



THE RELATIONSHIP BETWEEN REAL EXPORT, LABOR FORCE, FOREIGN DIRECT INVESTMENT AND REAL GROSS DOMESTIC PRODUCT IN MALAYSIA

AINUR ATTIRA AZMI¹ & NORIMAH RAMBELI^{1*}

^{1*} Faculty of Management and Economics, Sultan Idris University of Education (UPSI), 35900 Tanjong Malim, Perak, MALAYSIA.
Email: ainurattira97@gmail.com; norimah@fpe.upsi.edu.my

Correspondent Email: norimah@fpe.upsi.edu.my

Received: 5 June 2024

Accepted: 18 June 2024

Published: 18 July 2024

Abstract: This study aims to investigate the relationships between real export, labor force, foreign direct investment and real GDP in Malaysia. Generally, the real GDP growth rate is always used as a measure of a country's economic growth. In other words, an increase in the real GDP means that the economy is doing well. This study uses annual time series data from 1990 to 2022 for analysis purposes. The estimated model is developed by employing the Ordinary Least Square (OLS) regression model. The findings of this study have discovered a positive correlation between real exports, labor force, foreign direct investment and real GDP. The findings show that as time goes on, all variables, namely real exports, labor force and foreign direct investment have a positive relationship with real GDP. This means that all these aspects have a positive impact on the economic growth of Malaysia, thus driving the economic growth towards positive path. For future study, further analysis should be done to explain more about the relationships of these variables with Malaysia's real GDP in the short run and long run by using the dynamic approach.

Keywords: Real GDP, Real Export, Labor Force, Foreign Direct Investment

Cite This Article:

Ainur Attira Azmi & Norimah Rambeli. 2024. The Relationship Between Real Export, Labor Force, Foreign Direct Investment and Real Gross Domestic Product in Malaysia. *QALAM International Journal of Islamic and Humanities Research*. 4(3), 15-28.

PENGENALAN

Topic involving economic growth has generated an enormous volume of literature and heated debate in recent years. This situation has widely attracted the attention of the economists all over the world. Gross Domestic Product (GDP) is an indicator that measures the total value of all final goods and services produced inside a country's borders during a given period, often a year. GDP is also one of the determinants of a country's economic growth. GDP is the unit of measurement for each country's annual national revenue and is used to assess economic performance and guide national development. The paradigm shift in the economy from static to dynamic has sparked considerable attention from economists since the 90s. The idea is that economy is not static economic structure can change according to the (Galbraith, 1994). A change in the economy can affect the development of a country. GDP also valuable tool that is used by the government to monitor on a few aspects of the economy to maintain and keep a

stable economy and the cost of living. Since the GDP will help provide a good picture on the 'temperature' of the economy. For this reason, it will be crucial for study this issue to find out the determinant of economic growth in Malaysia.

There are macroeconomic variable factors that can affect the value of GDP like investment such as Foreign Direct investment (FDI), real exports, and labor force. Moreover, labor force participation can also be the reason why the value of GDP is always different between the years. In this study, the researcher will investigate the relationship between real export, labor force participation and FDI toward the value of real GDP from 1990 to 2022 in Malaysia. In Malaysia, to stimulate economic growth, a government can enact a policy to increase aggregate demand (national expenditure) or aggregate supply (national output). When a nation with a higher value of GDP, it can attract more investors to invest their capital into our country (Gan,2018). As a result of increased investment, the country's tax return and production level also increases and lead to higher GDP, (Khushnood et al., 2019). On other hands, Belloumi and Alshehry (2018), found that a negative result that show an effect between GDP growth and FDI. The study supports this finding carried out by researcher Olorogun et al. (2020), which stated that FDI could affect GDP. This shows that there is no consensus on the relationship between FDI and economic growth in a country. That's why an endeavor has been taken to study these economic factors to examine the actual situation of whether FDI affects GDP?

The track for the rest of this study is as follows divided into five parts. The literature review section provides a literature review previously discussed related to the topic and provides the study's theoretical framework. The methodology discusses the variables, data and research methodology used for empirical inferences. The empirical findings section deals with the results and discusses the study's findings. The conclusion section concludes the study, provides the policy recommendations for increasing employment opportunities in Malaysia.

