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**IMPACT OF INTERNATIONAL TRADE ON ECONOMIC GROWTH
IN A DEVELOPING NATION - A CASE STUDY OF MALAYSIA**

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Abstract

Malaysia had recorded the highest income per capita, in the Asia-Pacific region, reaching about USD 1408.60, during the time of independence in 1957. However, the ranking dropped in the last two decades. This was due to the dramatic economic expansion in the four East Asian, newly industrialized countries. Findings also revealed that export and inflation rate did not significantly impact economic growth in Malaysia. This study concludes that foreign direct investment, trade openness and exchange rate did play an important role, in the determination of growth. A major policy implication of this study is that the Malaysian Government should create policies, that encourage trade openness and foreign direct investment and monitor exchange rate instability. They also need to consider the likely influence of the exchange rate changes, on the macroeconomic factors.

Keywords: *International Trade, Economic Growth, Trade Openness,
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1. Introduction

International trade involves exchange of goods, services and capital across international territories and borders. For a long time, this has been an area of growing interest among policy makers and economists. The year 2015 was a challenging year for Malaysia, in terms of economic as well as international trade, due to several factors, especially plummeting of global crude oil prices, Ringgit depreciation and sluggishness of Asian giant's trading momentum. Nevertheless, Malaysia's trade still managed to push beyond the estimate, projected by World Bank and International Monetary Fund (IMF) and it recorded a 5% growth than the estimated 4.7%. Despite exceeding the projection by 0.3%, the actual trade level record slightly dropped compared to 2014. Hence it is crucial for Malaysia, to restructure the movement of international trade, to ensure consistent performance in the near future (Abdul, et al., 2017). There are different opinions, on how international trade can affect the country's economic activities. Muhammad and Benedict (2015), applied the theory of Adam Smith, who used the principle of absolute advantage, in using labour as a main input, in international trade. According to Adeleye (2015), there was positive and insignificant relationship, between export and economic growth in Nigeria. This was because of the monoculture economy in which oil is the only export that acts as the sole support of the economy.

2. Review of Literature

According to Mushfica (2015), there was positive and significant relationship, between export and gross domestic product, in Bangladesh, due to the deficit production of that country. Nonejad and Mohammadi (2016) found that there was negative and significant relationship, between exchange rate and economic growth in Iran, using time series data. They explained that if exchange rate appreciated, it will increase the cost of imported

parts and equipment and hence the production will decrease, and this will affect the GDP. Mahapatra and Patra (2014), using time series analysis, found that there was positive and significant relationship, between FDI and economic growth, in India. This was due to the attractiveness of the host's country policy and market. Enu, et al (2013), in a study in Ghana, found that inflation rate reported negative and significant effect on economic growth, during the period, 1980 to 2012. Abdulsalam and Abdullahi (2016) found a positive and insignificant relationship, between inflation and economic growth, in Nigeria, by using time series data, from 1981 to 2014. The reason behind this result was due to the type of growth, which was technically termed as 'Exclusive Growth'. This term of growth did not reflect in the standard of living of average citizens of the country. According to Wajahat (2015), their study indicated negative and significant relationship, between trade openness and economic growth in Pakistan, by using time series data. This was because of conflict among the management and it was also due to the fact that Pakistan lacked quality institutions. Sikwila, et al., (2014) found that trade openness exercised positive and significant impact on the economic growth, in South Africa. This was because South African economy was relatively open than other African countries.

3. Statement of the Problem

Malaysia had reported the highest income per capita, in the Asia-Pacific region, about USD1408.60, during independence in 1957. However, the ranking dropped in the last two decades. One of the reasons was due to the dramatic economic expansion, in the four East Asian newly, industrialized countries. The annual growth rate of gross domestic product (GDP) of Malaysia, according to the standard of developing countries, was at a very impressive rate of 5.5

per cent during the period 1965-1986. It was also noted that the growth rate in the 1970s, was at a higher average of 6.5 percent, which witnessed a decline in the 1980s and in fact, it was a negative one percent (-1%) in 1985. Due to structural adjustment, privatization and re-structuring of state-owned enterprises, the Malaysian economy experienced fluctuations in the 1980s. The GDP of Malaysia drastically dropped to USD72.17 billion, in 1998, due to the Asian financial crisis, that originated from Thailand and escalated into a crisis that severely impacted the international economy and led to a recession by late 2008 (Khoon and Lim, 2010). Hence this study aims to examine the impact of international trade, on economic growth, in Malaysia.

