

## FOREIGN LABOUR AND JOB CREATION IN MALAYSIAN MANUFACTURING SECTOR

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### Abstract

The role of foreign labour in advancing the economy of a country can not be denied. In addition to affecting wage levels, unemployment for local workers and productivity, foreign labour may also influence the firm's decision to create jobs. But the consequence is still faint. Therefore, this study aims to analyze the impact of foreign labour on the creation of jobs in the manufacturing sector in Malaysia. Panel data analysis using the GMM method finds that the increase in the number of foreign labour will encourage firms to create jobs. However, the jobs created can be assumed that low-skilled jobs are in line with the characteristics of foreign labour that come to Malaysia. This decision suggested that the government be more careful in giving permission for the use of foreign labour in the firm. This is to ensure that foreign workers contribute to the creation of highly skilled jobs in line with Malaysia's goal of becoming a developed nation.

**Keywords**--- foreign labour, industrial sector, economic transformation, labour market, job creation

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### INTRODUCTION

The structure of the Malaysian economy has undergone changes over the last few decades. In the 1980s, the transformation of the economic structure had taken place significantly due to slow economic growth. The Malaysian economy has been transformed from the agricultural sector to the industrial and services sectors. Besides affecting the growth of economic and development, the transformation process also affected Malaysian labour market. The rapid economic growth resulted from the transformation process has increased the demand for labour from the particular sectors resulting in labour shortages in the labour market (Han, Park, Jin, Kim, & Seong, 2008; Lee & Sivananthiran, 1996) regardless the skill of the labour especially in the manufacturing sectors (Bachtiar, Fahmy, & Ismail, 2015).

To address the issue of labour shortage, the Malaysian government has encourages the inflow of foreign labours (for an instant the immigrants of a non-Malaysia citizen into the country). According to Aswicahyono, Brooks, and Manning (2011), Athukorala and Devadason (2011) and Athukorala and Devadason (2012) in the manufacturing sector, the number of foreign worker increase about 8000 over 2 000 000 from 1995 to 2005. They are heavily concentrated in the export-oriented industries compared to domestic- market-oriented industries. This situation caused by the inflow of low-skilled foreign workers has prevented Malaysia from creating high skill jobs. Consequently, according to the World Bank Report (2010), Malaysia has become one of the countries lacking in high skill job creation. It also has prevented Malaysia from shifting to technology-intensive production. This situation can be seen closely in the Malaysian manufacturing sector, in which the sector has been developed and involved in the production process from labour-oriented to capital-oriented production. Thus enhancing the high skill job creation in the sector (Samsi, A., et. al., 2018).

However, it is difficult to find statistical records that report the impact of foreign labour on job creation in Malaysia, whether in printed version or online version. The difficulty in obtaining the record has led to the Malaysian government, policymaker and practitioners fail to design correct policy regarding foreign workers in Malaysia, especially in the manufacturing sector.

Hence, this present paper aims to examine the impact of foreign labour on job creation in the Malaysian manufacturing sector.

The remaining of this present research as follow. Next is describing the pattern of foreign labour in the Malaysian manufacturing sector. A further section explains the effect of foreign labour on the labour market: empirical evidence of the host country. Followed by the section of data and methodology. Then, the section of result and discussion and lastly is the section of conclusion.

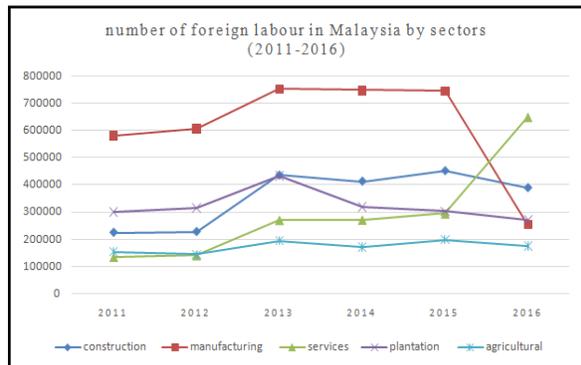
### The pattern of Foreign Labour in the Malaysian Manufacturing Sector

Statistically, the Malaysian manufacturing sector is the highest sector depend on foreign labour, especially low-skilled foreign labour. The introduction of export-oriented industries and heavy industries in the 1980s and 1990s, respectively, has led to the rapid expansion of the manufacturing sector. The expansion is driven by the labour-intensive industries such as electrical and electronics, textile and non-metallic, resulted in a substantial increase in demand for unskilled-labour (Narayanan & Lai, 2014). Unfortunately, domestic labour is less interested to work in the low-skill job in the manufacturing sector led to these industries faced severe labour shortage issue (Hugo, 2004). The failure to overcome the labour shortage issue has threatened Malaysia's ability in term of foreign direct investment (FDI). Thus, in November 1991, the Malaysian government agreed to allow the inflow of foreign labour in production activities, especially involving the low-skilled job (Pillai, 1999).