LITERATURE REVIEW

In this section there will be discussion regarding the relationship between each independent variable and dependent variable.

The Relationship between Real Export and Real Gross Domestic Product (GDP)

Dilek and Aytac (2010) stated that their research results show that one-way directional causality exists between real export growth and real GDP growth from real GDP growth to real export growth. Modeling techniques used by this researcher show long-run impact from economic growth to export growth. There is a bilateral relationship between real exports and real GDP. It means that real exports will granger cause real GDP and real GDP also can granger cause real exports (Hashim et al. 2019). There are also a few researchers who stated that exists positive relationship between real export and economic growth (GDP). Moreover, in addition, Shafiullah and Navaratnam (2016) also found in their study that emerging economies (NEE) have reached a level of economic growth that stimulates when the service sector is more advanced or rapid as well as increased productivity and technological efficiency as well as the accumulation of better-quality human capital. The development of exports is considered one of

the main factors to promote economic development in developing countries, which makes after it gives an encouraging contribution to GDP. They used the autoregressive distributed lag (ARDL) method to study the relationship between exports and GDP in Bangladesh and Sri Lanka for the period 1980-2011. They claim that there is a two-way causality between exports and GDP in these two Asian countries (Shafiullah and Navaratnam, 2016).

The Relationship between Labor Force and Real Gross Domestic Product (GDP)

The labor force plays an important role in maintaining the trend of economic growth. Rambeli et al. (2016) did their research and found out that in the event of an increase of one percent of labor force, the production value of economic growth will increase by 0.001 percent based on their model. This shows that the labor force variables have a positive relationship with economic growth. Moreover, according to the Human Capital Index model, investing in human capital can have significant economic benefits in the long run, especially when it comes to economic growth, particularly in the employment sector, (Kraay et al. 2018). This study was supported by (Yıldırım & Akinci, 2020). Labor has an important role in shaping a country's national income. However, the theory developed by Solow cannot be applied to all countries. In line with this, one of their studies was conducted by researchers Marelli & Pastore (2010) found in their findings that a change in national income does not always have a significant value through the value of the change in the labor force share. However, this statement has been refuted by another researcher, namely Auzina et al, (2014) who mentioned in his research writing that the level of the workforce's ability to implement production activities greatly influence the value of rapid economic growth and have a contribution to maintain and increase competitiveness among countries in the world. Indirectly, it states that each value of labor will give a positive value to the GDP of a country.

The Relationship between Foreign Direct Investment (FDI) and Real Gross Domestic Product (GDP)

Foreign investment falls into two broad categories: foreign direct investment (FDI) and foreign portfolio investment (FPI) (Ullah and Tahir 2022; Botta 2018; Tsauroi 2022). In many countries, foreign investment is used to collect the capital necessary for overcoming liquidity (Türkcan et al. 2008; Gunaydin and Tatoglu 2005; Agyapong and Bedjabeng 2020). According to Alfaro & School (2003) this paper finds that FDI flows into the different sectors of the economy (namely primary, manufacturing, and services) exert different effects on economic growth. FDI inflows into the primary sector tend to have a negative effect on growth, whereas FDI inflows into the manufacturing sector have a positive effect on growth while FDI inflows into the service sector have an ambiguous effect. So, we can say that benefits associated with FDI tend to be related to the manufacturing sector. Shaari et al. (2012) and (Tariq et al., 2020) have claimed that the FDI is one of the broadest indexes which capture the debt and securities market, banks, mutual funds, pension funds, insurance market, and equity market. The outcomes of these studies suggest that it has a significant favorable effect on any country's economic growth.

