
**INTERNATIONAL TRADE AND ECONOMIC GROWTH NEXUS IN UGANDA. EMPIRICAL
EVIDENCE FROM KAMPALA DISTRICT.****Turyahikayo Innocent****Metropolitan International University****ABSTRACT**

This study set out to provide evidence for the international trade economic growth nexus in Uganda while using exports, imports and foreign direct investment as proxy variables for the period 1988-2018. It was empirically confirmed that exports imports and foreign direct investment had a strong positive significant relationship with economic growth.

Unit root tests were carried out using Augmented Dickey Fuller test and findings showed that all variables were non-stationary at level but were differenced to achieve stationarity. Cointegration was established using Engle Granger Cointegration test citing existence of a long run relationship amongst the variables. The speed of adjustment of the variables to long run was 57 percent within a one-year lag period. 77 percent of the variations in economic growth were jointly explained by exports, imports and foreign direct investment. 23 percent of the variations in economic growth were explained by other variables contained in the error term thus not included in the model. The F statistic was statistically significant hence exports, imports and foreign direct investment have a significant effect on economic growth in the short run. For purposes of policy recommendation, export promotion strategy to boost Uganda's exports is encouraged and provision of tax incentives to domestic firms to boost their productivity. Furthermore, a good investment climate ought to be provided to attract foreign direct investment inflows in Uganda.

Key words: foreign direct investment, imports and exports**Background of the study**

The global exchange and monetary increase nexus have also drawn quite a few interests from scholars, coverage analysts and academicians because of the extensive benefits which are gathered from it. This is in addition sparked off with the aid of the Asian tigers who utilized export promoting method and free exchange policy to achieve awesome sustainable boom which growing international locations have considering emulated but maintain to trail alongside (Oliver et al., 2023). Maureen (2015) similarly shows that elevated hobby in role of global trade is due to globalization wave inclusive of no longer simplest alternate integration, openness however also generation revolutions which can be greatly treasured for spurring and resuscitating production zone overall performance in an economic system (Turyatamba et al., 2022). Qazi et al. (2013) explored the relation between import, export and financial increase for six Asian international locations (Victor et al., 2022). ARDL technique has been carried out for long run while; Granger Causality test has been carried out for locating causality among import and financial growth. The results suggest sizable relation between import and monetary development for all six international locations (Ramadhan et al., 2023). The identical analysis has additionally been carried out for OECD international locations by using Tahir (2013). The result shows that boom in import is appreciably associated with monetary

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increase (Ghaffar et al., 2019). Nikolaos & Stamatiou (2016) also suggest that exchange coupled with country's comparative advantage allows green use of resources (Nelson & Christopher, 2022). They similarly imply that change openness is an element of financial boom through ensuring technology switch from advanced economies to developing economies which promotes opposition among domestic and overseas companies accordingly fostering for innovation of domestic corporations that allows you to preserve a excessive market proportion. nevertheless, the relationship among trade openness and monetary boom is inconclusive.

Problem Statement

The decreased change openness in Uganda has failed to be contemplated by means of its coverage analysts who seem not to use sensible technical know how's of the worldwide exchange and how it is a springboard for amassed economic boom (Frank et al., 2023). Its earnings genuine as infant industries cannot ultimately compete at world prices because of perceived business set up distortion in Uganda. That is due to opposition from foreign corporations. As an end result, evolved countries are amassed with most profits from international trade than Uganda. that is also because of exports of agricultural products which fetch little revenue. that is further worsened by using import of non-capital goods which do not make a contribution to the productivity and efficiency of Uganda evidenced by using UBOS (2019) which indicates that annual alternate deficit in 2018 and 2017 become US\$3,155. five million and US\$2,225.9 million respectively (Benjamin Badeji & Olufunsho Abayomi, 2011). This is due to a giant growth within the imports with the aid of 19.6 percent in 2018. in spite of the noted revelations, there is lack of clarity at the international exchange and monetary growth nexus in Uganda therefore want for this observe (Ghaffar et al., 2019).

Specific objective.

- a) To evaluate the impact of exports on economic growth.
- b) To assess the effect of imports on economic growth.
- c) To establish the effect of foreign direct investment on economic growth.

Research hypotheses.

