Labour Force Participation of Rural Youth in Plantation Sector of Northern Peninsular Malaysia

(Penyertaan Tenaga Buruh Belia Luar Bandar dalam Sektor Perladangan di Utara Semenanjung Malaysia)

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ABSTRACT

Malaysian agricultural industry is labour-intensive, especially in oil palm plantations. It is reported in 2013 that 69% of the total number of plantation worker in oil palm plantation are foreign and 31% are local. This proportion indicates the lack of interest of the local people to work in the industry which resulted in vast employment of foreign worker. It is believed that the cost of foreign worker recruitment has increased due to rising social and security problems caused by the foreign workers which incurred a hidden cost to palm oil production. This paper aims to investigate the factors of local young labour shortage in oil palm plantation sector in Perak, Perlis, and Kedah. Malaysia can reduce its dependency on foreign worker by identifying the occupational interest of rural youth in oil palm plantation. A survey questionnaire is used to collect data using random and purposive sampling method. A total number of 332 respondents from rural young labours staying in FELDA and FELCRA areas were analysed using Probit model. Results show the factors contributing to the probability to participate in oil palm plantation are age, wage, wage squared, gender, level of education, and mother's occupation. Attraction factors that can possibly increase local youth participation in plantation sector includes improvement of working environment, job status, facility and benefit in plantation field.

Keywords: Rural youth; labour force participation; oil palm plantation; attraction factors

ABSTRAK

Industri pertanian Malaysia adalah berintensifkan buruh, terutamanya di ladang-ladang kelapa sawit. Berdasarkan laporan tahun 2013, sebanyak 69% daripada jumlah keseluruhan pekerja ladang kelapa sawit terdiri daripada warga asing, manakala sejumlah 31% adalah tempatan. Ini menunjukkan kurangnya minat rakyat tempatan untuk bekerja dalam industri ini sehingga memberi peluang yang besar kepada pekerja asing. Sebenarnya kos pengambilan pekerja asing telah meningkat disebabkan oleh peningkatan masalah sosial dan keselamatan yang berpunca daripada lambakan pekerja asing dan kos yang ditanggung adalah kos tersembunyi dalam pengeluaran kelapa sawit. Justeru itu, kertas ini bertujuan untuk mengkaji faktor-faktor kekurangan tenaga kerja muda tempatan dalam sektor perladangan kelapa sawit di Perak, Perlis dan Kedah. Malaysia boleh mengurangkan pergantungan kepada pekerja asing dengan mengambil langkah mengenal pasti kepentingan pekerjaan belia luar bandar di ladang kelapa sawit. Borang soal selidik digunakan bertujuan untuk mengumpul data melalui kaedah persampelan rawak dan bertujuan. Seramai 332 responden daripada belia yang tinggal di sekitar kawasan FELDA dan FELCRA telah dianalisis dengan menggunakan model probit. Hasil kajian menunjukkan faktor yang menyumbang kepada kebarangkalian penyertaan dalam ladang kelapa sawit adalah umur, gaji, gaji kuasa dua, jantina, tahap pendidikan, pekerjaan ibu. Disimpulkan bahawa penyertaan belia tempatan dalam sektor perladangan kelapa sawit mungkin dapat ditingkatkan dengan menambahbaik persekitaran bekerja, status pekerjaan, kemudahan dan faedah dalam pekerjaan perladangan.

Kata kunci: Belia luar bandar; penyertaan tenaga buruh; ladang kelapa sawit; faktor tarikan

INTRODUCTION

Oil palm industry forms the economic backbone of Malaysia and continues to face new challenges in the face of globalization. As of 2012, a total planted oil palm in Malaysia is about 5, 392,235 hectares (MPOB 2014). Sabah is the state with the biggest area of oil palm cultivation in Malaysia, which is 1.51 million hectares, also equivalent to 30 percent of the total area of oil palm cultivation in Malaysia. In Northern areas, Perak is a largest oil palm (389,164 hectares), Kedah (86,182 hectares) while Perlis is the smallest area oil palm cultivation in Malaysia