METHODOLOGY

Model Specification

Regression model:

$$RGDP = \beta_0 + \beta_1RX + \beta_2LF + \beta_3FDI + \varepsilon_t$$

Where,

RGDP = REAL GROSSDOMESTIC PRODUC

T RX = REAL EXPORT

LF = LABOR FORCE

FDI = FOREIGN DIRECT INVESTMENT

ε_t = Error that obtained from the data that collected

\square_0 = Intercept and $\square_1, \square_2, \square_3$ = Partial coefficient to RX, LF and FDI

From equation (1), the dependent variable is real gross domestic product and the independent variables are real export, labor force and foreign direct investment

Times Series Data

This analysis was conducted in Malaysia, utilizing annual data from 1990 to 2022. The goal was to look at the variables such as real exports, real gross domestic product, labor force, and foreign direct investment. To do the analysis, we collected the data for over 32 years, from 1990 until 2022. According to Jenkins et al. (2015), it thoroughly introduces time series analysis, including theoretical foundation and practical applications. The authors review several techniques, such as trend analysis, autocorrelation, spectral analysis, and state-space models, for modeling and evaluating time series data. The reference list of data we found for each economic variable is shown in the table of time series data (in the appendix). The World Development Indicators (WDI) database, the Department of Statistics Malaysia, and The World Bank organization gather data on real gross domestic product (GDP), real export, labor force, and foreign direct investment. Due to unit differences across variables, all data have been converted into a linear version of the natural logarithm to prevent model selection problems. These variables' test results were obtained using "Statistical Package for Social Sciences (SPSS) version 25." 14 The software assists in properly interpreting acquired data to establish a statistical relationship between the dependent and independent variables. The t-test and the F-test (Wald-test) will be used for statistical testing in this investigation.

Econometric Approach

The relationship between the independent and dependent variables will be examined in this study using Ordinary Least Squares (OLS) regression, which is an econometric method. OLS is chosen as the preferred estimator because it has some desirable qualities, such as low sampling variability and unbiasedness. Tests like Pearson correlation and regression analysis will be used in this study to determine the significance of the relationship. The analysis's robustness will also be checked using autocorrelation, multicollinearity, and heteroscedasticity.

Autocorrelation

The connection between observations of the same variables made at various times in history is explained by autocorrelation. Mean, and variance are functions that are used to calculate autocorrelation. The Durbin-Watson (d-test) determines whether the economic model's autocorrelation is valid. The lower and upper limits of the d value based on the d statistic obtained will be consulted before comparing the Durbin-Watson value acquired from the SPSS result.

Heteroscedasticity

Heteroscedasticity is generally a systematic pattern in the error when the variances of the error are not constant. When there is variation in the error among data, modeling issues arise. In this study, the Park test is applied. When the significant value exceeds 0.05, heteroscedasticity is present. In the case where the significant value is less than 0.05, there is no heteroscedasticity.

Multicollinearity

Multicollinearity generally refers to a scenario where two or more explanatory variables in a multiple regression model have a close relationship. If, for instance, the correlation between two dependent variables equals 1 or -1, as in the equation above, then we have perfect multicollinearity. Two methods have been employed in this investigation to look into this issue. The examination of the variance inflation factor (VIF) is the first. The variables are highly correlated if the VIF score is more than 10. Low collinearity, on the other hand, is defined as a collinearity number of fewer than 10.

EMPIRICAL FINDINGS

Reporting the Multiple Regression Model

Equation (2) simplifies the multiple linear regression model result from the SPSS software output. The estimated regression model of this study is as follows;

| | |
|-------------------------|--|
| Real GDP | = -9.531 + 0.243Rx + 1.711 LF+ 0.022 FDI (2) |
| SE | (0.443) (0.040)*** (0.081)*** (0.010)** |
| t* | (-21.493) (6.127) (21.011) (2.171) |
| F* | = 1479.471 |
| R ² | = 0.994 |
| Adjusted R ² | = 0.993 |
| DW | = 0.538 |

EXPLANATION

We found that the value of R square (R^2) is equal to 0.994, in other words it can be said that the combination of independent variables such as Real export (RX), Foreign Direct Investment (FDI) and Labor Force (LF) are fitted in explaining dependent variable GDP at 99.4%. Table 1 summarizes the results of the significance level analysis by using SPSS software. From the table above, real export (RX) to GDP, labor force (LF) to GDP, foreign direct investment (FDI) to GDP are three variables that have been recognized as affecting Malaysia's economic growth. The relationship between RX, LF and FDI is positive towards GDP. Moreover, If RX increases 1% it will lead to real GDP increase by 0.243 %, another word is RX increase 100% it will lead to real GDP to increase by 24.3%. Besides, if it increases by 100% it will affect the real GDP increase by 71%. If FDI increases 100%, it will lead to the real GDP increase by 2.2%. At a 99% significance level, if 1% increases in real export (RX) and labor force (LF) to GDP will decrease Malaysia's economic growth by 0.001%, while Malaysia's economic growth will increase by 0.038% if foreign direct investment (FDI) to GDP rises by 1% at 95% significance level.

