The Role Of Globalisation in Improving Human Development in Malaysia
(Peranan Globalisasi dalam Meningkatkan Pembangunan Masyarakat di Malaysia)

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ABSTRACT

This paper examines the impact of globalisation on the level of human development in Malaysia. It also investigates the roles of other potential determinants of human development such as foreign direct investment (FDI), trade openness and international migration on Human Development Index (HDI) in Malaysia. We employ the method of Auto-Regressive Distributed Lag (ARDL) on the annual time series data covering the period from 1980 to 2017. The results confirm a positive and significant long run relationship between globalisation and FDI with HDI in Malaysia. However, the results imply a negative short and long run relationship of both trade openness and international migration with HDI. Therefore, the results suggest for policies to be focused and geared towards fostering globalisation and attracting the inflows of FDI if the country’s main agenda is to improve the level of human development.

Keywords: Globalisation; Human development; Auto-Regressive Distributed Lag; Malaysia

INTRODUCTION

In the early days, Malaysia was heavily reliant on the agricultural industry where the focus was mainly on primary products such as paddy, rubber, and tin. Over the years, we have witnessed an industrial revolution resulting in a transition from agriculture to the manufacturing industry. This has played a key part in fostering globalisation in the country. The creation of Multimedia Super Corridor (MSC) has succeeded in accelerating the achievement of objectives of Vision 2020 and transforming Malaysia into the information and communication technology (ICT) based country. Besides, this has also encouraged Foreign Direct Investment (FDI) into the country. For instance, based on the data from the Malaysian Investment Performance Report 2017 published by the Malaysian Investment Development Authority (MIDA 2017), organisations from China, Switzerland, Singapore, Germany, and the Netherlands were the majority investors for about...
Globalisation is not a new phenomenon as people have been interacting worldwide since the early 1980s. In general, Hebron and Stack (2016) defined globalisation as a process that involves internationally from interaction and integration between different nations around the world that operates over many centuries as aided by some activities such as a foreign investment, technology utilization, trade openness, international migration and so on that have taken place throughout world history.

According to Bhagwati (2004) and Moore (2001), globalisation has made the world a better place, and this has contributed to economic prosperity, political freedom, and world peace. It can be a powerful and dynamic force for growth and development. If it is appropriately managed, the foundations for enduring equitable growth at the international level can be laid. Globalisation is not a new phenomenon as people have been interacting worldwide since the early 1980s. In general, Hebron and Stack (2016) defined globalisation as a process that involves internationally from interaction and integration between different nations around the world that operates over many centuries as aided by some activities such as a foreign investment, technology utilization, trade openness, international migration and so on that have taken place throughout world history.

Micklethwait and Wooldridge (2001) claim that choices are the essence of globalisation. It enables individuals to have more choices in living their lives as they wish. In a way, this means better or higher quality in terms of life satisfaction. In this context, some previous studies used the Human Development Index (HDI) instead of the Gross Domestic Product (GDP) as the indicator to measure individual’s life performance in relation to globalisation. The United Nations Development Programme (1990) emphasises the importance of expanding the richness of human life, rather than the economy. Human development can be measured by using life expectancy at birth, average, and expected years of schooling and gross national per capita income. The values of HDI are standardized between 0 and 1. The cut-off points for HDI are; HDI of 0.800 or greater for very high human development, 0.700-0.799 for high human development, 0.550-0.699 for medium human development and less than 0.550 for low human development. Indeed, HDI is a relevant alternative to measure various aspects of the nations’ performances.

According to Costa and Steckel (1997), a better analysis of the economy can be obtained by using HDI because it highlights the trend between longevity, education, and economic growth. Sen (1997) also emphasises that GDP per capita does not focus on other factors of economy that defines human well-being. For instance, certain harmful activities could be the reason of positive contribution towards GDP of the country such as deforestation activity, oil extraction, and mining, but they can also cause harm to humans and the environment. Environmental threats such as water pollution can cause death and influence human development negatively. Thus, human development is necessary to be set as the fundamental pillars and core considerations of a country’s level of development.

![Figure 1: The Human Development in Malaysia (1980-2017)](source: The Global Economy.com, The United Nations)
Figure 1 shows that the trend of human development in Malaysia from 1980-2017 that is rapidly increasing. This is mainly driven by the policies implemented by the government that encourages activities and programmes that can foster globalisation in an attempt to curb poverty and increase the standard of living. Indeed, Samimi and Jenatabadi (2014) mentioned that globalisation is one of the significant contributions to the economic and development growth as well as promoting human development. On top of that, Malaysia manages to secure a significant growth momentum. This can be proven when Malaysia’s life expectancy at birth has increased by 4.8 years. Then, the mean years of schooling have also increased. Between 1990-2017, Malaysia’s GNI per capita shows an increase of 156.7%.