with on 295 hectares (MPOB 2014). Palm oil is exported to 145 countries around the world and thus making it an economic generator in the agriculture sector (MPOB 2012). The increase in commodities is expected to continue based on its advantage and ability to generate income to oil palm cultivation in Malaysia. Work force is needed in Malaysian oil palm plantation because of the uncomprehend mechanization and technology. Sufficient force is crucial to ensure the punctuality and efficiency of the farm operation to meet the need of Malaysian palm oil industry. Dominance of foreign worker in Malaysia plantation sector is not unusual. Statistic produced by the Labour Department shows a total of 300,000 foreign workers are currently employed in farm and industrial commodities, especially in oil palm plantations (Che Johari 2008). However, the current percentage of foreign employment has decreased due to several factors.

The government tries to reduce its reliance on foreign worker in the plantation. The number of Indonesian migrant has also declined following the opening of large-scale oil palm plantation in Indonesia. According to Sabri (2010), many of the returned Indonesian workers are subsequently hired in plantations in Kalimantan. The remuneration and fringe benefits in Kalimantan are more attractive than in Malaysia. The reduction in intake of foreign labour further safeguards the socioeconomic activities of the local population. As long as the plantation sector is labour force oriented, the plantation companies will need the local work force to replace the foreign work force. However, due to several factors, the local residents are not interested to work in the plantation industry.

Lack of mechanization and high technology machinery has created an over reliance on manual labour. Even though the government has set the quota of foreign worker to accommodate for 10 hectares of plantation, the number of foreign labour is still increasing with the rapid land expansion especially in Sabah and Sarawak. The current labour-to-land ratio is one man to 10 hectares of oil palm area. Assuming Malaysia is planning to develop another 500,000 hectares of land for oil palm by year 2020 and the labour-to-land ratio is well maintained, an additional of 50,000 workers will then be required by the oil palm plantation operators. This means that the total plantation workforce will be set at 550,000 workers by 2020. The issue here is that whether Malaysia can obtain the additional workforce by 2020 easily despite the current grapple with the mounting foreign labour shortage situation.

Youth is an invaluable asset to any country. Involvement of local youth in the oil palm plantation is important. Repulsion and attraction of local youth employment in the plantation sector, which is a major industry in Malaysia is crucial as the country will have to depend on it for decades to come. According to Hanim Adnan (2010), there are 350,000 foreign workers in the oil palm plantation out of a total of 557,900 workers in the oil palm sector which indicates that 60 percent of the total oil palm workers are foreign. This scenario gave a red alarm to the oil palm industry, which is an industry that highly dependable on foreign workers.

The government and private plantation managers may consider a few alternatives to help solve main issue, which is labour shortage. Thus, this paper aims to investigate the factors of young labour shortage in oil palm plantation sector in Perak, Perlis, and Kedah. The focus is on local rural young labour staying in the plantation areas or estates managed by the government agencies in the states of Perak, Perlis, and Kedah, specifically the Federal Land Development Authority (FELDA) and Federal Land Consolidation and Rehabilitation Authority (FELCRA).

LITERATURE REVIEW

This section discusses past studies on youth labour participation and foreign workers. Study by Khoo and Chandramohan (2002) highlighted issue on many plantations in the country has been stripped of the young workers with a better education who migrate to the vibrant manufacturing sector in urban areas, which offers not only a better working environment but also a better salary. Elder (1963) stated that education beyond high school was assumed highly significant as a determinant of the life chances to rural youth, whether they seek plantation or non-plantation occupation. The problem of a comparatively high dropout rate from high school and a relatively low rate of college attendance among youth from rural areas seems contradicting with the current situation. Past studies have shown that the rural youth are more prone to be disadvantaged in achievement opportunities, exposure to achievement values and high goals, and achievement motivation than the urban adolescents.

Many studies have been done on immigration and its impact on the economy. Immigration affects the employment in most countries. However, there is also a situation where a country with a higher percentage of foreign workers does not affect the employment rate of local workers (Angrist & Kugler 2003). Immigration could give positive and negative effects on the economy in terms of employment rate. Carrasco, Juan and Ortega (2008) mentioned that immigration means movement of people from one country to another with the intention of becoming perpetual residents in the country to which there are relocating. Therefore, every country has a different effect of immigration on wage and employment rate. A study conducted by Jean et al. (2007) showed that although the number of immigration in a country was high but the unemployment rate was low. There was also a situation where the country has both high immigration and unemployment rate. Thus, immigration certainly does not have any impact on the labour market performance. The researcher has also stated that if a country has a

high wage rate, there will be more immigration into that country.

