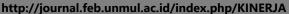# Impacts of immigrants to gdp in malaysia: manufacturing, construction, services and agriculture

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Abstract

International migration had occurred since World War II and this global phenomenon keep growing in number especially in South East Asia countries. International migration usually occurred as a labor migration. Father of Economics, Adam Smith, describes labor migration as due to the imbalance in the labor market at different locations. Malaysia is a developing country in South East Asia that received thousands even millions of immigrants from Indonesia, Nepal, Bangladesh, Thailand, Philippines and Myanmar. These immigrants are filling the gap as low-skilled labors in sectors such as construction, manufacturing, and industrial. This paper aims to study and analyses the impacts of immigrants in different home countries to the host country, Malaysia in the context of gross domestic product (GDP). Does the migrants from different home countries giving impact to the GDP of Malaysia? In achieving the aim of the paper, authors used total GDP of Malaysia as dependent variable and number of immigrants in manufacturing, construction, service and agriculture as output. Data in this paper contained the number of immigrants in Bangladesh, Indonesia, Nepal and Myanmar segregated by their sector from 2013-2016. Authors used STATA 12 to regress the panel data and from the regression, authors obtained the significant effect of immigrants of manufacturing, services, and agriculture on GDP of Malaysia. Meanwhile, immigrants of construction and housemaid have insignificant effect on GDP of Malaysia. Hence, hiring immigrants from Bangladesh, Indonesia, Nepal and Myanmar will only benefits Malaysia if the immigrants work on sectors such as services and agriculture.

Keywords: Immigrants; gdp; manufacturing; construction; service; agriculture; housemaid

INTRODUCTION

Malaysia has rapidly expanding economy, increasing development and producing more high-skilled workforce causing the low-skilled sector to be in vacant. Hence, Malaysia had force to fill the shortages of low-skilled worker with immigrants from other countries. According to the Malaysia Economic Monitor 2015, Malaysia has the fourth largest number of immigrants and the seventh highest ratio of migrants to total population in East Asia Pacific, World Bank (2015).

Immigrants labor make up 20% of the total workforce in Malaysia, where majority comes from Indonesia, Bangladesh, Thailand, Myanmar and Philippines, Marwan (2011), The total number of migrants in Malaysia is 2.07 million in 2015 according to the Department Of Statistics Malaysia, Marwan (2011). This figure is greater than population of Botswana (2.03 million) and half of the population of New Zealand (4.55 million). According to the report on number of migrant's labor in 2015 from Ministry of Home Affairs in Malaysia, Table 1 shows percentage accounts for the immigrants based on their country of origin. Since 1980's until now, Indonesia is still the country with the highest number of immigrants. After the introduction of Wawasan 2020 by former Prime Minister of Malaysia, Tun Dr. Mahathir Mohammad, Malaysia accepted immigrants from Nepal, Bangladesh, Myanmar, India, Pakistan, Philippines, Thailand and others to meet the labor market demand.

Table 1. Percentage of immigrants based on sector

Country of origin	Percentages of Immigrants
Indonesia	39.2%
Nepal	23.5%
Bangladesh	13.2 %
Myanmar	6.8%
India	6.5%
Pakistan	3.4%
Philippines	3.0%
Thailand	0.6%
Others	3.6%
Total	100%

This paper aims to observe and analyses the impact of migration among foreign labor to the Malaysia's economy specifically on the share of core economic indicator, Gross Domestic Product (GDP). This paper will investigate the relationship between the GDP of Malaysia and number of immigrants on five important sectors namely manufacturing, construction, service, agriculture and housemaid. This study based on data of immigrants from Bangladesh, Indonesia, Nepal and Myanmar. Other than that, authors aim to study the significance of immigrants to the sector based on the results of regression. On the last section, this paper elaborates on the government policies made to strengthen the relationship of host and home country.

Literature review

Mete (2005) studied the impact of immigration on economy development and unemployment in Norway. In analyzing the relationship between immigration and GDP in Norway, Mete (2005) used Granger Causality Test, Feridun (2015). Based on the Granger Causality Test, Mete (2005) discovered that when the number of immigrants is increasing, the GDP of Norway will also increase. Other than that, Mete identified that immigration has no impact on unemployment in Norway, Feridun (2015).