However, some studies, for instance, Lindert and Williamson (2003) and Borghesi (2003) have documented adverse impacts of globalisation, such as the increase in income inequality and environmental degradation, respectively. According to Marchiori et al. (2013) the problems include a drastic increase in competition for global talents which has resulted in wide income gaps between the skilled and the low-skilled workers. Hence, globalisation has inevitably exposed the country to an increase in the unemployment rate, and it has also widened the income gaps. Besides, it causes the spread of deadly diseases such as AIDS or other communicable diseases that might affect health condition and quality of life.

By right, globalisation should be one of the prominent keys towards enhancing human development, especially in the case of developing countries like Malaysia. Most research has been focused on the subject of economic growth and yet the findings on globalisation and growth nexus are still mixed and inconclusive. As mentioned before, it would be more meaningful if we could provide an in-depth study from a different perspective of individual country’s performance, that is by looking at people’s developments from important aspects of life. Moreover, the role and impact of globalisation on human development is deemed vital in the current pace of the modernisation. Hence, building on this argument, the motivation of this research is to investigate whether globalisation plays a role in the improvement of the level of human development alongside other potential determinants such as FDI, trade openness and international migration for the case of Malaysia.

**LITERATURE REVIEW**

Some studies have suggested significant relationship between globalisation and human development. In this context, Sirgy et al. (2004) have built a theoretical linkage between globalisation and human development. They emphasised the importance of the link between globalisation quality of life (QOL). Globalisation, as defined by Sirgy et al. (2004) is “the diffusion of goods, services, capital, technology, and people (workers) across national borders”. Tsai (2007) proposed empirical testing on some linkages, and he concluded that globalisation might have both positive and negative consequences. Subsequently, Figueroa (2014) stated that globalisation could be measured from different aspects such as economic, social and political, and the impacts of globalisation may differ according to these aspects of measurement. Besides, the impacts may also differ based on the specific area of examination of human development and institutional quality of the country. In this respect, Stiglitz (2006) also added that success in development means “sustainable, equitable, and democratic development that focuses on increasing living standards, not just on measured GDP”.

Asongu et al. (2017) stated that globalisation positively affects inclusive human development and the benefits are higher in countries with high initial levels of inclusive development. Lall et al. (2007) presented two different views on globalisation. Firstly, globalisation brings about benefits in terms of growth and improvements in many aspects. For instance, Thorbecke and Eigen-Zucchi (2002) justified that there is a positive impact of globalisation on Quality of life (QOL). Debrah et al. (2000) also found that globalisation has strengthened the East Asia regional economic co-operation and promoted economic growth. Hence, Sirgy et al. (2004) hypothesised that globalisation creates jobs opportunity, increases wage level, and produces purchasing power. The second view is not entirely in line with the first one in which it states that globalisation may have resulted in rising incomes for individuals and nations, but the benefits are not equally shared or distributed (Lindert & Williamson 2003; Borghesi 2003; Marchiori et al. 2013).

Some studies have suggested a negative link between FDI and host-country development leading to slow economic growth. (Campos & Kinoshita 2002; Carkovic & Levine 2005; Mencinger 2003). In contrast, studies such as Borensztein et al. (1998), Casson (2007) and Muhammad Khalid and Mazlan (2018) found positive impacts of FDI on economic growth of the host countries. Most of the times, FDI and its spillover effects will benefit the societies in the form of higher level of education, life expectancy and purchasing power. Similarly, the findings on the relationship between trade openness and growth are mixed. A positive relationship between trade openness and growth was documented by studies such Barro (1991), Dollar and Kraay (2003), Edwards (1993) and Frankel and Romer (1999) whereas studies such as Clemens and Williamson, (2001), Irwin, (2002) and O’Rourke (2000) have found an opposite sign for the relationship between the two variables. However, most of these empirical studies suffer from weak theoretical foundations, low quality of data and unsuitable techniques of estimation. Detailed studies of individual countries are mostly relevant to gauge a deep understanding of the impact of trade openness and economic growth. As for the international migration, empirical evidence
of the importance of remittance in enabling human development at different levels in the society was presented by Edwards and Ureta (2003) and Orozco (2000). To further understand the relationship between international migration and human development, especially in the long run, rigorous data and research are needed by conducting a cross-sectional analysis (Maimbo et al. 2005).