According to Borjas (2006), in a particular country, immigrant has higher productivity than local workers. They can also adapt into the labour market of the host country easily. Dustmann (2003) stated that immigration does not cause a treat to the local workers. Besides, Rowthorn (2004) also stated that if there were a huge percentage of unskilled workers who migrate to a particular country, it will actually benefit the host country with cheaper labour jobs. They will generally work in the plantation and service sector such as restaurant, laundry etc. Meanwhile, he also mentioned that the competition between the local worker and these immigrants will be not an advantage to the economy. They have to compete to get a job. The larger the number of immigrant in this country, it will bring less opportunity for local worker to be employed in certain areas.

However, Longhi et al. (2006) found that immigration will not only affect the labour market performance, but it also causes inflation, affects the housing, social cohesion, and environment. Therefore, immigration implies more effects on employment opportunity compared to local wage. Based on Dustmann (2005) report, change factor in wage and employment may not imply effect on immigration in the short term. It affects the wage and employment for local workers. In consequence, immigration will cause an increase in workers' wage if foreign workers are complementing. In the beginning of year 1982, the general observation has concluded that immigrants took away jobs from local worker which will increase the unemployment rate to 8.3 per cent in 1986 based on previous studies by Hugo (1993). Moreover, Longhi et al. (2006) found that the increase in labour demand in a country is due to their overwhelming need of labour. This may cause labour intensive techniques or they specialize in labour intensive. In addition, the local workers who compete with foreign workers (substitute) will manage to earn lower wages, but this migration will increase the employment of complement workers with the skills possessed by foreign workers. This scenario can explain that, wage will reduce if local and foreign workers were substituting and increase if local and foreign workers were complementing.

Rowthorn (2004) found that immigration will cause a down slope in demand for local worker. Besides, it will cause a voluntary unemployment among the local workers as wage falls. As a result, they are more likely not to participate in the labour market (Dustmann 2005). However, for those local workers who have been working in particular industry, their wages will rise. This indicates the difference between the wage of local worker and immigrant, while they actually do the same job. Immigrant inflow in an area will increase the demand for housing and this will cause an increase in cost of living. Rowthorn (2004) suggested that many employers are willing to raise wage to compensate for workforce. If the

increase in wage is less than the inflation of cost of living, local worker will still be struggling even though they are being paid more. Thus, immigration is an advantage to a higher wage, but it is not a definite method that benefits the local workers.

The phenomenon of international migration flow in Malaysia is not recent. It has started since the British colonial period in Malaysia where immigrants were brought in from the most populated neighbouring regions like Java, China and India. The colonial ruler preferred the Indian to the Javanese and Chinese due to the lower Indian migration cost compared to Chinese and Javanese to Malaysia (Selvakumaran & Shanmugam 1995).

In the aspects of plantation, Bossen (1982) found that issue on plantation labour recruitment gives social and economic impacts, not only upon permanent plantation communities but also the peasant communities that supply both seasonal and permanent labour to the plantation sector. While selecting plantation labour force, plantation management is interested in a high degree of control over the workers in order to maintain the smooth operation of a large-scale enterprise. The ever-rising demand for agricultural products both locally and globally creates another chance for the youth to actively engage themselves in agriculture and gain from agricultural activities. Additionally, most African countries are creating yields below the potential which implies further improvement with increased labour and land productivity (Brooks 2002). The exact reasons that affect the youth employment in agriculture are not being studied enough in the nation.

Agwu, Nwankwo and Anyanwu (2012) carried out a study regarding the determinants of youth participation in agricultural labour in Abia State, Nigeria. The study recommends that attempt should be made to boost income from the plantation. The outcome had determined that the youth would prefer to work in non-farming field besides agriculture for a better income. Furthermore, the input cost and other related factors should be made affordable to the labour. Although the cost of inputs was not included as one of the variables, it should be noted that mechanization should have attracted youths towards agriculture. This probably means that youth could not afford high cost mechanization and therefore participation becomes hard.