Peck-Leong Tan and John Gibson (2010), investigated the impacts of temporary emigration to the home country, Indonesia. They focused on the remittances of female migrants from Indonesia. Survey had been conducted to gain data for the study. From the study, they found that female migrants from Indonesia can obtain as high as five times their incomes in Indonesia, Tan & Gibson (2010). Ekrame Boubtane (2011), clarified the relationship between immigration and the economic conditions of the host countries specifically on GDP and unemployment. As the result, Ekrame Boubtane (2011), obtained that immigration does not cause host economic conditions on the decrease of GDP as impact of remittance and unemployment of local residents, Boubtane, Coulibaly, & Rault, (2013).

Impacts of immigration on Malaysia economy is currently a debatable issue as the number of immigrants in Malaysia keeps increasing year to year. Athukorala and Devadason (2011), studied the impact of immigrants on the domestic manufacturing wages. The data had been analyzed using econometric analysis of determinants of inter-industry variation in wage growth using a new panel dataset. Results of the study obtained statistically negative impact of immigrants on the real manufacturing wages, but the magnitude of the impact is small. It shows that the wage growth in manufacturing depends solely on the structure and performance of domestic manufacturing, Athukorala & Devadason, (2012).

Marwan (2011), investigates the macroeconomic impacts of immigrations in Malaysia. The studies focus on three core economic impacts which are trade, remittances and unemployment. From the study of effect of immigrants to trade in Malaysia, Marwan (2011), found that immigration increase both exports and imports through preference and immigration-link mechanism. This indicates that immigration can be a catalyzer to the trade in Malaysia. Marwan (2011) also obtained the main motives for remittance is altruism and portfolio investment from the study. The limitation of this study is that no clear evidence to support the relationship between immigrations and unemployment, Marwan (2011).

Other than that, Jamadi (2012), conducted survey on advantages and the negative impact of immigrants on the construction sector. In the study, Jamadi highlighted the advantages of hiring immigrants in the construction sector which is the cost of hiring them much cheaper than domestic labor, Jamadi (2012). Meanwhile, the negative impact of immigrants in the construction can be seen through the contamination of existing cultures. After the implementation of minimum wages, the cost of hiring labor for both domestic and foreign is the same.

The impact of immigrant's labor on the manufacturing sector had been studied by Suresh Narayanan, Migration and Development in Malaysia, (2014). The study focused on the impacts of immigrants to the al wages on the manufacturing sector, Narayanan & Lai (2015). Like the previous study from Jamadi (2012), the results obtained showed that most of employers prefer to hire immigrants due to the lower cost of hiring them compare to the domestic labor. The time frame of the study starts from 1986 to 2010. Suresh also studied the determination of inter-firm differences in wage using plant level data for 2006. Result proved that the immigrants had dampening effects on the wages of manufacturing sector as whole.

Home bias and network effect of Indonesian migrant workers on Malaysia's external trade had been studied by Fariastuti Djafar (2014). This studies aims to investigate the effect of immigrants to the Malaysia's external trade. The scope of study only covered the Indonesian migrant worker and the analysis was based on the data from 2011-2012. They found out that the Indonesian workers had no significance effect on the external trade of Malaysia. From the study, they obtained that Indonesian had least home bias effect. The results proved that Indonesian migrants are not one of the factors in determining Malaysia's external trade, Djafar & Hassan, (2014).

Rahmah Ismail (2014), in the paper of foreign labor on Malaysian Growth studied the relationship between immigrants to the output growth in short-run and long-run. This study highlighted panel data from three sectors which are manufacturing, services and construction from 1990-2010. This study not only included the low-skilled labor but also the semi-skilled labor. The method used to study the impacts is the Autoregressive Distributed Lag approach and Rahmah obtained that foreign labor on three sectors had significant positive impacts on output growth, Ismail & Yuliyusman (2014).

Other economic impact of foreign worker is the remittances of immigrants to the home country. Azam (2015), investigated the macroeconomic impact of migrant workers' remittances on economic growth in four developing countries which are Bangladesh, India, Pakistan and Sri Lanka. Approach used to study this impact is ordinary least squares and Azam (2015), discovered the positive relationship between migrant workers remittances and economic growth, Azam (2015).