Until the year 2016, it is recorded that a quarter of foreign labour involved in the manufacturing sector as compared to the total number of employees in the Malaysian manufacturing sector. This ration proves that the manufacturing sector is the sector that absorbs the most number of foreign labour compared to other sectors in Malaysia production activities, as can be seen in Figure 1. However, such a statistic does not isolate the employment of foreign labour based on their skills (Narayanan & Lai, 2014).

According to figure 1, in the year 2011, a total of 580 820 foreign labour involved in manufacturing sector recorded the highest among the other sectors during the same year. The increase in

foreign labour continually until the year 2013 of 751 772 people from 2 080 386 total number of foreign labour in the Malaysian labour market. Conversely, the number of foreign labour recorded in the manufacturing sector and others sector decreasing starting from the year 2015.



**Figure 1.** Number of foreign labour in Malaysia by sectors (2011-2016)

Source: Epu/ www.data.gov.my

There are several factors that cause the manufacturing sector to become foreign labour priority among the other sectors. For an instant, the higher wages offered in the manufacturing sector compared to other sectors, such as agricultural and construction sectors. Besides that, the Malaysian manufacturing sector has created jobs for foreign labour (Selamah, M., et., al., 2019). Additionally, the factor of security and a comfortable environment are among the driving force for the involvement of foreign labour in the manufacturing sector. As well as the attitude of employers who prefers foreign labour than local labour force as a result of a more productive, effective and willingness to accept low payment, especially in performing dirty, dangerous and difficult (3D) (Narayanan & Lai, 2014).

On the other hand, as a host country, the majority of foreign labours in Malaysian manufacturing sector in 2015 come from Nepal which comprises 50.7% of the total foreign labour, as can be seen in Table 1. Nepalese who enter Malaysia are mostly men and also known as Gurkha soldiers. Although they are physically small, their physicals strength and courage, high discipline and loyalty have prompted employers to hire them, especially in the Malaysian manufacturing sector. Followed by foreign labour from Indonesia of 13.9% and Bangladesh (13.7%). Meanwhile, the least number of foreign labour is From Laos (0.003%), Thailand (0.04%) and China (0.07%).

**Table 1.** Statistic of foreign labour in the manufacturing sector by country in 2015

Country	Total (person)	Percent age	Country	Total (person)	Percent age
Loas	20	0.003	Filipina	4192	0.60
Thailand	313	0.04	Lain-lain	5148	0.74
China	510	0.07	Vietnam	43039	6.17
Kemboja	2892	0.41	Myanma	88877	12.75
Pakistan	3133	0.45	Bangladesh	91325	13.10
Sri Lanka	3362	0.48	Indonesia	97145	13.93
India	3593	0.52	Nepal	353605	50.72
			<b>Total</b>	<b>697154</b>	

Source: Epu/ www.data.gov.my

### The Effect of Foreign Labour on Labour Market: Empirical Evidence of Host Country

In general, the impact of foreign labours on the host country is diverse. For example, the impact of foreign labours on host country's economy indicators such as increasing in group of labour force, rising wages in the labour market and increase competition among labour force in high-risk jobs such as construction (Abdul-Rahman, Wang, Wood, & Low, 2012; Aizawa et al., 2002; Castles, De Haas, & Miller, 2013).

Apart from the economic impact, the inflow of foreign labours also affects in term social, such as Kanapathy (2008) has conducted a study on the social impact of inflow of foreign labour in Malaysia. Kanapathy (2008) found a positive relationship between the increase in foreign labour on the incidence of crime and the rate of infectious disease in Malaysia. Hence, this study proposed that the Malaysian government control the inflow of foreign labour to curb the increase in crime rate and infectious disease rate in Malaysia.

Besides studied on the social aspect, there are also researches focus on foreign labour and economic aspect such as economic growth, labour demand, wages, productivity and unemployment rate. Such as Thangavelu (2012), yet the study added the impact of foreign labour on Singapore economic growth is dependent on the skill of foreign labours. As Singapore only allowed the inflow of skill foreign labour in an innovative sector such as Information and Communication Technology (ICT) and Tourism sector, so the impact of skilled foreign labour can be 'double-edged sword' effect on sector's development and economic growth. Hanoomanjee, Jaunky, Ramesh, and Saumik (2017) has been studying the impact of foreign labour on Mauritius economic growth. The study used panel data of Mauritius manufacturing sector from the year 1990 to 2015. The study proves that foreign labour has a significant impact on Mauritius economic growth, both in short term and long term. Other studies has been conducted and various finding has been point out in their studies regarding the impact of foreign labour on economic growth, productivity and etc such as studied by Jones and Owen (2007) in UK and Greece economic growth, Gilpin, Henty, Lemos, Portes, and Bullen (2006) (UK economic growth), Christofides, Clerides, Hadjiyiannis, and Michael (2007), Dritsakis (2008) of Greece and Feridun (2005) in Norway.