According to the study by Mohammad et al., (2014), heavy work load and buoyant salary are the key factors that influenced the local youth to be reluctant to work in oil palm plantations. Palm oil plantation employees with buoyant salary will face problem in applying loan amenities from financial institution. This could be a solid reason why youth would like to go after a job with a stable income. On the other hand, most of the works in palm oil plantation such as loading and unloading fruit, maintaining oil palm plantation and applying fertilizer are heavy, dirty and dangerous in nature; which is a result of uncomprehend mechanization. It is believed that the implementation of effective and efficient mechanization

in oil palm plantation will lighten the workload of plantation workers.

In addition, study by Agwu et al. (2012) evidenced that level of education, income from non- agricultural sources, occupation of the parents, education level of the father, farm size and the rate of mechanization were the major determinants of agricultural labour participation among the youths in Abia State, Nigeria. According to Mohammad et al., (2014), there are eleven factors that will interest the local which are EPF, SOCSO, pre-school children (kindergarten), transport to school, medical facility, house and furniture, housing scheme, compensation scheme, electricity supply, clean water, and community hall. The responses were then analysed based on three demographic factors which are gender, age and marital status.

A previous study completed by Nnadi and Akwiwu (2009) showed that the determinants of sustainable labour include age, education, family size, farm size, annual farm income and number of information sources available. These omit the importance of the labour socioeconomic factors, technological attributes, and communication related variables in designing extended intervention approaches like participatory approaches. The farmer field school should be utilized in designing and disseminating technologies so as to incorporate labour socioeconomic conditions and expectations for sustainable adoption.

Another empirical finding in Nigeria by Damisa, Samdni and Yohana (2007) has highlighted in their study that in spite of diverse in social, economic and various other constraints about youth, women have high rate of participation in agriculture and they are very dedicated in the agricultural activity. However, the researcher has found the rate of youth participation and woman decision making in farming sector very minimal. The range of involvement and decision making in agriculture activities like intercultural operations is 48 percent and 45.33 percent in the crops harvesting, and the production in farm storage is 42.67 percent. Besides, 42.00 percent in the sales of farm production, 38.67 percent in subsidiary occupation like animal husbandry and dairy business and only 36 percent in financial management (Unnati, Ankush and Mande, 2012).

According to Zulfadlie (2011), students from the higher institution with agriculture background and the highest level of acceptance are not interested to work in plantation due to the environment in rural area. Based on the study by Daud Amatzin (2006), a minimal exposure of the local workers in plantation is another reason why they do not reject to involve in the plantation sector. Recent empirical finding by Mohamad Audong (2009), the migration of the local to other sector that is induced by various government formulated policies has resulted in the rapid growth and employment creation. The policies include National Vision Policy (NVC) and National Development Policy (NDP). These policies have diverted the interest of the local to manufacturing field and therefore the local became uninterested to work in plantation field. The substandard of education and standard of living are also the factors that prevent the local to work in plantation field.

After review the past studied, the factor that affect the young labour participation in oil palm plantation sector such as level of education, immigration, foreign workers in oil palm plantation, and socioeconomic and welfare effect. Thus, this studied focus on demographic factors that affect the labour force participation on rural youth in plantation sector of northern states of Malaysia.

METHODOLOGY

Primary data were used in this study to collect information from the respondents which were selected through the sampling of the population. This is to understand the factors that influence the participation of local youth in oil palm plantation.

In this study, the population of Perlis is about 227,075, Perak 2,258,428, and Kedah 1,947,651. The population was selected in FELDA and FELCRA area. The sample focused mainly on young labour in these areas. The ages were ranged from 13-45 years old.

A total of 332 questionnaires were collected from young labours that are working and staying in palm plantation in Perlis, Perak and Kedah through a random and purposive sampling method.

