

The Impact of International Trade on Economic Growth in Vietnam 1990 - 2015

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Abstract

The study examines the impact of exports, imports, gross capital formation, and exchange rate on the economic growth of Vietnam. The empirical analysis is conducted by using time series data from 1990-2015. The study employed regression analysis as the method of analysis using cointegration and vector error correction techniques (VECM) to find the long-run relationship between growth rate of the gross domestic product, exports, imports, gross capital formation, and exchange rate. The estimated results show that there is a long-run equilibrium relationship among dependent variables and independent variables. The results also indicate that the import and gross capital formation has a positive and significant influence on the economy of Vietnam, the exchange rate has positive and insignificant on economic growth. Meanwhile, import has a negative impact on economic growth. It concludes that international trade can play a major role in boosting Vietnam's economic growth.

Keywords: Exports, imports, gross capital formation, exchange rate, and economic growth

1. Introduction

International trade is the exchange of goods and services between countries in the world, which is the aggregation of cross-border trade related activities (Adewuyi 2005; Kumar 2009). Traders participate in economic activities to maximize profits due to differences in the international business environment of nations (Adedeji 2006). These activities follow the principle of exchange of parity to bring benefits to the parties. For most countries, it is equivalent to a large proportion of GDP. Economic growth can be defined as the increase in GDP and per capita income. It is the effective use of resources to achieve optimization so that each country's economic growth is different according to specific conditions. Economic growth can be seen as a combination of three processes: capital accumulation, population growth, and labor force.

The nature of the relationships between international trade and economic growth has long been a controversial topic among economists in both theory and practice. In the neo-classical model of exogenous growth, changes in trade openness or trade policy change only affect the pattern of product specialization and do not lead to long-term economic growth. However, in the new growth theory, changes in trade policy can affect economic growth in the long run. In fact, no country can produce all goods and services with the highest efficiency due to differences in natural resources, human resources, financial capital, and technological level of each country. Therefore, countries need to export goods and services to generate revenues, thereby supporting the import of goods and services that cannot be produced or produced inefficiently in the country. Thus, international trade is seen as an important component of development, contributing significantly to economic growth in most countries of the world (Adewuyi 2005). International trade promotes the efficient allocation and use of resources, which can lead to higher growth and can be translated into greater aggregation, especially with economies involved in the spread of technology and the spread of knowledge (Grossman & Helpman 1991).

Empirical studies on the relationship between international trade and economic growth are numerous. Some cross-country regression analyses show the positive relationship between trade opening and economic growth (Ahmed *et al.* 2008, Barro 1991, Edwards 1998, Osei-Yeboah *et al.* 2012). Others showed a negative relationship between international trade and long-term growth (Irwin 2002; O'Rourke 2000). However, most empirical studies in some countries have encountered some problems such as poor data quality and inappropriate econometric techniques (Samman 2005; Srinivasan & Bhagwati 2001). Therefore, in-depth studies in each country are the best approaches to understanding the relationship between international trade and long-term growth.

This article estimates the effects of the ratio of exports, the ratio of imports in GDP to economic growth by using annual data from 1990 - 2015. Unlike previous empirical studies that estimate the impact of a direct link between trade openness and growth, this study examines the long-term effects of international trade on growth through the gross capital formation and exchange rate using ADF test, PP test, Johansen cointegration and VECM technique. The results show that exports, gross capital formation, and exchange rates have a positive impact on long-term growth. Meanwhile, imports have a negative impact on long-term growth in Vietnam.

The rest of the paper is structured as follows. The second part deals with previous studies on the link

between international trade and growth. The third part presents the methodology and data as well as the characteristics of the model. The fourth part examines the results and the experimental results. The final section summarizes the main conclusions.

2. Literature review

International trade has grown steadily over the past three decades. Between 1980 and 2011, world trade in goods rose more than seven percent annually, a fourfold increase in volume, with exports rising from 34 percent in 1980 to 47 percent in 2011 (WTO 2013). Trade activities are continually expanding, as evidenced by the fact that some trade and international trade agreements are established around the world. With the financial and technological challenges faced by many countries in the world, trade is seen as an essential element of economic growth and development.