Table 1: Notation Analysis of the Level of Significance

| Independent Variable | α | (1 - α) | % | (*) Notation |
|---------------------------------|----------|------------------------------------|-----|--------------------------------------|
| REAL EXPORT (RX) | 0.000 | = 1-0.001 = 1 -0.001 = 0.999 | 99% | Significant at 99% level (***) |
| LABOR FORCE (LF) | 0.000 | = 1 -0.001 = 0.999 | 99% | Significant at 99% level (***) |
| FOREIGN DIRECT INVESTMENT (FDI) | 0.038 | =1 -0.038 = 0.962 | 95% | Significant at 95% level (**) |

Hypothesis Testing T-Test and F-Test

T-test and F-test are two of the statistical tests used in this study for hypothesis testing (Wald test). T-tests are used to determine the relevance of an independent variable on a dependent variable. Wald-test analyzes are most useful for determining whether the independent variables work together to explain the dependent variable's behavior. The results of the t-test hypothesis testing are shown in Table 2.

The t-test is conducted to study the importance of the variables in contributing towards the Real GDP growth. The results of the t-test indicate either acceptance or rejection of the hypothesis. Therefore, if the t-test carried out above shows that the critical value ($t = (\alpha/2, N-K)$) is 2.045. This test was conducted using the 5% significance level to study the importance in explaining the contribution towards the Real GDP. The outcome of real export to real GDP indicates that the $t^* = 6.075$ which is higher than the critical value so the hypothesis is rejected

as it explains that the real export is important in explaining the economic growth it is mentioned by Bahmani-Oskooee (1993) shows through the Johansen test that when taken into account in the more suitable multivariate model, the two variables export and economic growth do exhibit a consistent long-term relationship.

Moreover, LF test statistical value (t^*) is equal to 21.12, which is higher than its critical value, $t = 2.045$. The t-test outcome for this independent variable indicates that the null hypothesis cannot be accepted (Reject H_0). At the 95 percent level of significance, this indicates that the LF variable is important in explaining Malaysia's economic growth. Economic growth is facilitated by a fully functional labor force (Duval et al., 2010). Lastly, the last FDI to GDP test statistical value is equal to 2.2, which is higher than its critical value, 2.045, and so H_0 is rejected. The FDI variable is significant in explaining Malaysia's GDP growth at a 95% level of significance. This finding is proven recently, Soto (2003) and Choe (2003) questioned the widely held belief that FDI contributes more to economic growth because of the advanced technology it embodies.

Table 2: T-test Hypothesis

| Independent Variable | Hypothesis | Statistical Test | Critical Value | Conclusion |
|---------------------------------|---|---|--|---|
| REAL EXPORT (RX) | $H_0 : \beta_1 = 0$ $H_1 : \beta_1 \neq 0$ | $t^* = \frac{\beta_1 - \beta_1}{SE(\beta_1)}$ $= \frac{0.243}{0.040}$ $= 6.075$ | $t = (a/2, N-K)$ $= (0.05/2, 33-4)$ $= 0.025, 29$ $= 2.045$ | $t^* > t, 6.075 > 2.045$ At a 5% significance level, the result suggests rejecting H_0 . Therefore, RX is important in explaining economic growth at 95% significance level. |
| LABOR FORCE (LF) | $H_0 : \beta_1 = 0$ $H_1 : \beta_1 \neq 0$ | $t^* = \frac{\beta_2 - \beta_2}{SE(\beta_2)}$ $= \frac{1.711}{0.081}$ $= 21.12$ | $t = (a/2, N-K)$ $= (0.05/2, 33-4)$ $= 0.025, 29$ $= 2.045$ | $t^* > t, 21.12 > 2.045$ At a 5% significance level, the result suggests reject H_0 . Therefore, LF is important in explaining economic growth at 95% significance level. |
| FOREIGN DIRECT INVESTMENT (FDI) | $H_0 : \beta_1 = 0$ $H_1 : \beta_1 \neq 0$ | $t^* = \frac{\beta_3 - \beta_3}{SE(\beta_3)}$ $= \frac{0.022}{0.01}$ $= 2.2$ | $t = (a/2, N-K)$ $= (0.05/2, 33-4)$ $= 0.025, 29$ $= 2.045$ | $t^* > t, 2.2 > 2.045$ At a 5% significance level, the result suggests reject H_0 . Therefore, FDI is important in explaining economic growth at 95% significance level. |