By referring to Table 1, Perlis is a smallest states with populations around 227,075 people. The oil palm plantation also small and only 295 hectares. In contrast with Perak where with a total populations of 2,251,428 peoples, it has 389,164 hectare oil palm plantation. While Kedah is the second biggest oil palm plantations in northern states with 86,182 hectare (1,947,651 populations). The total respondents of data collection for three states as below:

Probit regression method is applicable in this study because the dependent variable has only two possible outcomes of local youth participation in oil palm plantation, which are those who do and do not work at the oil palm plantation. They are called the dummy

TABLE 1. Sample for Data Collection

States	Populations (People)	Palm Plantations (Hectare)	Total Respondent (People)
Perlis	227,075	295	82
Perak	2,251,428	389,164	109
Kedah	1,947,651	86,182	141
Total	4,426,154	475,641	332

Sources: Economic Planning Unit (2014); MPOB (2014)

variables or dichotomous variables (1 = those who work at the oil palm plantation, 0 = those who do not work at the oil palm plantation).

Let y_i^* represent this latent variable and assume that y_i^* is a linear function of x_i. So, equation can be written as:

$$y_i^* = \sum_{i=1}^{n} \beta x_i + \varepsilon_i \qquad (1)$$

$$y_i = \begin{cases} 1 \ if \ y_i^* > 0 \\ 0 \ if \ y_i^* \leq 0 \end{cases} \qquad (2)$$

Where,

y_i = Observed Dichotomous Dependent Variable (1 = who work, 0 = who do not work).

y_i^* = Underlying Latent Variable that indexes participation of local youth in oil palm plantation

x_i = Vector Repressors

β = Vector of parameter to be estimated

ε_i = Error term which is assumed to have a standard Normal Distribution

X1 = Age
X2 = Gender
X3 = Marital Status
X4 = Level of Education
X5 = Race
X6 = Mothers' Occupation
X7 = Fathers' Occupation
X8 = Wage

Assume that the error term in the latent equation (1) follows a normal distribution, the probit model can be expressed in probability as be follow:

Prob($Y = 1$) = Prob($y^* > 1$) = Prob($x'\beta + \varepsilon$)
= Prob($\varepsilon < x'\beta$) = $\phi(x'\beta)$ $\qquad (3)$

Prob($Y = 0$) = 1 − Prob($y = 1$) = 1 − $\phi(x'\beta)$ $\qquad (4)$

The ϕ = Cumulative Distribution Function (CDF) of the standard normal distribution. The maximum parameter estimates (MLE) are obtained by maximizing the the following log likelihood function:

$$LF(\beta) = \sum_{i=1}^{n} y_i \ln(\phi(x'\beta)) + (1 - y_i) \ln (1 - (\phi(x'\beta)) \qquad (5)$$

The model will be estimated with the robust variance estimates (Huber/ White/ sandwich estimator of variance). This means that estimates of the standard errors that are robust is needed in the regression when error term is not identically distributed to ensure the valid statistical inference about the population parameter coefficients.

RESULTS

This section describes the sample characteristics of the data on 332 respondents in Perlis, Kedah and Perak follows by discussion on results of Probit Model.

Majority of respondents aged is between 20 to 29 years old (53.6%, 178 respondents). Few respondents aged around 30 to 39 years old (24.7%, 82 respondents), below 20 years old (15.4%, 51 respondents) and above 40 years old (5.7%, 19 respondents). Figure 1 show the percentage of respondents by age. In terms of sex, about 42.2% or 140 respondents are male while 57.8% or 192 respondents are female.