International trade is said to be one of the catalysts for productivity and growth. However, its contribution depends on its weight in economic activity. International trade is an important topic of debate in policy research and discussions both in theory and practical. Most studies have shown that nations carrying out international trade activities tend to yield higher yields than those produced for the domestic market only. In international value chains, international trade promotes efficient resource allocation and can lead to higher growth that can be translated into greater factor aggregation (Sachs & Warner 1995; Dollar & Kraay 2004; Daumal & Ozyurt 2011; Rodriguez & Rodrik 2001; Greenway and Sapsford 1994; Yamin *et al.* 1995). Their studies suggest that for an economy where trade openness is increasing (quantified by trade volume) it will deliver higher growth rates than protected economies. International trade contributes to the technological revolution that promotes economic development (Grossman & Helpman 1991; Maureen 2015). There was no country developed without trade. International trade plays an important role in the restructuring of the economic and social attributes of countries around the world, especially least developing countries. Maureen has used data from 85 countries for the period 1991-2011. Analysis result shows that effects of trade differ by the level of development. Whereas the effect of trade particularly exporting has had a significant positive impact on economic growth in developed and developing countries, the impact is not significant for least developing countries. Freund & Bolaky (2008), using data from 126 countries, found that trade openness has a positive impact on incomes per capita, it leads to higher living standards in flexible economies, but not in rigid economies. Calderon *et al.* (2004) found that openness had positive effects on growth in countries with high incomes per capita, but there was not impact of openness on growth in countries with low incomes per capita.

According to Frankel & Romer (1999); Barro & Sala-i-Martin (1995) argue that opening up the economy allows domestic firms to explore new ways of using input factors with greater efficiency, lower costs, increased total productivity, accumulate human capital, and harness national technological capabilities. Winters *et al.* (2002) argue that trade liberalization is beneficial because it allows a country to trade in larger markets and thus the risk associated with trade in smaller markets will be significantly reduced. International trade helps countries access external shocks, based on their capacity. Countries will develop measures and policies to absorb or counteract such shocks. Jacob & Zelealem (2014) analysis the impact of trade openness on growth in Kenya over period 1961 - 2009. This study found that aggregate trade openness has positively affected the level of investment and the rate of economic growth. On the other hand, trade-policy induced openness to have negatively and significantly affected investment and the rate of economic growth in Kenya. Merale *et al.* (2015) use panel data of 10 SEE countries over the period 1996 to 2012. The system GMM is used to solve endogenous problems. The estimated results indicate that the positive effects of trade openness on economic growth are governed by per capita income and other explanatory variables. Moreover, trade openness is more profitable for countries with higher level of incomes per capita, a higher level of FDI and with higher fixed capital formation. Chang *et al.* (2009) emphasized that the positive relationship between growth and opening up could be significantly improved if additional policies were implemented. Rodrik & Rodriguez (2000) find that lower barriers to trade policy (less tariff and non-tariff barriers) will lead to economic growth. John & Aiyelabola (2012) uses the ECM model to analyze the impact of international trade on growth in Nigeria from 1980 to 2010. The results show that exports have a positive effect on economic growth, while imports have a negative impact on economic growth in Nigeria. Zahoor *et al.* (2012) examines the impact of total exports to GDP ratio, imports to GDP, terms of trade, trade openness, investment to GDP ratio, and inflation on the economic growth of Pakistan over period 1973-2010. By using Chow test and the OLS technique is used to detect the relationship between exogenous variables and endogenous variable. The estimated results show that explanatory variables have a positive and significant impact on the economy of Pakistan. He concludes that international trade may play an important role to enrich the economy of Pakistan. Mendoza (1997) examines the affiliation among openness, exports to GDP ratio and economic enlargement for five ASEAN nations, and detected cointegration between openness, exports to GDP ratio and economic expansion for all nations.