The Wald hypothesis test results are shown in Table above. The F-statistic is a test to examine the goodness of fit for the entire regression. According to the result, it found that the value of $F^* > F(3, 29)$ where $1479.471 > 2.92$. Therefore, H_0 is rejected at 95% significance level. In other words, the combination of the real export to GDP (RX), labor force to GDP (LF), foreign direct investment to GDP (FDI) is a good combination in explaining Malaysia's economic growth in the long term.

Table 3: t-Distribution Curve

| Independent Variable | t- distribution Curve | Conclusion |
|--|-----------------------|--|
| Real Export (RX) to GDP | | The result suggests that $-6.075 > 2.045$, hence reject H_0 . Therefore, RX is important in explaining economic growth at 95% significance level. |
| Labor Force (LF) to GDP | | The result suggests that $21.12 > 2.045$, hence reject H_0 . Therefore, LF is important in explaining economic growth at 95% significance level. |
| Foreign Direct Investment (FDI) to GDP | | The result suggests that $2.2 > 2.045$, hence reject H_0 . Therefore, FDI is important in explaining economic growth at 95% significance level. |

Table 4: The Wald Hypothesis Test (F-test)

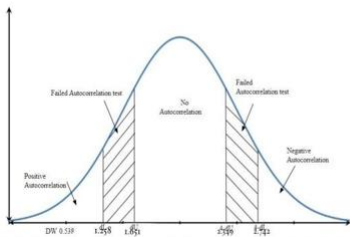
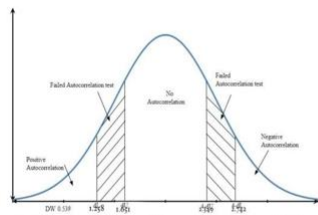
| Model | Hypothesis | Statistical Test | Critical Value | Conclusion |
|---------|---|------------------|---|--|
| Model 1 | $H_0 : \beta_i = 0$ $H_1 : \beta_i \neq 0$ | $F^* = 1479.47$ | $F = F_{\alpha, V_1, V_2}$ $F = F_{0.05, 3, 29}$ $F = 2.92$ | Reject H_0 at $\alpha = 0.05$, $F^* = 1479.471$ $2.92 > F$, $1479.471 > 2.92$, hence reject H_0 . All parameters used to estimate the dependent variables are significant at 95% Significance level. |

Diagnostic Analysis

Tables 5 to 8 simplify the diagnostic findings for the study. The analysis output including Heteroscedasticity, autocorrelation and multicollinearity.

Autocorrelation

Table 5: Durbin Watson (DW) Test Results First Model

| Level of Significance | DW | N | K | K' | dL | dU | 4 - dU | 4 - dL | Result |
|-----------------------|-------|----|---|----|-------|-------|-------------------|-------------------|--|
| 1% | 0.538 | 33 | 4 | 3 | 1.055 | 1.432 | 4 - 1.432 = 2.568 | 4 - 1.055 = 2.945 |  <p>There occurs a positive autocorrelation problem at 99% significance level.</p> |
| 5% | 0.538 | 33 | 4 | 3 | 1.258 | 1.651 | 4 - 1.651 = 2.349 | 4 - 1.258 = 2.742 |  <p>There occurs a positive autocorrelation problem at 95% significance level.</p> |