Regarding the Malaysian labour market, several studies have been done to examine the effect of foreign labour on productivity, wages rate and output. In the aspect of Malaysian productivity, previous studies such as Noor, Isa, Said, and Jalil (2011), Wei, Ismail, and Yussof (2014), Jajri and Ismail (2015), Palel, Ismail, and Awang (2016), and Tung, Lau, Lim, Toh, and Chua (2016) has focused on the impact of foreign labour on Malaysian productivity in positive relationship. The result of their studies has found that foreign labour increases the productivity of the sector driven by their positive attitude. Although wages earned by foreign labour are cheaper than local labour, their positive attitude has increased the productivity and profitability of the company, thereby encouraging companies to employ them against local labour. However, studies by Narayanan and Lai (2014) found otherwise.

In term of the impact of foreign labour on Malaysian wages rate, some literature such as Jajri and Ismail (2015), Ismail, Bachtiar, Osman, and Noor (2003), Athukorala and Devadason (2012), Wei et al. (2014) and Narayanan and Lai (2014) has found that due to the role of foreign labour in the host's labour market. If foreign labour is a substitute for domestic labour, then foreign labour earned low wages. This affects domestic labour as well, where domestic labour earned an equal level of wages. However, the opposite situation occurs if foreign labours play as a complement to domestic labour in the domestic labour market.

Based on the literature review has been done prior to this present paper, there is lack of literature that discusses the impact of foreign labour on firm's decision regarding job creation, either in developed countries or Malaysia. Whereas, according to Davis and Haltiwanger (1999) and Stavrunova (2001) job creation is one of the labour market performance indicators, aside to the unemployment rate and wages rate. Therefore, this present paper aims to add a glimpse of work on the impact of foreign labour on the job creation by investigating to what extent foreign labour affects job creation in Malaysia, specifically in Malaysian manufacturing sector.

**DATA AND METHODOLOGY**

This study is utilized the data of foreign labour in the Malaysian manufacturing sector by industries group, together with the variables of the number of employment, real output, real wages, assets and R&D expenditure. These data were collected from the Malaysian manufacturing report survey from 2005 to 2015, released by the Malaysian Department of Statistics (DOS). It is emphasized that this study has calculated job creation based on the formula introduced by Davis and Haltiwanger (1999). The formula including the average size of a firm as a result of the change in the industry's size. Literally, this formula distinguishes between the number of a job (position) and the number of employees (workers). The formula of job creation as written:

$$JC_{st} = \sum_{+st} \frac{x_{est}}{g_{st}} \tag{1}$$

Where  $JC_{st}$  denotes the rate of job creation in sub-sector,  $x_{est}$  refers to employment gained at sub-sector,  $g_{st}$  is the growth rate at sub-sector and The subscript  $s$  and  $t$  are denoted sub-sectors and current time, respectively.

The formation of the model of job creation is derived from the Theory of Labour Demand, which is the branch of the Cobb-Douglas production function. While the econometrics technique used in this research is the Generalized Method of Moment (GMM) System to investigate the relationship of the variables on job creation. The present study used the method of GMM-System because this method uses a set of instrumental variables to solve the issue of endogeneity in the regression of panel data. The issue of endogeneity arises from the potential correlation between the independent variables and the error term in panel data regression. Hence, the GMM-System estimators overcome the issue of endogeneity by includes the lagged value of dependent variables with the previous instrument. Besides that, GMM-System estimators also omitted dynamics pattern in the panel data model, ignore the impact of lagged values of the dependent variables in regression (Blundell & Bond, 1998).

The econometric model is developed as follow:

$$j_{cit} = \alpha + \beta_1 j_{c(i-1)} + \beta_2 \log y_{it} + \beta_3 \log w_{it} + \beta_4 \log a_{it} + \beta_5 \log rd_{it} + \beta_6 \log fl_{it} + \epsilon_{it} \tag{2}$$

The description of the model is as followed. The model describes the function of job creation to lag of job creation, output, wages, asset and R&D expenditure and lag of R&D expenditure as well as foreign labour. Where the subscript  $i$  refers to sub-sector in the Malaysian manufacturing sector and  $t$  refers to the current time. It is expected that all the factors studied have a positive relationship to the job creation in the Malaysian manufacturing sector.