Economic development is one of the main goals of every country in the world, and economic growth is the foundation of economic development. Exports are considered as one of the most important contributing

factors to economic development. The debate on the relationship between export expansion and economic growth has attracted much attention in the field of development economic. More empirical research has been conducted to assess the role of exports in the economic growth of developing countries from various perspectives (Miochealy 1977). Previous studies have shown that exports are a growth engine. It increases foreign exchange earnings, improves the balance of payments, creates jobs and develops export-oriented industries and improves government revenue through taxes, fees, and tariffs. These benefits will bring better living conditions for people in the export economy as the foreign exchange will contribute to meeting their needs for some essential goods and services. However, to achieve these benefits, export policies and products must be adjusted to the conditions of the economy. Tingvall & Ljungwall (2012) use a multi-country meta-analysis and conclude that exports have contributed to the growth of the PRC economy more than in other countries. Saaed & Hussain (2015) investigated the impact of exports and imports on the economic growth of Kuwait over the period 1977-2012. The study used Granger Causality, Johansen co-integration and Pairwise Granger Causality was carried out. The result shows that economic growth Granger Cause Import. Export is found to Granger Cause import. These results also provide evidence that growth in Tunisia was propelled by growth-led import strategy as well as export-led import. Tovonjatovo & Dong (2015) analyzes the impact of exports on economic growth Madagascar, using data from 1983 to 2013. This paper uses cointegration analysis, unit roots, coupled with VAR and IRF analysis. The result shows a mostly positive and significance relationship between exports and growth. Hussain & Saaed (2014) examined the nexus of Exports, Imports and Economic Growth in Saudi Arabia, using annual data for the period 1990-2011. The result of the causation between Exports and economic growth and imports and economic growth was statistically insignificant.

3. Methodology and data

Some studies have been conducted on the relationship between international trade and economic growth in the case of Vietnam. Difference between this study and the previous ones is that other studies include data up to 2015, which makes this study more up-to-date than earlier ones. The data for this paper are annual figures that cover the period between 1990-2015 to examine the co-integration relationship between GDP and international trade in the long run for the case of Vietnam. The dependent variable of the study is the average growth rates of real GDP (G). The independent variables are exports as a percent of gross domestic product (EX), imports as a percent of the gross domestic product, gross capital formation as a percent of the gross domestic product (GCF) and real exchange rate (RER). The data is taken from World Bank Development Indicators. This study examines the relationship between economic growth, foreign direct investment, and trade and it also follows Zahoor (2002); John & Aiyelabola (2012)'s study which is based on the following equation:

$$G=f(EX,IM, GCF,RER)$$

This equation can be transformed into a linear function thus:

$$\ln G_t = \alpha_0 + \alpha_1 \ln EX_t + \alpha_2 \ln IM_t + \alpha_3 \ln GCF_t + \alpha_4 \ln RER_t + \varepsilon_t \quad (1)$$

Where: $\alpha_0, \alpha_1 - \alpha_4$ are parameters to be estimated.

ε_t is stochastic error term assumed to be independently and identically distributed.

G: Average growth rate of GDP

EX: is exports of goods and services measured as a share of the gross domestic product.

IM: which is imports of goods and services measured as a share of the gross domestic product.

GCF: is gross capital formation % of GDP

RER: Real exchange rate

The nature of the data distribution is examined using the descriptive statistics (mean, median, standard deviation, skewness, and kurtosis) while the Jarque-Bera test ascertains the normality of the data distribution. The time series property of each variable is investigated through the Augmented Dickey-Fuller (ADF) test for the unit root following Dickey & Fuller (1981). The Phillips-Perron (PP) test is also used to confirm the ADF test following Phillips & Perron (1988). The general form of ADF and PP test is estimated in the following forms:

$$\Delta Y_t = \alpha_0 + \alpha_1 \Delta Y_{t-1} + \sum_{i=1}^n \alpha_i Y_i + \delta_t + \varepsilon_t \quad (2)$$