Heteroscedasticity

Estimation Model:

$$\text{REAL GDP} = -9.531 + 0.243R_x + 1.711 \text{LF} + 0.022 \text{FDI}$$

SE = (0.443) (0.040)*** (0.081)*** (0.010)**

t* = (-21.493) (6.127) (21.011) (2.171)

F* = 1479.471

R² = 0.994

Park Model:

$$\ln \mu = -3.895 - 0.067R_x + 0.842\text{LF} - 0.028\text{FDI}$$

Se = (1.085) (0.097) (0.199) (0.025)

t* = (-3.591) (-0.695) (4.228) (-1.129)**

R² = 0.718

Table 6: The Park Test Result

| Independent Value | Hypothesis | Statistical Test | Critical Value | Result |
|--------------------------------|--|-----------------------------|--|---|
| REAL EXPORT(RX) | H_0 :Homoscedasticity H_1 :Heteroscedasticity | t*=-0.067/0.097 = -0.695 | t = (a/ 2, N-K) = (0.05/2,33-4) = 0.025, 29 = 2.045 | -0.695 < 2.045 at 5% significance level, the result suggests accepting H_0 . ∴ Heteroscedasticity |
| LABOR FORCE(LF) | H_0 :Homoscedasticity H_1 :Heteroscedasticity | t*=-0.842/0.1999 = 4.228 | t = (a/ 2, N-K) = (0.05/2,33-4) = 0.025, 29 = 2.045 | 4.228 > 2.045 at a 5% significance level,the result suggests reject H_0 . ∴ Heteroscedasticity |
| FOREIGN DIRECT INVESTMENT(FDI) | H_0 :Homoscedasticity H_1 :Heteroscedasticity | t*=-0.028/0.025 = -1.129 | t = (a/ 2, N-K) = (0.05/2,33-4) = 0.025, 29 = 2.045 | -1.129 < 2.045 at 5% significance level, the result suggests accept H_0 . ∴ No Heteroscedasticity |

If the significant value > 0.05, there is no Heteroscedasticity problem
If the significant value < 0.05, there is Heteroscedasticity problem.

Table 6 shows the independent variables such as real export to GDP, foreign direct investment to GDP are not significant, in which the statistical value is smaller than the critical value. Hence, the H_0 is accepted, in other words, there is no heteroscedasticity in the model, the results of the hypothesis test can be applied. Meanwhile, the labor force to GDP shows that the statistical value is greater than the critical value. Hence, the H_0 is rejected, which means that the model exists heteroscedasticity problem.

Multicollinearity

There are 2 approaches to analyze this diagnostic test. To ascertain if the data is Multicollinearity, a test based on Pearson's correlation coefficient must be performed. The Pearson correlation and determinant coefficient values must be known to assess whether there is an imperfect multicollinearity problem ($R^2 > \text{Corr}(X_1, X_2)$) or even a perfect multicollinearity problem ($R^2 > \text{Corr}(X_1, X_2)$). Tables 7 and 8 represent the outcome namely the Variance Inflation Factor (VIF) and Correlation VS R- square methods to multicollinearity.

Approach 1: Variance Inflation Factor (VIF) approach

- 1 = Not correlation
- Less than 10 = not serious multicollinearity problem
- Greater than 10 = serious multicollinearity problem

Table 7: Variance Inflation Factor (VIF) Approach

| Independent Variables | Statistical values (VIF) | Rule of thumb | Conclusion |
|--------------------------------|--------------------------|---------------|---|
| Real export (RX) | 5.680 | > 5 and <10 | Therefore, the VIF for RX is 5.680, hence, no serious multicollinearity <u>problem</u> because the VIF is less than 10. |
| Labor force (LF) | 6.162 | > 5 and <10 | Therefore, the VIF for LF is 6.162, hence, no serious multicollinearity <u>problem</u> because the VIF is less than 10. |
| Foreign direct investment(FDI) | 1.223 | > 1 and < 5 | Therefore, the VIF for FDI is 1.223, hence, no serious multicollinearity problem because the VIF is less than 10. |

Approach 2: Correlation vs R²

The results for the second approach to test the multicollinearity is as Table 8.