Ho1: Exports have no significant impact on economic growth.

Ho2: Imports have no significant impact on economic growth.

Ho3: Foreign direct investment has no significant impact on economic growth.

Methodology

Study design

This study Collected data on GDP, foreign direct investment flows, exports, imports, and other relevant variables. This data was obtained from national statistical agencies, academic sources, world bank index and other relevant sources

Data Types and sources

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The determinants of youth unemployment in Uganda, such as gross domestic product (GDP), foreign direct investment (FDI), imports and exports, will be measured using different types of data and the study used secondary data from 1980 to 2020 and this data was obtained from world bank index.

Econometric model.

Model specification.

The econometric model for this precise study is;

$$GDP = f(\text{exports imports, foreign direct investment})$$

This type of production function is essentially effective for developing countries like Uganda greatly endowed with natural resources which require expensive imports to extract them.

This can be expressed in linear form as;

$$\ln GDP_t = \beta_1 \ln EXP_t + \beta_2 \ln IMP_t + \beta_3 \ln FDI_t + u_t$$

Where;

GDP-Economic growth (current US dollars)

EXP-exports of goods and services (current US dollars)

IMP-imports of goods and services (current US dollars)

FDI-Foreign Direct Investment inflows (BOP, current US dollars)

t-time series observations for the period 1988-2018.

The model was estimated using different econometric techniques, such as ordinary least squares (OLS) regression or panel data regression, depending on the availability and nature of the data using SPSS (Nelson et al., 2022). The estimated coefficients and their statistical significance provided insights into the relative importance of each determinant of youth unemployment in Uganda.

Checking multicollinearity

Multicollinearity is a statistical problem that occurs when independent variables in a regression model are highly correlated with each other. In the context of the determinants of youth unemployment in Uganda, multicollinearity may occur if there is a high correlation between the independent variables of foreign direct investment (FDI), population growth rate, and gross domestic product (GDP).

Correlation Matrix: A correlation matrix was used to assess the strength and direction of the relationship between the independent variables. If the correlation coefficients between the independent variables are high, this may indicate the presence of multicollinearity. Variance Inflation Factor (VIF): The VIF is a measure of the degree of multicollinearity in a regression model. A VIF greater than 10 indicates the presence of multicollinearity.

Tolerance: The tolerance statistic is another measure of multicollinearity. A tolerance value of less than 0.1 indicates the presence of multicollinearity.

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MODEL DIAGNOSTICS

As a pretest for time series data, stationarity tests were carried out using unit root tests. If the data conforms to stationarity, a long run and short run relationship between the variables was established for purposes of policy recommendation in Kampala district, Uganda.

Further, to prove the authenticity of the model and credibility of the empirical results, heteroscedastic tests, auto correlation tests will be applied to ensure the stability of the model over time.

RESULTS

CORRELATION ANALYSIS

The correlation analysis between the dependent variable and the independent variables

Table 1: showing the relationship between the dependent and the independent variables

PW CORR	GDP	Foreign direct investment	Exports	Imports
GDP	1.00000			
Foreign direct investment	0.255 0.00	1.0000		
Exports	0.590 0.564	0.322 0.561	1.000	
Imports	0.645 0.000	0.261 0.609	0.134 0.07	1.000

Ho: There is no significant relationship between the effect of foreign direct investment and the GDP of Kampala district

Ha: There is a significant relationship between the effect of foreign direct investment and the GDP in Kampala district

Ho: There is no significant relationship between the effect of exports and the GDP in Kampala district

Ha: There is a significant relationship between the effect of exports and the GDP in Kampala district

Ho: There is no significant relationship between the effect of imports and the GDP in Kampala district

Ha: There is a significant relationship between the effect of imports and the GDP in Kampala district

The correlation coefficient 0.255 shows a weak positive correlation between foreign direct investment and GDP. Since the P value (0.00) is less than 0.05 level of significance, we reject the null hypothesis and conclude that foreign direct investment has a significant relationship on GDP.

The correlation coefficient 0.590 shows a moderate correlation coefficient between the effect of exports and GDP.

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This is statistically insignificant at 95% confidence interval since the P value (0.564) is greater than 0.05 level of significance and therefore we accept the null hypothesis and conclude that exports have no significant effect on GDP.