$$\Delta Y_t = \alpha_0 + \alpha_i Y_i + \varepsilon_t \quad (3)$$

Where Y is a time series, t is a linear time trend, Δ is first difference operator, α_0 is a constant, n is the optimum number of lags in the dependent variable and ε_t is a random error term. The appropriate critical values of the t-statistic for the null hypothesis of non-stationarity are given by MacKinnon (1991). Engle & Granger (1987) show that if variables are co-integrated, so there is a valid long-term relationship, and then there exists a corresponding short-term relationship

For solving the problem of spurious regression and the violation of the assumptions of the classical regression model, the co-integration analysis is used to examine the long-run relationship between $\ln G$, $\ln FDI$, and $\ln TR$. Johansen-Juselius (1988, 1992) suggested a test for cointegration by considering the following p variable vector autoregressive model as

$$\varepsilon_t = \ln G_t - \alpha_0 - \alpha_1 \ln EX_t - \alpha_2 \ln IM_t - \alpha_3 \ln GCF_t - \alpha_4 \ln RER_t \quad (4)$$

The order of integration of the estimated residual, ε_t is tested. If there is a cointegrating regression, then the disequilibrium errors in equation (4) form a stationary time series, and have a zero mean, the ε_t should be stationary, $I(0)$ with $E(\varepsilon_t) = 0$.

The long run equilibrium may rarely be observed, but there is a tendency to move towards equilibrium. Thus, Error Correction Model is used to represent the long-run (static) and short-run (dynamic) relationships between FDI and other variables. Accordingly, Vector Error Correction Model (VECM) is suitable to estimate the effect of FDI on other variables especially RGDP on FDI. Thus, equation (5) represents Error Correction Model.

$$Y_t = \mu + \sum_{i=1}^k \theta_i Y_{t-i} + \varepsilon_t \quad (5)$$

Where Y_t is $(p \times 1)$ vector of $I(1)$ variables at time t . ε_t is the disturbance term assumed to be an i.i.d Gaussian process with mean zero and variance Ω . Although these variables could individually be non-stationary, if there are linear combinations of these variables that are stationary, then they form a meaningful and stable long run relationship. Thus exploiting the notion that they are cointegrated, one may parameterize equation (5) to obtain the following vector error correction representation (VECM):

$$\Delta Y_t = \mu + \pi Y_{t-1} + \sum_{i=1}^{k-1} \Gamma_i \Delta Y_{t-i} + \varepsilon_{t-1} \quad (6)$$

Where Γ_i s are estimable parameters. π is the long run parameter matrix whose rank determines the long run relationship between the variables. When the variables are integrated of order one and are cointegrated, π is not a full rank, meaning $0 < \text{rank}(\pi) < p$. The rank of π is equal to r , indicating the number of cointegrating vectors. Based on the trace test and maximum eigenvalue test we can determine the r . Moreover, if the series are cointegrated, it is shown that π matrix can be decomposed as $\alpha\beta$, with α and β both $(p \times r)$ matrices. β is the matrix of r cointegrating vector and α is the matrix of adjustment coefficients that show the speed at which the disequilibrium closes up in each short run period and so the variables move together toward the long run equilibrium.

4. Empirical Results

4.1. Unit Root Test

ADF test and PP test are used to test non-stationarity and stationarity for all variables, which are LnG, LnEX, LnIM, LnGCF and LnRER, and to examine the variables stationary at $I(0)$ or $I(1)$.