Although there are many papers studies on the economic impact of immigrants in Malaysia, this paper differ with the previous study. This paper aims to identify the effect of population migrants in sectors to the GDP. Most of the previous study does not classified the immigrants on country of origin. The significance of segregating the immigrants is to identify the productivity of immigrants to the

sectors. The findings of this study are expected to guide government and policy makers to regulate the number of immigrants in sectors. Thus, it will help to maximize the productivity of immigrants in the sectors.

METHOD

A simple model is used to study the relationship between GDP and the number of immigrants in the four sectors. 3 kinds of regression Pooled OLS, Fixed Effects Model, and Random Effects model that adapted from Puron-cid (2014). This study used the panel data for number of immigrants from Bangladesh, Indonesia, Nepal and Myanmar that works in the four sectors starting from 2013 to 2016. The data obtained from Ministry of Human Resources Malaysia. With STATA 12, The Panel Regression Model is:

$$Y = \alpha + \beta_1 M + \beta_2 C + \beta_3 S + \beta_4 A + \beta_5 H + \epsilon$$

Where:
Y = GDP of Malaysia
M = Number of immigrants working in manufacturing
C = Number of immigrants working in construction
S = Number of immigrants working in services
A = Number of immigrants working in agriculture
H = Number of immigrants working in housemaid
E = error term

RESULT AND DISCUSSION

Using STATA 12, we got the regression result:

Tabel 2. Regression result of panel

Variable	Pooled OLS	Fixed Effects Model	Random Effects model
Manufacturing	-0.31407***	-0.3278044***	-0.3140789***
	-3.00	-2.56	-2.99
Construction	0.0367117	0.1590103	0.0367117
	0.82	0.93	0.71
Service	1.214778***	1.339305***	1.214778***
	3.46	2.93	3.31
Agriculture	0.3662707**	0.7069958**	0.3662707
	1.98	2.34	1.62
Housemaid	-0.8889255	-2.558534	-0.8889255
	-1.66	-1.02	-1.41

Signification Level: * for 10%, ** for 5%, *** for 1%
Adaptation from, Puron-cid (2014).

Table 2 shows the parameters estimate based on the regression of data. The Pooled OLS, Fixed Effects Model and Random Effects Model show that number of immigrants on manufacturing has negative impact on GDP of Malaysia. The t-test shows that the number of manufacturing has significant influence on GDP. The Pooled OLS, Fixed Effects Model and Random Effects Model show that number of immigrants on Service sector has positive impact on Malaysia GDP. The t-test shows that the number of immigrants on service sector has significant influence on GDP. In Agriculture sector, The Pooled OLS and Fixed Effects Model show that number of immigrants on Agriculture has positive and significant impact on Malaysia GDP. From the result, there are immigrants of two sectors that have insignificant impact on Malaysia GDP. There are immigrants that work on construction and housemaid.

Based on the result, we can see that the number of immigrants in services and agriculture gives bigger impact to the GDP of Malaysia. Therefore, these two sectors should be given critical analysis on the number of immigrants. As for manufacturing, the number of immigrants should be reduce or constant due to the negative correlation with GDP.

Meanwhile, more immigrants can be absorbed to the services and agriculture sector not only due to the positive correlation with GDP but also it gives significant influence towards the GDP. Despite giving insignificant and significant influence towards GDP of Malaysia, the number of immigrants in other sectors such as manufacturing, construction, and housemaid should be monitored.

CONCLUSION

The aim of the paper is to identify the impact of migration among foreign labor to the Malaysia's economy specifically on the share of core economic indicator, Gross Domestic Product (GDP). In order to clearly analyze the relationship between both, author divided the immigrants based on their country of origin and sectors they worked for. As the result, author obtained positive correlation on sectors namely, services and agricultures with GDP.

The 11th Malaysia Plan highlighted the importance of effective migration management in order to achieve high-income country status. Therefore, these study significant to the government plan on effective migration to identify which sectors need more number migrants and vice versa. From the study, author suggested that the government give focused on construction, services and agricultures as it give positive correlation to the GDP.

Other than minimum policy wage that been implied to reduce the number of immigrants, increasing levies to the employers might also help in immigrant management to reduce number of immigrants. High levies will encourage employers to hire domestic labor. The study suggests that policy made to ensure immigrants achieve certain education level to work in Malaysia.

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