4. Need of the Study

The result of the study will benefit the policy makers, both in public and private sectors, especially in the country of Malaysia. It would also be useful to the other developing countries, which are at the same level of development as Malaysia. This is because those economies also rely on international trade activities. Besides, it will also benefit policy makers who identify the international trade relationship with economic growth. Hence they will find ways to realise the full benefits, that international trade can offer, to the economic growth. It will also be significant to investors, economic watchers and the interested public. This will provide some insight into the performance of export business. To investors in general, it will expose the relationship between relevant variables used in the study and help the investors in making decision.

5. Objectives of the Study

The main aim of this study was to examine the significant relationship between exchange rate, export, foreign direct investment, trade openness and inflation and the economic growth, in Malaysia, from 1981-2018.

6. Hypotheses of the Study

NH-1: There is no significant relationship between all independent variables and economic growth in Malaysia.

NH-2: There is no significant relationship between export and economic growth in Malaysia.

NH-3: There is no significant relationship between exchange rate and economic growth in Malaysia.

NH-4: There is no significant relationship between foreign direct investment and economic growth in Malaysia.

NH-5: There is no significant relationship between inflation rate and economic growth in Malaysia.

NH-6: There is no significant relationship between trade openness and economic growth in Malaysia.

7. Methodology of the Study

7.1 Sample Selection

This study combines all the independent variables of international trade, which are exchange rate, export, foreign direct investment, inflation and trade openness. This study also modifies the theoretical framework, by combining all the five variables, in examining the impact of international trade on economic growth in Malaysia. The annual gross domestic product growth rate will be used, as proxy, for economic growth in Malaysia. All the data were secondary data for this study.

7.2 Sources of Data

The data were collected from World Bank and Data Stream.

7.3 Period of the Study

The data, which were annual time series data, from the year 1981 to 2018, which consisted of 38 observations, were used to conduct this study.

7.4 Tools Used in the Study

This study conducted diagnostic checking tests, such as normality test, autocorrelation test, heteroskedasticity and multicollinearity test.

Equation model

$$GDP_t = \beta_0 + \beta_1 EXP_t + \beta_2 EXR_t + \beta_3 FDI_t + \beta_4 INF_t + \beta_5 TRO_t$$

It shows that the GDP refers to Gross Domestic Product in Malaysia, β means that the coefficients used to tell the degree that will affect GDP, EXP refers to export, EXR refers to exchange rate, FDI refers to foreign direct investment, INF refers as inflation and TRO refers to trade openness. The study operationalize all the variables and economic growth was measured by GDP, export was measured by EXP, exchange rate was measured by EXR, foreign direct investment was measured by FDI, inflation was measured by INF and trade openness was measured by TRO.

8. Data Analysis

With the help of annual data, for the period 1981 to 2018, the diagnostic checking tests were carried out, to test for presence of error terms and multiple linear regressions were used, to identify normality and model specification and to find out whether there were issues of multicollinearity, heteroskedasticity and autocorrelation. In order to find out whether there were error terms in the model, Jacque-Bera normality test was administrated. According to **Table-2**, the p-value of 0.5523 was more than 0.10, at significance level and hence it can be concluded that the error terms of this multiple linear regression model were normally distributed. Ramsey RESET test was used to determine whether the model was correctly specified. In this study, the result for the t-statistic was 0.2147, F-statistic is 0.2147 and Likelihood ratio was 0.1632 and they were all greater than the significance level of 1%, 5% and 10%. It indicated

that the multiple linear regression model was not mis-specified, at the significance level of 1%, 5%, and 10%.

The results of variance inflation factor (VIF) indicated that all the independent variables recorded values, between 1 and 10, which implied that there was no multicollinearity. In order to investigate whether there was heteroskedasticity and autocorrelation problem, Autoregressive Conditional Heteroskedasticity (ARCH) test was administered. Results showed that the model was free from heteroskedasticity as the p-value was 0.6852, which was greater than the significance level of 10%. Therefore, it can be concluded that this study did not report heteroskedasticity problem. The Breusch-Godfrey LM Test was done, to detect autocorrelation issues, since the p-value was 0.1501 which was greater than the significance level of 10%, it indicated that this study experienced no autocorrelation issues. By using hypothesis testing method, this study reported no heteroskedasticity and autocorrelation problem. In other words, this model was normally distributed and model specification was not misspecified. Based on the results obtained, all the variables attained stationary for ADF and PP unit root test at the level of significance at 1st difference. Thus, the hypothesis of non-stationary was rejected and therefore, all the variables were stationary.