Table 1. ADF and PP Test Results

Variable	ADF T-statistic		PP T-Statistic		Critical Value		
	At level	1st difference	At level	1st difference	1%	5%	10%
LnG	-3.270*	-4.188**	-3.290*	-4.133**	-4.380	-3.600	-3.240
LnEX	-4.292**	-7.912***	-4.311**	-7.717***	-4.380	-3.600	-3.240
LnIM	-3.923**	-7.521***	-4.022**	-8.369***	-4.380	-3.600	-3.240
LnGCF	-2.728	-3.662**	-2.639	-3.641**	-4.380	-3.600	-3.240
LnRER	-8.222***	-8.836***	-6.747***	-8.471***	-4.380	-3.600	-3.240

Source: Author's calculation

Note: *** shows significant at 1% level; ** shows significant at 5% level; and * shows significant at 10% level, respectively

The results given in Table 1 show the results with intercept and trend, and no lag for each of the four variables included in this study. The test is based on the null hypothesis that the variable contains a unit root, and the alternative is that a stationary process generated the variable. If the calculated test statistics are less than the critical value of the test statistics, then the null hypothesis will be rejected. The unit root tests using intercept and trend suggests that all series are non-stationary in level and becomes stationary after differencing. Thus the variables become stationary of order one, $I(1)$ at 5% level of significant.

4.2. Optimal Lag Order

Before testing the existence of a long-term relationship between variables based on the cointegration test, we determined the optimal lag length based on a VAR model with initial data. The limited number of observations in the model led us to consider only models with a maximum of 2 lags.

The results in Table 2 obtained for the criteria LR and AIC, the optimal number of lags in the model is two. The FPE, HQIC and SBIC criteria indicate one lag as the optimal value, but the models based on this specification proved not to be feasible.

Table 2. Lag selection-order criteria

Lag	LL	LR	Df	P	FPE	AIC	HQIC	SBIC
0	98.6962				2.8e-10	-7.80801	-7.7429	-7.56259
1	182.923	168.45	25	0.000	2.1e-12*	-12.7436	-12.3529*	-11.271*
2	209.896	53.946*	25	0.001	2.5e-12	-12.908*	-12.1918	-10.2083

Source: Author's calculation

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

HQIC: Hannan-Quinn information criterion

SBIC: Schwarz information criterion

4.3. Cointegration Test

The Johansen cointegration based on the trace statistic and maximum Eigen value. The trace statistic states the null hypothesis is that the number of cointegrating equations is greater than the number of variables involved. The null hypothesis fails to be rejected if the test statistic is smaller than the critical values of the trace tests. The maximum eigenvalue test is conducted on the null hypothesis of the number of cointegrating equations against the alternative hypothesis of some cointegrating equations plus one. The null hypothesis cannot be rejected if the test statistic is smaller than the maximum eigenvalue test critical value.

Table 3 presents the result of Johansen cointegration test. Accordingly, the trace statistics and max statistic detect one co integrating relationship at 5% level of significance. This test indicates that there is a long-run equilibrium relationship among GDP growth rate, exports, imports, gross capital formation and real exchange rate in Vietnam. As a result, the vector error correction model is estimated.

Table 3. Johansen tests for cointegration

Maximum rank	LL	Eigenvalue	Trace statistic	5% critical value	Max statistic	5% critical value
0	168.85864		82.0744	68.52	43.5989*	33.46
1*	190.65809	0.83743	38.4755*	47.21	17.4586	27.07
2	199.3874	0.51686	21.0169	29.68	12.0969	20.97
3	205.43583	0.39591	8.9201	15.41	7.2257	14.07
4	209.04867	0.25997	1.6944	3.76	1.6944	3.76
5	209.89585	0.06816				

Source: Author's calculation

* denotes rejection of the hypothesis at the 0.05 level

4.4. Vector Error Correction Model (VECM)

The vector error correction model allows modeling adjustments that lead to a long run equilibrium relationship among the variables where a unidirectional long-term causal flow runs from changes in growth rate of GDP to other variables in Vietnam.