Table 8: Correlation VS R-square Approach

| <u>Correlation Variables Combination</u> | <u>Correlation Results</u> | <u>Sign notation (< or >)</u> | <u>R square value from multiple regression results</u> | <u>Conclusion</u> |
|--|----------------------------|-------------------------------------|--|---|
| Corr (RX,LF) | 0.905 | < | 0.994 | ∴ R ² > Corr (RX, LF), hence multicollinearity problem exists and but not serious. |
| Corr (RX,FDI) | 0.297 | < | 0.994 | ∴ R ² > Corr (RX, FDI), hence multicollinearity problem exists and but not serious. |
| Corr (LF,FDI) | 0.399 | < | 0.994 | ∴ R ² > Corr (LF, FDI), Hence <u>multicollinearity problem</u> exists but not serious. |

The value of the determinant coefficient is equivalent to 0.994 (R² = 0.994) based on table 8 above. The multicollinearity issue was tested using the correlation versus R- squared method, and table 8 of the Correlation Pearson values between independent variables showed three different combinations. Based on the findings, all correlations of different combinations indicate that there is a minor multicollinearity issue that is not serious in the calculated model.

CONCLUSION

The purpose of this study was to ascertain the connection between real export, labor force, foreign direct investment and real GDP in Malaysia during a 33-year period beginning in 1990 and ending in 2022. The unit root characteristics of the data were investigated and determined by using the SPSS Statistics. The ordinary least square (OLS) approach was used in the study to estimate a multiple regression equation. The findings generally imply that all of the independent variables in this study are significant in impacting Malaysia's real Gross Domestic Product. According to Emilda Hashim et al. (2019), the Malaysian government should diversify

exports, simplify the export procedures, improve the industry, as well as boosting the quality, productivity, and competitiveness of the products in global markets. As a result, export productivity will have a positive impact on economic growth. Understanding the association and direction of causality between FDI and GDP is vital for formulating policies to encourage investment in a country. Besides, the government should ensure that the supply of well-equipped labor is enough because this would stimulate economic growth. Moreover, the government should attract foreign direct investment into the country to accelerate the economic growth. According to the researcher by Mangindalat & Olli, (2024) by expanding the variable set for further research is counselled. Subsequent research endeavors ought to intend the integration of pertinent variables beyond labor force, foreign direct investment, to furnish a more all-encompassing evaluation of the elements propelling GDP expansion. Researchers should look at the various forms of FDI such as greenfield, mergers, and acquisitions and trade flows such as exports vs. imports, by sector to comprehend the subtleties of how these factors affect economic growth. They should also dissect FDI and trade data.

ACKNOWLEDGEMENT

This research was conducted under the Fundamental Research Grants Scheme (FRGS) (FRGS/1/2020/SS0/UPSI/02/18) research code 2020-0216-106-02 of the Ministry of Higher Education, Malaysia. The authors would like to thank *Universiti Pendidikan Sultan Idris* (UPSI) for assisting in the administration of the grants.

REFERENCES

- Alfaro, L., & School, H. B. (2003). Foreign Direct Investment and Growth: Does the Sector Matter?
https://www.researchgate.net/publication/228966060_Foreign_Direct_Investmentand_Growth_does_the_sector_matter
- Agyapong, Daniel, and Kojo Asare Bedjabeng. 2020. External Debt Stock, Foreign Direct Investment and Financial Development: Evidence from African Economies. *Journal of Asian Business and Economic Studies* 27: 81–98.
- Auzina-Emsina, A. (2014). Labor productivity, economic growth and global competitiveness in postcrisis period. *Procedia - Social and Behavioral Sciences*, 156(April), 317–321.
<https://doi.org/10.1016/j.sbspro.2014.11.195>
- Belloumi, Mounir, and Atef Alshehry. 2018. The Impacts of Domestic and Foreign Direct Investments on Economic Growth in Saudi Arabia. *Economies* 6: 18.
- Emilda Hashim, Norimah Rambeli, Asmawi Hashim, Norasibah Abdul Jalil, Shahrudin Nizam Abdul Aziz1, & Noor Al Huda Abdul Karim. (2019). Dynamic Relationship Between Real Export, Real Import, Real Exchange Rate, Labor Force and Real Gross Domestic Product in Malaysia. *Research in World Economy*, 10(5), 20-29.
<https://doi.org/10.5430/rwe.v10n5p20>
- Galbraith, J. K. (1994). *A Short History of Financial Euphoria*. United States: Penguin Publishing Group.