A multiple linear regression model was used, to estimate the existing relationship between variables before the ordinary least square (OLS) method was applied. According to the **Table-1**, independent variable of export (EXP) was positive but not significant, with a p-value of 0.1413 ($P > 0.1$) This result was supported by studies done by **Adeleye, et al., (2015)** in Nigeria, where they found that export remained positive because Nigerian economy was a monocultural economy, with only oil as

the sole support of the economy, without tangible support from other sectors such as industrial or manufacturing and agriculture. In terms of exchange rate (EXR), the results reported negative and significant relationship between GDP and exchange rate. These results concurred with the studies, done by **Nonejad and Mohammadi (2016)**, which explained the trend in the exchange rate. If the currency appreciated, it will increase the cost of production and therefore, the production will decline and lead to decrease in gross domestic product. According to **Umaru (2012)**, inflation exercised positive impact on economic growth, by encouraging productivity and output level and by increasing total factor productivity (TFP). A good performance of an economy, in terms of per capita growth, may, therefore, be attributed to the rate of inflation in the country. Lastly, trade openness (TRO) reported negative and significant relationship with GDP. The p-value of 0.0089, was less than significance level of 0.01. This study was consistent with the previous study, done by **Wajahat (2015)**, who explained, that increasing trade openness might lead to exchange rate to depreciate, resulting in a negative trade balance. According to **Sikwila, et al. (2014)**, the country that maintains high trade barriers, need to include tariff restrictions, in order to sustain the economic growth. The result of hypothesis testing can be referred to in **Table-3**.

9. Findings of the Study

The hypothesis testing of export in this study, revealed that there was insignificant and positive effect on Malaysia's economic growth. This result was consistent with the previous studies such as **Kim, et al., (2012)**. They stated that exports were insignificant to economic growth. But this did not mean that exports did not benefit the country. Exports did allow an economy, to enjoy foreign exchange benefit and economies of scale. It also acted as catalyst for accumulation of capital and

therefore, export would increase economic growth. Exports can contribute to growth through capital deepening in East Asia.

The result indicated that exchange rate reported negative and significant relationship with the economic growth of Malaysia. This result was consistent with past studies by **Basirat, et al., (2014)**. One of the reasons was due to the economic decision making and policy, towards economic growth. Exchange rate is an indicator, that was directly related to the economy and it can provide financial boom. Exchange rate, that fluctuated, might also cause high fluctuation in trade balance. Hence choosing the right exchange system, is one of the key factors. Choosing exchange system and policies, that are ineffective, may cause the country to suffer negative effects on their economic growth. Fluctuations of exchange rate will cause big changes in foreign trade and also investment. The result indicated that foreign direct investment was positive and exercised significant effect on economic growth. This was supported by **Moolio and Guechheang (2013)**. The impact of foreign direct investment was limited to its output growth effects. Relationship between foreign direct investment and growth depended on internal factor of the recipient countries. These would include institutional factors such as degree of economic and political stability, law enforcement, degree of openness and trade policies. **Umaru and Zubairu (2012)** found that there was no significant relationship between inflation and economic growth in Malaysia. Inflation implies prices going up and buying capacity of people going down and when interest rates move up and new capacity becomes difficult to add. Thus, the production goes down and gross domestic product also goes down. Therefore, inflation does not have influence on economic growth.

This study also found that the relationship between trade openness and economic growth

was negative but significant. **Mputu and Christelle (2016)** mentioned that negative and significant relationship between trade openness and economic growth was due to tariff escalation. This was due to high import duties on semi-processed and finished products and low import duties on raw materials. If this happens in domestic industries in developed countries, it will affect the development of processing industries in the countries that produce primary commodities. Therefore, countries, that are richly endowed with natural resources, are compelled to produce commodities and it actually discourages economic growth.

10. Suggestions

This study had achieved the entire research objective, which was to investigate the significant relationship between independent variables and dependent variables, in the context of international trade. This study concluded that the exchange rate, foreign direct investment and trade openness, were significant in examining the economic growth of Malaysia. Export and inflation rate were not significant variables towards economic growth of Malaysia. This result was supported by previous studies. This can also be a guideline and reference to the policymakers such as Bank Negara Malaysia and government, in order to increase the economic growth of Malaysia. For instance, these studies also can effectively support the process of decision making, either to expand the markets or in terms of investment. A major policy implication of this result is that policy makers should take into account both the presence and the amount of exchange rate instability and take into account the likely influence of the exchange rate changes on each macroeconomic factor, in the application of trade policies and therefore, greater volumes of trade as well as foreign direct investment, might be possible.