Table 4. Vector error correction model

	Coef.	Std. Err.	z	P>z
_ce1.L1	-0.9536235	0.2966502	-3.21	0.001
LD.lnG	0.4113951	0.2026557	2.03	0.042
LD.lnEX	1.164385	0.682634	1.71	0.088
LD.lnIM	-1.372494	0.6119228	-2.24	0.025
LD.lnGCF	0.7452433	0.4140219	1.80	0.072
LD.lnRER	-0.9155019	0.5131981	-1.78	0.074
cons	0.030423	0.0385328	0.79	0.430

Source: Author's calculation

As shown in Table 4, the estimated coefficient (β_i) of the error correction term $_ce1.L1$ which is negative (-0.954), as expected and statistically significant regarding its associated P-value (0.001). We checked the sign and significance of the error correction term and found that there was long-term causality running from exports, imports, gross capital formation and real exchange rate to the growth rate of GDP. We also checked the short-term causality of the growth rate of GDP with the lags of exports, the lags of imports, and the lags of gross capital formation and the lags of real exchange rate. The coefficient of LD.lnEX (1.164) and LD.lnGCF (0.745) considered are positively but insignificantly (P-value >0.05) related to the growth rate of GDP per capita, while the coefficient of LD.lnRER (-0.916) is negative and insignificant. We found that there was no short-term

causality running from exports, gross capital formation and real exchange rate to economic growth rate. However, the coefficient of LD.lnIM (-1.372) is negative and significant which means there was short-run causality running from imports to economic growth rate.

Table 5. Johansen normalization restriction imposed

Beta	Coef.	Std. Err.	z	P>z
_cel				
lnG	1			
lnEX	1.602812	0.2591858	6.18	0.000
lnIM	-1.896636	0.2651951	-7.15	0.000
lnGCF	0.4667998	0.108465	4.30	0.000
lnRER	0.0757872	0.2090429	0.36	0.717
_cons	-2.794153			

Source: Author's calculation

Following Johansen normalization restriction imposed shown in Table 5, the estimated coefficient of lnEX is 1.602812 which implies that in the long run, 1% rise in exports may result in 160.28% of the increase in growth rate of GDP. The calculated statistics for EX is 6.18 which is greater than the value of the tabulated statistics implies that the relationship between growth rate of GDP and exports is positive and statistically significant. The coefficient of IM is -1.896636 which implies that in the long run, 1% rise in imports may result in 189.66 % of the decrease in growth rate of GDP. The calculated statistics for IM is -7.15 which is greater than the value of the tabulated t-statistics implies that the relationship between growth rate of GDP per capita and trade is negative and statistically significant. Similar, the coefficient of GCF is 0.4667998 which indicates that in the long run, 1% rise in the gross capital formation may result in 46.68 % of the increase in growth rate of GDP. The calculated statistics for GCF is 4.30 which is greater than the value of the tabulated statistics implies that the relationship between growth rate of GDP per capita and GCF is positive and insignificant. The coefficient of RER is 0.0757872 which indicates that in the long run, 1% rise in the real exchange rate may result in 7.58 % of the increase in growth rate of GDP. The calculated statistics for GCF is 0.36 which is less than the value of the tabulated statistics implies that the relationship between growth rate of GDP and RER is positive and insignificant.

4.5. Diagnostic Tests

The problem of serial correlation arises when a variable has relationships with itself in a manner that the value of such a variable in past periods has an effect on its future values (Gujarati, 2004:680). We conducted a diagnostic check with the Lagrange Multiplier Test to decide whether we had serial auto-correlation or not with two lags. The result in Table 6 as shown P-value are more than 5 % significance level that means there was no auto-correlation in any lag. The diagnostic checks have all revealed the suitability of the model. Therefore, it is possible to draw final conclusions about the impact of foreign direct investment and trade on economic growth and the policies that can be applied safely.

Table 6. Lagrange-multiplier test

Lag	chi2	df	Prob > chi2
1	23.7656	25	0.53295
2	28.8672	25	0.26950

H0: no autocorrelation at lag order

Source: Author's calculation

Based on results from Table 7, the Jarque- Bera statistic of 0.530 with a probability of 0.76704 indicates the rejection of the null hypothesis at 5 percent significance level. This shows that residuals were normally distributed.

