/2>.
- [32]. Thayaparan, A., (2014). Impact of inflation and economic growth on unemployment in Sri Lanka: A Study of Time Series Analysis. *Global journal of management and business research*, 13(5), 43-54.
- [33]. Umaru, H., Niyi, A. A. & Davies, N. O. (2018). The effects of exchange rate volatility on economic growth of West African English-Speaking Countries. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 8(4), 131-143.
- [34]. UNCTAD (2019). *Trends in International Trade Statistical Data*. Retrieved from <http://unctad.org/en/Pages/DITC/Trade-Analysis/TAB-Data-and-Statistics.aspx>
- [35]. Wandeda, O. N. (2014). *The impact of real exchange rate volatility on economic growth in Kenya*. Retrieved from; <http://erepository.uonbi.ac.ke/>
- [36]. Wanjiru, M. N. (2014). *Impact of foreign direct investment on economic growth in Kenya*. Retrieved from; <http://erepository.uonbi.ac.ke/>.

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