11. Conclusion

This study found that the impact of international trade played an important role for a country. The impact can affect investors' decision to invest in Malaysia. This study had applied diagnostic checking like, F-test, and T-test, to determine the significance of both the variables, which were independent and dependent variables. This study carried out F-test to see whether the multiple linear regressions model was significant or not. After the model had been proved to be significant, the diagnostic checking was done through the Jarque-Bera normality test. This test was designed to see whether error terms of the model were normally distributed. Ramsey's RESET test was administered, to see whether the model was correctly specified. Multicollinearity test was applied, to check whether there was multicollinearity problem between the variables. Autoregressive Conditional Heteroscedasticity (ARCH) Test was applied, to find out whether the model reported heteroskedasticity problem or not and Breusch-Godfrey test was applied to investigate whether the model experienced autocorrelation problem or not. Results indicated that export and inflation were insignificant to the economic growth of Malaysia, at 0.10 significant levels while for the other independent variables like exchange rate, foreign direct investment and trade openness were significant to economic growth of Malaysia, at 0.01, 0.05 and 0.10 significant levels.

The main aim of this study was to examine the impact of international trade on economic growth in Malaysia, from 1981 to 2018. It can be concluded that exchange rate, foreign direct investment and trade openness were significant in influencing the economic growth of Malaysia. On the other hand, export and inflation rate were not significant variables towards economic growth of Malaysia. This can be a guideline and

reference to policymakers such as Bank Negara Malaysia and policy makers to increase the economic growth of Malaysia. For instance, these studies can also be useful, in the process of decision making, either to expand the markets or in terms of investment. This study concluded that the foreign direct investment did play an important role in the determination of growth, as it is evident from the model. Through the foreign direct investment, advanced technologies can be absorbed by Malaysia. Next, these technologies can lead to innovative products in this country, leading to larger exports. In order to achieve this, policy makers have to ensure economic, social and political stability. These three aspects can attract foreign investors, which will stimulate more economic growth. Also, policy makers should create policies, that encourage trade openness and foreign direct investment, besides reducing tax on imports of goods and services. This move will reduce the prices of imports, thus assisting in the increase of trade openness, which will lead to a larger economic growth. Policy makers also should take into account, both the presence and the amount of exchange rate instability and take into account the likely influence of the exchange rate changes on each macroeconomic factor, in the application of trade policies. Therefore, greater volumes of trade as well as foreign direct investment might be attracted. Increase in trade openness will lead to the shifting of advanced technology, which will impact infrastructure and communication technology, which can increase economic growth due to the export of products to other countries. The findings of this study can also be beneficial in designing appropriate fiscal and monetary policy, to control the inflation rate and attract investors in future.

12. Limitations of the Study

Firstly, facts and data, gathered from other studies, findings and results, could be biased and affected by different views, personal

assumptions and opinions. Results were limited in their generalizability as this study did not have any control on the data availability. The same study done in a different country, might have opposite impact of international trade, on their economic growth performance.

13. Scope for Further Research

It is recommended that further studies could increase the sample size and also use monthly, quarterly, semiannual data, instead of using annual data as this was also part of the limitations of the study. Bigger the sample size lower the probability of having multicollinearity, heteroskedasticity and autocorrelation problems. Future studies could add more independent variables, in examining the impact of international trade on the economic growth of Malaysia.

14. References

- Abdul Aziz M.F., Imbarine B., Alice W.** In-Depth Analysis of Malaysia International Trade Pattern. *International Journal of Supply Chain Management*, 6(2), pp.96-104
- Abdulsalam, S. A. B. (2016).** The impact of unemployment and inflation on economic growth in Nigeria (1981-2014). *International Journal of Business and Economic Sciences Applied Research*, 9(1), pp.47-55.
- Adeleye J. O., Adeteye O. S., Adewuyi M. O. (2015).** Impact of International Trade on Economic Growth in Nigeria (1988-2012). *International Journal of Financial Research*, 6(3).
- Basirat, M., Nasirpour, A., & Jorjorzadeh, A. (2014).** The Effect Of Exchange Rate Fluctuations On Economic Growth Considering The Level Of Development Of Financial Markets in Selected Developing Countries. *Asian Economic and Financial Review*, 4(4), pp.517-528.
- Enu, P., Attah-obeng, P., & Hagan, E. (2013).** The Relationship Between GDP Growth Rate