Table 7. Jarque-Bera test

Equation	chi2	df	Prob > chi2
D_gdp per capita growth annual	0.530	2	0.76704

Source: Author's calculation

5. Conclusion

This study investigated a relationship between exports, imports, gross capital formation, real exchange rate and growth rate of GDP for Vietnam with the help of annual time series data from 1990 to 2015.

The ADF and PP analytic techniques were performed to test for stationarity. All the variables were not stationary at levels, but they were stationary at first difference. The Johansen cointegration test indicates that there is a long-run equilibrium relationship among GDP growth, exports, imports, gross capital formation, and real exchange rate in Vietnam as indicated by both the maximum eigenvalue and the trace test statistics which

rejected the null hypothesis of no cointegration. The VECM result revealed that the speed of adjustment towards the long-run equilibrium is significant, meaning that the dependent variables have a long-run relationship with the dependent variables. The exports and gross capital formation variables have a positive and significant impact on the growth rate of GDP, the import has a negative and significant impact on growth rate, and the exchange rate has a negative and insignificant effect on growth rate. The negative relationship between GDP and exchange rate is a cause of business impact. Therefore, the government should strengthen, support and encourage the competitiveness of exports to maintain a sustainable balance with imports. Also, the government should develop a consistent and stable exchange rate policy that promotes business, contributing to economic growth. To check the validity of the VECM model, we did a few estimation diagnostic tests and found that the residuals of the regressions have a normal distribution and do not show any auto-correlation. Since a long-term relationship exists from the VECM model, we suggest that it is very important for Vietnam to create international trade policies. Macro policies play a major role in the long-term economic growth of the country.

References

- Adedeji, S. (2006), Writing and Research Proposal in G.O. edu.uI.ng/so Adedeji.
- Adewuyi, A. O. 2005, "Openness Total Factor Productivity Growth Dynamics: Evidence from Nigeria", *The Nigerian Journal of Economic and Social Studies* 48, 1-30.
- Amed, A.D., Cheng, E. & Messinis, G. (2008), "The Role of Exports, FDI and Imports in Development: New Evidence from Sub-Saharan African Countries", *Working Paper No. 39. Center for Strategic Economic Studies*, Victoria University, Melbourne.
- Barro, R. & Sala-i-Martin, X. (1995), "Economic Growth", *1st Ed. USA: McGraw Hill Inc.*
- Barro, R. (1991), "Economic growth in a cross section of countries", *Quarterly Journal of Economics*, 106, 407–443.
- Calderon, C., Loayaza, N., & Schmidt_Hebbel, K. (2004), "External Conditions and Growth Performance", *Working Papers Central Bank of Chile* 292.
- Chang, R., Kaltani, L., & Loayza, N. (2009), "Openness can be Good for Growth: The Role of Policy Complementarities". *Journal of Development Economics* 90(1), 33-49.
- Daumal, M. & Ozyurt, S. (2011), "The Impact of International Trade Flows on Economic Growth in Brazilian States", *Review of Economics and Institutions* 2(1).
- Dollar, D., & Kraay, A. (2004), "Trade, Growth and Poverty", *The Economic Journal* 114(493), 22-49.
- Edwards, S. (1998), "Openness, Productivity and Growth: What do we really know?", *Economic Journal* 108, 383-398.
- Frankel, A. J. & D. Romer. (1999), "Does Trade Cause Growth". *The American Economic Review* 89, 379-99.
- Freund, C. & Bolaky, B. (2008), "Trade, regulations, and income", *Journal of Development Economics* 87, 309-321.
- Greenway, David, & D. Sapsford. (1994), "What Does Liberalization Do For Exports And Growth?" *Weltwirtschaftliches Archive* 130, 132.
- Grossman, G.M. and E. Helpman. (1991), "Trade, Innovation, and Growth in the Global Economy", *MIT Press, Cambridge*.
- Hussain, M. & Saaed, A. (2014), "Relationship between exports, imports, and economic growth in Saudi Arabia: 1990-2011. Evidence from cointegration and Granger causality analysis", *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 5(3).
- Irwin, D. A. & Tervio, M. (2002), "Does Trade Raise Income? Evidence from the Twentieth Century". *Journal of International Economics* 58, 1-18.
- Jacob, W. M. & Zelealem, Y. (2014), "The impact of trade openness on growth: The case of Kenya", *Journal of Policy Modelling* 37, 342-354.
- John, S. A., & Aiyelabola, O. O. (2012), "Foreign trade and economic growth: evidence from Nigeria", *Arabian Journal of Business and Management Review* 2(1).
- Kumar, V. (2009), "Developing Credit Bureau IFC's Group Effort" It is not just Technology: Planet Finance Opportunities and Challenges, *Micro finance Focus*", *Journal of Applied Economics* 5(2), 123-129.
- Maureen, W. (2015), "Differential effects of trade on economic growth and investment: A cross-country empirical investigation", *Journal of African Trade* 2, 71–85.
- Mendoza, E. G. (1997), "Terms of Trade Uncertainty and Economic Growth", *Journal of Development Economics* 54, 323–356.
- Merale, F. V., Luljeta, S., & Mihail, P. (2015), "Empirical Analysis of the Effects of Trade Openness on Economic Growth: An Evidence for South East European Countries", *Procedia Economics and Finance* 19, 17-26.
- Miochealy. (1977), "Exports and growth: An empirical investigation", *Journal of Development Economics* 4(1), 49-53.