**Table 2.** Summary of operation definition and measurement for all variables

Symbol	Operation definition
$j_{cit}$	Job creation calculated from the formula introduced Davis (1999)
$j_{c(i-1)}$	One year lagged of job creation
$y_{it}$	The value of real output manufacturing sector

	produced in Ringgit Malaysia (RM)
$w_{it}$	The value of real wages paid to the employees in the manufacturing sector in Ringgit Malaysia (RM)
$a_{it}$	Assets, consists of machinery, fixed asset etc. after deducting the depreciation value in Ringgit Malaysia (RM)
$rd_{it}$	Research and development expenditure consists of the systematic study of a new process, technique and application of the product n producing product in Ringgit Malaysia (RM)
$fl_{it}$	The number of foreign labour engaged in the manufacturing sector

**RESULT AND DISCUSSION**

Consequently, this section discusses the findings of this present research to address the research question of to what extent foreign labour affect job creation in the Malaysian manufacturing sector from 2005 to 2015. Table 3 present the empirical result of the GMM-System regression in Equation 2. The Hausman tests presented in Table 4 are reported estimated equations show that the random-effects estimator can be rejected. The positive correlation between the regressors and the individual-specific effects means that there are unobservable effects that differ between industries. By performing the fixed-effects technique, the  $vi$ 's are wiped out, leaving the within-estimator unbiased and consistent for  $\beta$ .

Considering the result of the concentration variable concerned, namely foreign labour showed positive significant relationship on job creation in the Malaysian manufacturing sector of 0.0808 at 1% level of significance. This implies that a unit changes in the number of foreign labour inflow in the Malaysian manufacturing sector affects the job creation of 0.0808, in the same direction. This statistical finding of the GMM-system regression explains that the foreign labour in Malaysian manufacturing sector has a significant impact on the job creation, although there is lack of statistical report (either in printed version or online version) that report the involvement of foreign labour (with regard to their skill). Thus, this study assumes that the involvement of foreign labour in the Malaysian manufacturing sector that affected job creation is unskilled foreign labour. This conclusion is based on the positive sign shown in GMM-system regression results. The unskilled foreign labour encourages firms in the Malaysian manufacturing sector to create jobs that are labour-intensive rather than capital-intensive. This is because the cost of employing unskilled foreign labour is lower than the cost of shifting the production process to capital-intensive. This is in line with the statement in previous studies by Narayanan and Lai (2005), Kanapathy (2008), Noor et al. (2011) and Thangavelu (2012).

All the other variables have expected signs and are significantly different from zero. Among all variables including focus variable, it is found that wages are the strongest factor affected job creation in the Malaysian manufacturing sector where increase a unit change in wages will also increase the job creation 0.213 percent. The coefficient for the  $y$ , output, is negative, suggesting that job creation is lower in industries where the number of working hours is relatively flexible. Rather than changing the number of employees, firms can adjust the number of hours worked per employee.

**Table 3.** The Summary Result of GMM-system Regression on Job Creation in Malaysian Manufacturing Sector from year 2005 until 2015

Variables	Coefficient	S.E	T
<b>Dependent variables</b>			
Output (y)	-0.1296***	0.0074	-17.51
Wages (w)	0.2133***	0.0069	30.52
Assets (a)	-0.0006	0.0064	-0.09

R&D expenditure (rd)	0.0525***	0.0051	10.18
Lag Job creation (jc <sub>t-1</sub> )	0.0520***	0.0009	55.52
<b>Focus variables</b>			
Foreign labour (fl)	0.0808***	0.0077	10.42
<b>Diagnosis test</b>			
Serial correlation		0.0723	
Heteroscedastic		0.000	
Multi (mean VIF)		4.39	
<b>Sargan test</b>			
AR(1)		0.6909	
AR(2)		0.0007	
		0.4728	

Note: \*\*\* is significant at 1%, \*\* is significant at 5% and \* is significant at 10%.

## CONCLUSION

Malaysia is a developing country that as several times undergone series of economic transformation, in line with the country's development. Labour force is one of the most important factors to support the transformation process. One of the sectors identified as facing the labour shortage is the Malaysian manufacturing sector. The labour shortage increases the pressure on domestic wages. In order to prevent increases in wages, the Malaysian government has allowed the inflow of unskilled foreign labour (Özden & Wagner, 2014). Although unskilled foreign labour is good to promote job creation and economic growth (Sabri, N., et., al., 2019) the Malaysian government and policymakers need to limit the inflow of them into the economy, specifically in term of amount of inflow foreign labour at one time. This is because to prevent the dumping of unskilled foreign labour that leads to increase in Malaysian unemployment. The competition in term of wages, demand and supply between foreign labour and domestic labour, if there is no control over the amount of inflow of foreign labour, Malaysia will face the problem of high unemployment in the future. Therefore, the Malaysian government needs to ensure that the design and implementation of the policy ensure the well-being of domestic labour.

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