Information on education is presented in Figure 2. Out of total sample respondents, only 0.9% (3 respondents) do not have any education background. Majority of respondents have SPM's qualification (49.1%, 163 respondents). About 1.5% (5 respondents) have primary school of education, while only 0.9% (3 respondents) have UPSR certificate. About 6.9% (23 respondents) studied until SRP/PMR, 6% (20 respondents) have technical certificate, 17.7% (59 respondents) have STPM/STAM certificate, 12.3% (41 respondents) have diploma qualification and 5.4% (18 respondents) have degree/master/PhD qualification.
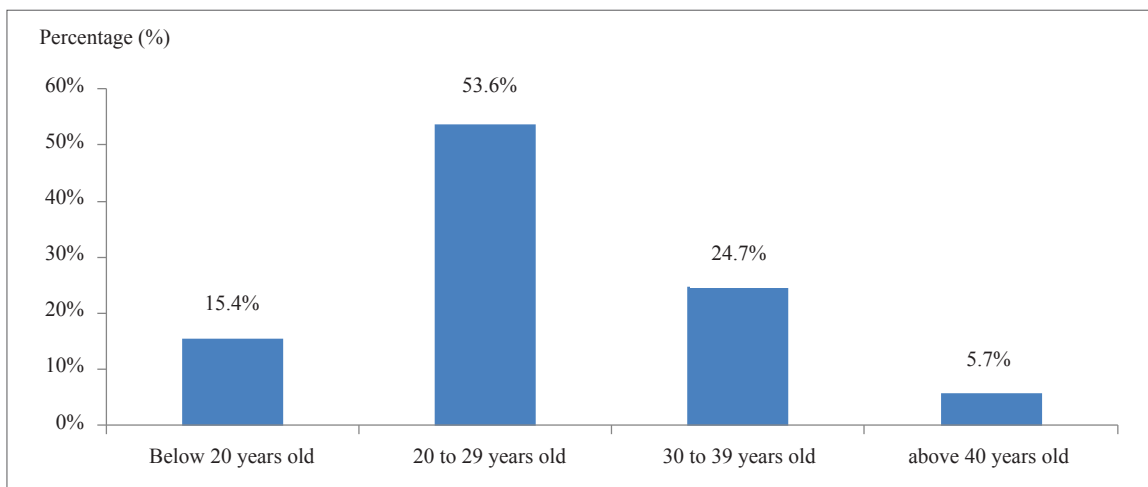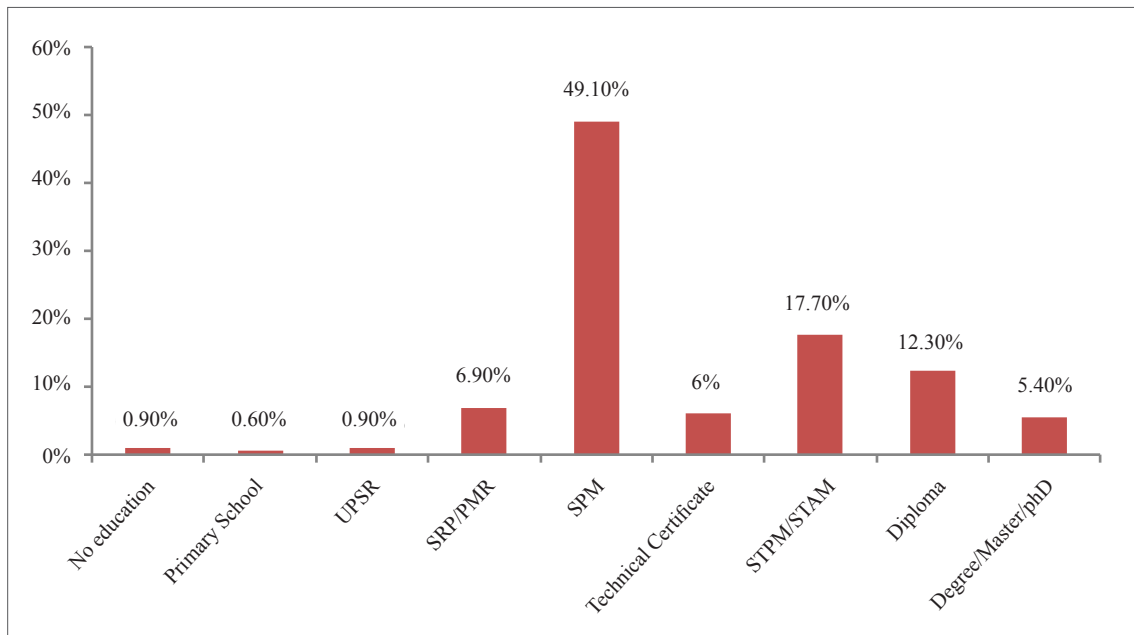

FIGURE 1. Respondent by Age

FIGURE 2. Education Background of Respondent

Figure 3 illustrates the family background of respondents. Majority of respondents' family background involve in agricultural sector (either father or mother or both work at agriculture sector). About 79.5% or 246 respondents said that their father work in that sector, while only 25.9% (86 respondents) said that their father do not work in the sector. For mothers' occupation, only 30.4% (101 respondents) admitted that their mother work in this agricultural sector while majority or 69.6% (231 respondents) claimed that their mother do not work in this area or full housewife.