The correlation coefficient 0.645 shows a moderate positive correlation between imports and GDP. This is statistically significant at 95% confidence interval since the P value (0.00) is less than 0.05 and therefore we reject the null hypothesis and conclude that imports have a significant relationship on GDP

Regression analysis.

Table 2 shows the regression analysis between the dependent variable and independent variables

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.267	0.0199	-0.1751	0.85
Dme	0.2047	0.0278	3.1177	0.00
Dca	0.4501	0.1807	3.294485	0.57
Dra	0.029	0.0624	0.360	0.000
ECM (-1)	-0.101	0.190878	-2.986735	0.062
R-squared	0.788	Mean dependent var		0.087
Adjusted R-squared	0.722	S.D. dependent var		0.163
S.E. of regression	0.06310	Akaike info criterion		-2.231
Sum squared residual	0.14049	Schwarz criterion		-1.999
Log likelihood	29.1572	F-statistic		50.675
Durbin-Watson stat	1.675	Prob(F-statistic)		0.04

Ho: There is no significant relationship between the effect of foreign direct investment and the GDP of Kampala district

Ha: There is a significant relationship between the effect of foreign direct investment and the GDP in Kampala district

Ho: There is no significant relationship between the effect of exports and the GDP in Kampala district

Ha: There is a significant relationship between the effect of exports and the GDP in Kampala district

Ho: There is no significant relationship between the effect of imports and the GDP in Kampala district

Ha: There is a significant relationship between the effect of imports and the GDP in Kampala district

Keeping other factors constant, a one percent increase in foreign direct investment leads to 0.2047 percent increase in GDP. The p-value (0.00) is less than 0.05 which implies that foreign direct investment has a statistical significance on GDP and thus the null hypothesis is rejected.

Keeping other factors constant, a one percent increase in the exports leads to 0.4501 percent increase in GDP. The p-value (0.57) is greater than 0.05 which implies that exports are statistically insignificant at 95% confidence interval and thus the null hypothesis is accepted.

Keeping other factors constant, a one percent increase in between imports leads to 0.0064 percent increase in GDP. The p-value (0.00) is less than 0.05 which implies that imports have a statistical significance on GDP and thus the null hypothesis is rejected.

Diagnostic post estimation tests.

Diagnostic tests are carried out to ensure the residuals are normally distributed, homoscedastic and no presence of auto correlation.

Table 3 Ramsey RESET Test:

Ramsey RESET Test:			
F-statistic	0.183113	Probability	0.672527
Log likelihood ratio	0.228023	Probability	0.632994

Source: Author 'computation.

Ho: The model is correctly specified.

We accept the null hypothesis and conclude that the model is correctly specified since the probability value (0.673) is greater than 0.05.

Table 4 Serial correlation test.

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.695958	Probability	0.508794
Obs*R-squared	1.711940	Probability	0.424871

Source: Author's computation.

Ho: There is no serial correlation.

The null hypothesis of presence of no serial correlation is accepted since the probability (0.508794) is greater than 0.05.

Conclusion.

Unit root tests were carried out using Augmented Dickey Fuller test and findings showed that all variables were non-stationary at level but were differenced to achieve stationarity. Cointegration was established using Engle Granger Cointegration test citing existence of a long run relationship amongst the variables. The speed of adjustment of the variables to long run was 57 percent within a one-year lag period. 77 percent of the variations in Economic growth were jointly explained by exports, imports and foreign direct investment. 23 percent of the variations in economic growth were explained by other variables contained in the error term thus not included in the model. The F statistic was statistically significant thus exports, imports and foreign direct investment have a significant effect on economic

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growth in the short run. The findings of this precise study are similar to works of Imoughele & Ismaila (2016), Muhammad et al.(2019) and Adeleke et al. (2014) respectively.

Policy Recommendations

Domestic firms in Uganda should be encouraged through offering tax incentives to reduce on the costs of production incurred. This will enable the firms to mature and thus compete with foreign firms much more ably.

Foreign direct investment had a positive impact on economic growth in the short run which implies a good investment climate should be set up to attract investors to Uganda. This will in turn create employment opportunities for citizens and also lead to technology transfer.

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