DATA AND METHODOLOGY

In order to examine the relationship between globalisation and human development in Malaysia, we utilised the annual time series data from 1980 to 2017. The following equation model is adapted from the study by Sapkota (2011), constructed as follows:

$$
HDI_t = \alpha + \beta_1 LICIT_t + \beta_2 FDI_t + \beta_3 TRADE_t + \beta_4 REMT_t + \epsilon_t \quad (1)
$$

In this model, Human Development Index (HDI) is a function of Foreign Direct Investment (FDI), trade openness (TRADE), international migration (REMT) and mobile cellular subscriptions (ICT). The data for this study were obtained from the World Development Indicators (WDI) over the period from 1980 to 2017. Table 1 provides the summary statistics of the variables used in the study.

<table>
<thead>
<tr>
<th>TABLE 1. Summary statistics of data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Human Development Index (HDI)</td>
</tr>
<tr>
<td>Mobile subscriptions (LICT) USD</td>
</tr>
<tr>
<td>Trade Openness in Malaysia (TRADE)</td>
</tr>
<tr>
<td>% of GDP</td>
</tr>
<tr>
<td>Foreign Direct Investment (FDI)</td>
</tr>
<tr>
<td>% of GDP</td>
</tr>
<tr>
<td>International migration (REMT)</td>
</tr>
<tr>
<td>% of GDP</td>
</tr>
</tbody>
</table>

In this model, HDI is the dependent variable. Meanwhile, the other independent variables were chosen based on the significant elements of globalisation implied from most previous studies such as studies from Sapkota (2011), Solarin and Eric (2015), Naem and Arzu (2017) and Muhammad et al. (2010). The only variable that was converted to natural logarithm is ICT. This is to normalise the data by reducing the dispersion of data with the high standard deviation. For those presented in the form of index or percentage, we used the non-logarithm version of these variables.

In this study, the following methodological procedures were adopted to test the time series analysis. The technique used in this paper is Autoregressive Regressive Distributed of Lag (ARDL) in cointegration. ARDL procedure was introduced by Pesaran et al. (2001). This technique is the possible way to test for association of cointegrating between the variables. Hence, it can also be used to specify the existence of long run relationship among variables in the model. The ARDL bound test approach can be derived as follows:

$$
\Delta HDI_t = a_0 + \sum_{i=1}^{p} \varphi_i \Delta HDI_{t-i} + \sum_{i=0}^{p} \varphi_i LICT_{t-i} + \sum_{i=0}^{p} \lambda_i FDI_{t-i} + \sum_{i=0}^{p} \varphi_i TRADE_{t-i} + \sum_{i=0}^{p} \varphi_i REMT_{t-i} + \epsilon_t
$$

$$
\Delta\Delta HDI_t = a_0 + \sum_{i=1}^{p} \gamma_i REMT_{t-i} + \delta_1 HDI_{t-i} + \delta_2 LICIT_{t-i} + \delta_3 FDI_{t-i} + \delta_4 TRADE_{t-i} + \delta_5 REMT_{t-i} + \epsilon_t
$$

Based on Gujarati and Porter (2009), the series needs to be stationary to avoid any inconsistency in estimation of coefficient. Therefore, Augmented Dickey Fuller (ADF) test and Phillips-Perron (PP) test will be used to identify the presence of unit root. The tests were conducted at the level and first difference using the ADF and the PP tests. The hypotheses for the unit root tests are as follows:

H₀: The series contains unit root i.e. non-stationary
H₁: The series does not contain unit root i.e. stationary
There are conditions that need to be fulfilled by the variables. The conditions are that the variables have to be stationary at order 0 and/or i.e. I(0) and/or I(1), but not I(2). Then, to test the reliability of ARDL model, a series of statically diagnostic checks were conducted which consists of Breusch-Godfrey Serial Correlation LM to check the presence of correlation in the error term of regression model, Heteroskedasticity test, and test for normality.

RESULTS AND DISCUSSION

Before estimating the model of ARDL and performing the bounds test, all the variables must be stationary. Thus, the necessary test, namely ADF and PP were conducted to ensure that these variables have met all the requirements needed. Table 2 shows the results of ADF and PP tests for all five variables:

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDI</td>
<td>-1.7412 (0.4029)</td>
<td>-1.7412 (0.4029)</td>
</tr>
<tr>
<td>LICIT</td>
<td>-3.8068 (0.0073)**</td>
<td>-6.6262 (0.0000) ***</td>
</tr>
<tr>
<td>FDI</td>
<td>-2.9530 (0.0490)**</td>
<td>-3.0090 (0.0433) **</td>
</tr>
<tr>
<td>TRADE</td>
<td>-0.1701 (0.6172)</td>
<td>-1.2907 (0.6236)</td>
</tr>
<tr>
<td>REMT</td>
<td>-1.8805 (0.3374)</td>
<td>-1.7504 (0.3984)</td>
</tr>
<tr>
<td>1ST Difference</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDI</td>
<td>-6.6485 (0.0000) ***</td>
<td>-6.6425 (0.0000) ***</td>
</tr>
<tr>
<td>LICIT</td>
<td>-5.6639 (0.0004)***</td>
<td>-9.9285 (0.0000)***</td>
</tr>
<tr>
<td>FDI</td>
<td>-5.4248 (0.0001) ***</td>
<td>-6.6766 (0.0000) ***</td>
</tr>
<tr>
<td>TRADE</td>
<td>-3.6465 (0.0405)**</td>
<td>-4.0350 (0.0035)***</td>
</tr>
<tr>
<td>REMT</td>
<td>-4.3223 (0.0016)***</td>
<td>-4.3079 (0.0017)***</td>
</tr>
</tbody>
</table>

Note: *, **, and *** denotes a rejection of the null hypothesis at the 10%, 5% and 1% significance levels.

The variables HDI, TRADE, and REMT were found stationary results only at the first difference i.e. I(1). Meanwhile, LICIT and FDI were found stationary at level for both tests of ADF and PP i.e. I(0). The mixture of I(0) and I(1) variables indicate that the estimation method of ARDL is appropriate for this study.

Next, the bounds test developed by Pesaran et al. (2001) was performed to analyse the long run relationship between HDI and LICIT as well as other control variables; FDI, TRADE AND REMT. To interpret the results of bounds test, we used the asymptotic critical values of Narayan (2005). When the estimated value of F-statistic is higher than the upper bound and/or lower bound at a specified significance value, we can reject the formulated null hypothesis of no long run relationship and therefore, the long run relationship is statistically significant. Table 3 presents the results of ARDL bounds test. Based on the results obtained, the F-statistic for a sample of 37 observations is higher than the upper bound critical values at 10%, 5% and 1% significance levels. Thus, we can reject the null hypothesis and conclude that the long term relationship exists between the variables of interest.

<table>
<thead>
<tr>
<th>Significance value</th>
<th>Critical value</th>
<th>F-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
</tr>
<tr>
<td>1%</td>
<td>3.74</td>
<td>5.06</td>
</tr>
<tr>
<td>5%</td>
<td>2.86</td>
<td>4.01</td>
</tr>
<tr>
<td>10%</td>
<td>2.45</td>
<td>3.52</td>
</tr>
</tbody>
</table>

In Table 4, we present the results of long run estimation. LICIT and FDI have a significant positive relationship with HDI in the long run at 1% and 10% significance levels, respectively. A 1% increase in ICT will cause the increase in human development by 0.0155 points in the long run. This suggests ICT as a proxy of globalisation is an important factor for human development in Malaysia. On the other hand, a 1% increase in FDI, which is measures as a percentage of GDP will result in an increase of 0.0011 points in human development. The possible benefits from FDI include technology transfer, increased production efficiency, and quality improvement. These attributes positively influence the components of HDI. Conversely, a 1% increase in TRADE and REMT will lead to a decrease of 0.0002 and 0.0602 points in human development in the long run, respectively. These findings are in line with the studies conducted by White & Anderson.
The study by Chami et al. (2005) revealed a negative relationship and suggested that remittances may not be a source of capital for economic development.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T-Statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LICICT</td>
<td>0.0155</td>
<td>0.0034</td>
<td>4.5659</td>
<td>0.0002</td>
</tr>
<tr>
<td>FDI</td>
<td>0.0011</td>
<td>0.0016</td>
<td>0.7167</td>
<td>0.4566</td>
</tr>
<tr>
<td>TRADE</td>
<td>-0.0002</td>
<td>0.0001</td>
<td>-2.1696</td>
<td>0.0429</td>
</tr>
<tr>
<td>REMT</td>
<td>-0.0602</td>
<td>0.0140</td>
<td>-4.3072</td>
<td>0.0004</td>
</tr>
</tbody>
</table>