- and Inflationary Rate In Ghana: *An Elementary Statistical Approach. Academic Research International*, 4(5), pp.310–318
- Khoon, G. S., & Lim, M.-H. (2010).** The impact of the global financial crisis: the case of Malaysia. *Third World Network*. Retrieved <https://doi.org/10.1016/j.gfj.2015.02.002>
- Kim, S., Lim, H., & Park, D., (2012).** Imports, exports and total factor productivity in Korea. *Journal Applied Economics*, 41(14), pp.1819 – 1834.
- Mahapatra, R., & Patra, S. (2014).** Impact of Foreign Direct Investment (FDI) on Gross Domestic Product (GDP) of India - an Empirical study. *International Journal of Business and Management Invention*, 3(6), pp.12–20.
- Moolio, P., & Guechheang, L. (2013).** The Relationship between Gross Domestic Product and Foreign Direct Investment: The Case of Cambodia, *KASBIT Business Journal*, 6, pp.87-99.
- Mputu & Christelle, L. (2016).** Terms of Trade, Trade Openness and Economic Growth in Sub-Saharan Africa, *Culminating Projects in Economics*. 3.
- Muhammad M. Yakubu & Benedict N. Akanegbu, (2015).** The Impact of International Trade on Economic Growth in Nigeri:1981 - 2012. *European Journal of Business Economics and Accountancy*, pp. 26-36.
- Mushfica, A, (2015).** The impact of export and import on economic growth in Bangladesh, *World vision*, 9. (1).
- Nonejad, M., & Mohammadi, M. (2016).** The Effect of Exchange Rate Fluctuation on Economic Activities of Iran, *International Review of Management and Business Research*, 5(2), pp.353–365.
- Sikwila, M. N., Ruvimbo, N. G., & Mosikari, T. J. (2014).** Trade Openness and GDP Growth Nexus in South Africa. *Global Journal of Management and Business Research: B Economics and Commerce*, 14(7), pp.1–7.
- Umaru, A. & Zubairu (2012).** Effect of Inflation on the Growth and Development of the Nigerian Economy (An Empirical Analysis), *International Journal of Business and Social Science*, 3(10), pp.183–191.
- Wajahat, A. (2015).** The Impact of Trade Openness on the Economic Growth of Pakistan: 1980, 2010. *Global Business and Management Research: An International Journal*, 7(2), pp.120–129.

Table-1: Empirical Results of Model

logGDP _t	= 3.8265	+0.1692 logEXP	– 0.3967 logEXR	+ 0.1305 logFDI	+0.000950 logINF	–0.6520 logTRO
p-value	(0.0000)***	(0.1413)	(0.0464)**	(0.0004)***	(0.9767)	(0.0089)**
	Significant at 5% significance level	Not significant at 5% significance level	Significant at 5% significance level	Significant at 5% significance level	Not significant at 5% significance level	Significant at 5% significance level
R ² = 0.5459						
Adjusted R ² = 0.4702						
Prob(F-statistic)= 0.000155						

Source: collected from World Bank and Data Stream and computed using SPSS

Table-2: Summary of Diagnostic Checking of Multiple Linear Regressions

	Hypothesis Testing	p-value	
1	Jarque-Bera normality test	0.5523	
2	Ramsey's RESET test		
	t-statistic	0.2147	
	F-statistic	0.2147	
	Likelihood ratio	0.1632	
3	Multicollinearity test		
		Independent Variables	Variance Inflation Factor VIF
	a.	Export	1.9861
	b.	Exchange Rate	3.2407
	c.	Inflation	1.1607
	d.	Foreign Direct Investment	2.4402
	e.	Trade Openness	4.1185
	Hypothesis Testing		
4	Autoregressive Conditional Heteroscedasticity ARCH test	0.6852	
5	Breusch-Godfrey LM test	0.1501	

Source: Collected from World Bank and Data Stream and Computed using SPSS

Table-3: Decision for the Hypotheses of the Study

	Hypotheses of the study	Decision
i.	NH-1: There is no significant relationship between all independent variables and economic growth of Malaysia.	Reject NH-1
ii.	NH-2: There is no significant relationship between export and economic growth of Malaysia.	Fail to reject NH-2
iii.	NH-3: There is no significant relationship between exchange rate and economic growth of Malaysia.	Reject NH-3
iv.	NH-4: There is no significant relationship between foreign direct investment and economic growth of Malaysia.	Reject NH-4
v.	NH-5: There is no significant relationship between inflation and economic growth of Malaysia.	Fail to reject NH-5
vi.	NH-6: There is no significant relationship between trade openness and economic growth of Malaysia.	Reject NH-6

Source: Compiled by Authors