- Galbraith, J. K. (2012). *Inequality and instability: A study of the world economy just before the great crisis*. Oxford University Press.
- Gokmen, Aytaç, and Dilek Temiz. 2010. "An Analysis of the Export and Economic Growth in Turkey over the Period of 1950-2009." *Uluslararası İktisadi Ve İdari İncelemeler Dergisi* (5). <https://www.ajindex.com/dosyalar/makale/acarindex-1423936296.pdf>.
- Hashim, E., Rambeli, N., Hashim, A., Jalil, N. A., Aziz, S. N. A., & Karim, N. A. H. A. (2019). Dynamic relationship between real export, real import, real exchange rate, labor force and real gross domestic product in Malaysia. *Research in World Economy*, 10(5), 20–29. <https://doi.org/10.5430/rwe.v10n5p20>.
- Kraay, A. Methodology for a World Bank Human Capital Index. Policy Res. Work. Pap. 2018. Available online: <https://openknowledge.worldbank.org/handle/10986/30466> (accessed on 14 September 2021).
- Majeed, M., Tariq, A., & Ahmad, E. (n.d.). Human Capital Development and FDI in Developing Countries Human Capital Development and FDI in Developing Countries. https://mpira.ub.uni-muenchen.de/57514/1/MPRA_paper_35454.pdf.
- Mangindalat, R., & Oliy, R. (2024). Foreign Direct Investment and its Influence on International Trade of the Economic Growth of the Philippines. *Journal of Business Technology and Economics*, 1(2), 67-78.
- Marelli, E., & Pastore, F. (2010). Labor, productivity and growth: an introductory essay. *International Journal of Manpower*, 31(7), 701–712. <https://doi.org/10.1108/01437721011081554>
- Olorogun, Lukman, Monsurat Ayojimi Salami, and Festus Victor Bekun. 2020. Revisiting the Nexus between FDI, financial development and economic growth: Empirical evidence from Nigeria. *Journal of Public Affairs* 2020: e2561
- Rambeli, N., Ramli, B., Hashim, E., Affizah, D., & Marikan, A. (2016). Relationship Between Education Expenditure, Capital, Labor Force and Economic Growth in Malaysia. In *International Journal of Academic Research in Business and Social Sciences* (Vol. 6, Issue 12). www.hrmars.com/journals
- Shaari, M. S. Bin, Hong, T. H., & Shukeri, S. N. (2012). Foreign Direct Investment and Economic Growth: Evidence from Malaysia. *International Business Research*, 5(10).
- Salike, N. (2016). Role of human capital on regional distribution of FDI in China: New evidences. *China Economic Review*, 37(1),66–84.
- Shafiullah, M., & Navaratnam, R. (2016). Do Bangladesh and Sri Lanka Enjoy Export-Led Growth? A Comparison of Two Small South Asian Economies. *South Asia Economic Journal*, 17(1), 114–132.
- Tariq, R., Khan, M. A., & Rahman, A. (2020). How does financial development impact economic growth in Pakistan? New evidence from threshold model. *Journal of Asian Finance, Economics and Business*, 7(8), 161–173. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO8.161>
- Thi, N., & Nga, V. (2019). Foreign Direct Investment, Openness and Economic Growth in Developing Countries – The case of Vietnam. *European Journal of Social Sciences*,58(3), 259–266.
- Ullah, Safi, and Muhammad Tahir. 2022. Determinants of foreign investment in Pakistan. *South Asian Journal of Business Studies* 11: 67–81.

Turkcan, Burcu, Alper Duman, and I. Hakan Yetkiner. 2008. How Does FDI and Economic Growth Affect Each Other? The OECD Case. In *International Conference on Emerging Economic Issues in a Globalizing World*. Izmir: UNCTAD, pp. 21–40. Available online: <http://eco.ieu.edu.tr/wp-content/proceedings/2008/> (accessed on 20 April 2022).