Table 5 shows the empirical results of the short run relationship from the estimation of ARDL model. Based on the results, the error correction mechanism (ECM) indicated by CointEG(-1) is negative and statistically significant for the estimated variables. The coefficient value of -0.36 indicates that the speed of adjustment from disequilibrium in the short run to equilibrium in the long run is about 36%. In addition, ICT and FDI have a positive and statistically significant relationship with human development, whereas the other two variables, REMT as the proxy of international migration and TRADE have significantly negative relationship with human development in the short run in Malaysia. For further explanation, a 1% increase in ICT and FDI, measured as percents of GDP will cause human development to increase by 0.0215 and 0.0004 points, respectively. Contrastingly, a 1% increase in TRADE, measured as percentage of GDP will reduce human development by 0.0003 points whereas a 1% increase in REMT, also measured as percentage of GDP will reduce human development by 0.0385 points. The short and long run findings are rather consistent with each other. Both indicate significantly positive relationship of ICT and FDI with human development.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>T-statistic</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LICICT</td>
<td>0.0215</td>
<td>0.0051</td>
<td>-4.2317</td>
<td>0.0005</td>
</tr>
<tr>
<td>FDI</td>
<td>0.0004</td>
<td>0.0005</td>
<td>0.8397</td>
<td>0.4115</td>
</tr>
<tr>
<td>TRADE</td>
<td>-0.0003</td>
<td>0.0001</td>
<td>-2.0700</td>
<td>0.0523</td>
</tr>
<tr>
<td>REMT</td>
<td>-0.0385</td>
<td>0.0090</td>
<td>-4.2598</td>
<td>0.0004</td>
</tr>
<tr>
<td>CointEG(-1)</td>
<td>-0.3670</td>
<td>0.1183</td>
<td>-3.1025</td>
<td>0.0059</td>
</tr>
</tbody>
</table>

The diagnostic tests were performed to check for the presence of problems such as heteroskedasticity, serial correlation and abnormality of the residuals. The results are shown in Table 6 below. Our estimation model was proved to be free from the problem of heteroskedasticity since the p-value is 0.9900, which is higher than the significance value 0.05. Hence, there is no evidence to reject the null hypothesis of no heteroskedasticity at 5% of significance level. Furthermore, the p-value for serial correlation LM test is 0.7085, which is higher than 5% significance level. Again, we cannot reject the null hypothesis of no serial correlation in this model. Moreover, Jarque-Bera normality test also indicates that the residuals are normal where the p-value obtained is more than 5%, suggesting that we cannot reject the null hypothesis that residuals are normally distributed. Therefore, we can conclude that our estimation is free from all the problems stated above, suggesting that our results are reliable.

<table>
<thead>
<tr>
<th>Test</th>
<th>F-statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heteroskedasticity</td>
<td>0.5571</td>
<td>0.9900</td>
</tr>
<tr>
<td>Serial Correlation</td>
<td>0.1999</td>
<td>0.7085</td>
</tr>
<tr>
<td>Normality Test</td>
<td>0.0245</td>
<td>0.9878</td>
</tr>
</tbody>
</table>

Besides, stability test has also been carried out to determine the constancy and stability of our estimated ARDL model. Here, the cumulative sum of recursive (CUSUM) test and cumulative sum of square of recursive residuals (CUSUMSQ) tests were presented in Figure 1 and Figure 2, respectively. Based on the CUSUM graph, it shows that the model is stable. The reason is that the CUSUM lines fall in-between the two 5% significance lines.
CONCLUSION AND RECOMMENDATIONS

By using the modelling technique of ARDL, we found ICT (as the proxy of globalisation) and FDI to be statistically significant and positively related to the level of human development in Malaysia both in the short run and long run. However, the results of the relationship between trade openness and international migration with the level of human development had indicated otherwise. They were found to be negatively related both in the short and long run. These findings were robust in which all the diagnostic and stability tests were passed at 5% level of significance. Indeed, globalisation is and recognised as an important factor not only in promoting and boosting the economic growth, but also human development. ICT, as the proxy for globalisation in our study is the most comprehensive and brilliant mechanism to enhance people’s sense of empowerment and open up wider opportunities. Besides, our study also showed that FDI is an essential element in improving the human development in Malaysia. FDI creates job opportunities and enhances knowledge spillover which is vital for economic growth and human development (Oketch 2006; Noorbakhsh et al. 2001).
Hence, a well-functioning financial system, realistic policy implementation, and sustainable economic growth should be carried out in order to make Malaysia a preferred place among foreign investors to invest. On the contrary, we obtained a negative relationship between trade openness and international migration with human development in short run and long run.

Hence, the Malaysian government should consider establishing a fundamental plan of framework which can expand the maximum gain from globalisation and FDI to promote human development. This is to ensure that all people regardless of demographic and social background enjoy the prosperity. The policy-makers should also pay a close attention in addressing the main factors of emigration. With higher institutional quality in this country, this can reduce international migration and thus improve the level of human development in Malaysia. An improvement in the current policy trade and tax incentives is also essential considering their significant effects on economic growth and human developments.

NOTE

1. MITI Weekly Bulletin 2018 Volume 466 – 02 January 2018

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