- O'Rourke, K. H. (2000), "Tariffs and growth in the late 19th century", *Economic Journal* 110, 456–483.
- Osei, Y., Cephas, N., Shaik, S., & Akua, A. (2012), "Effects of Trade Openness on Economic Growth: The Case of African Countries", Southern Agricultural Economics Association (SAEA, Annual Meeting, Birmingham, Alabama.
- Rodríguez, F. R. & D. Rodrik. (2001), "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence", *NBER Macroeconomics Annual* 15, 261-338.
- Saaed, A. A. J., & Hussain, M. A. (2015), "The Causal Relationship among Trade Openness, Financial Development and Economic Growth: Evidence from Kuwait", *Journal of Emerging Issues in Economics, Finance and Banking (JEIEFB)* 4(1).
- Sachs, J., & Warner, A. (1995), "Economic reform and the process of global integration", *Brookings Paper on Economic Activity* 1, 1–117.
- Samman, E. (2005), "Openness and growth: An empirical investigation", *Human development report*, occasional paper 2005/22.
- Srinivasan, T. N., & Bhagwati, J. (2001), "Outward-orientation and development: Are revisionists right. In D. Lal, & R.H. Snape (Eds.), *Trade, development and political economy*", Essays in Honour of Anne O. Krueger. NY:Palgrave.
- Tingwall, P.G., & Ljungwall, C. (2012), "Is China Different? A Meta-analysis of Export-led Growth", *Economic Letters* 115(2), 177–79.
- Tovonjatovo, S. & Dong, Y. (2015), "Impact of export on economic growth in Madagascar". *International Journal of Economics, Commerce and Management* 3(7).
- Winters, A. L. (2002), "Trade Liberalization and Poverty: What are the links?", *The World Economy* 25, 1337-1367.
- World Bank Open Data, [Online] Available: <http://data.worldbank.org/>
- World Trade Organization (WTO), 2013. *World Trade Report*. WTO, Geneva.
- Yasmin, B., Jehan, Z. & Chaudhary, M, A. (2006), "Economic Development and Trade Liberalization: Evidence from Pakistan", *Lahore Journal of Economics* 11(1), 19-34.
- Zahoor, H. J., Huma, R., Bader, A. C., Muhammad, F. N. (2015), "Effect of Financial Leverage on Performance of the Firms: Empirical Evidence from Pakistan", *SPOUDAI Journal of Economics and Business*, 65(1-2), 87-95.