In terms of respondents working status, majority or a total of 222 respondents (69.6%) is currently working while a total of 110 respondents (30.4%) do not work in plantation sector (Refer Figure 4). Besides working in plantation sector, other respondents are working with government, a few working in private sector or GLC's or simply self employed by becoming an entrepreneurs. Figure 5 presents information on working experience in plantation sector. Only 82 respondents (26.2%) retained working in plantation sector, 34 respondents (10.2%) quit, while a total of 211 respondents (63.6%) have no experience working in plantation sector.

Probit model is applied to analyse the factors that influence the participation of youth labour in oil palm plantation in Perak, Kedah and Perlis. Table 2 presents the result of Probit model.

From Table 2, the value of Pseudo R^2 is 0.8328. This means that the independent variables that are included in this model show a total of 83.28% variation in the participation of young labour in oil palm plantation in Northern Peninsular.
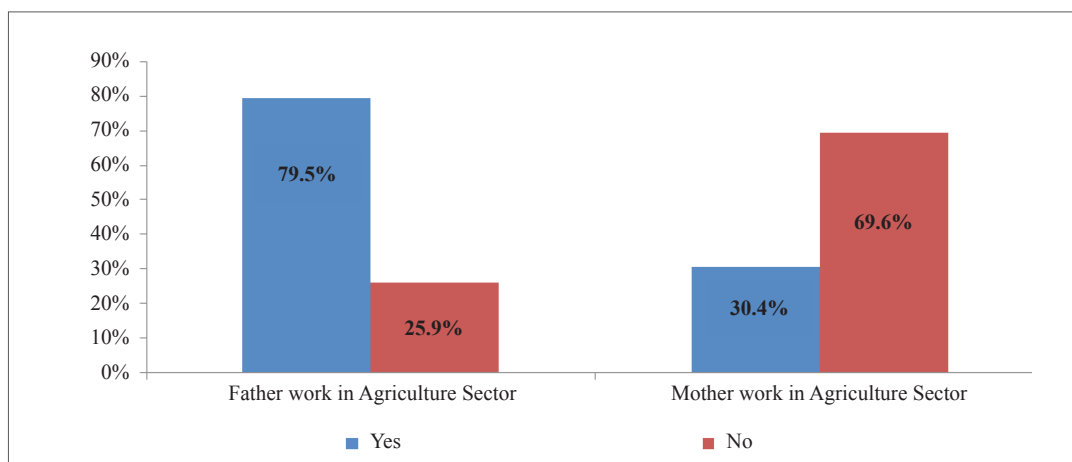

FIGURE 3. Family Background in Agriculture Sector
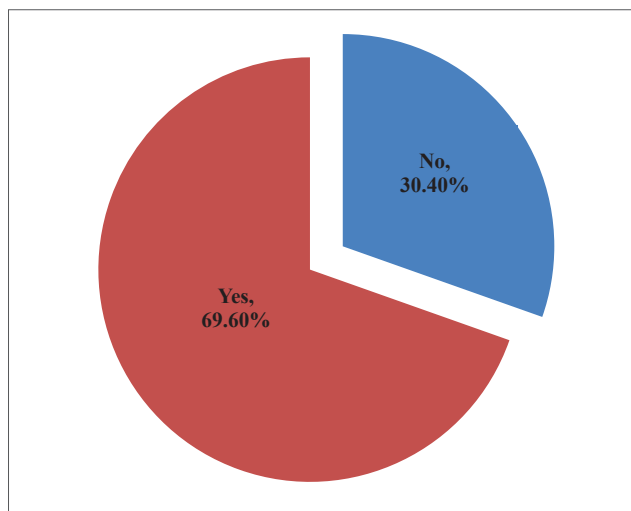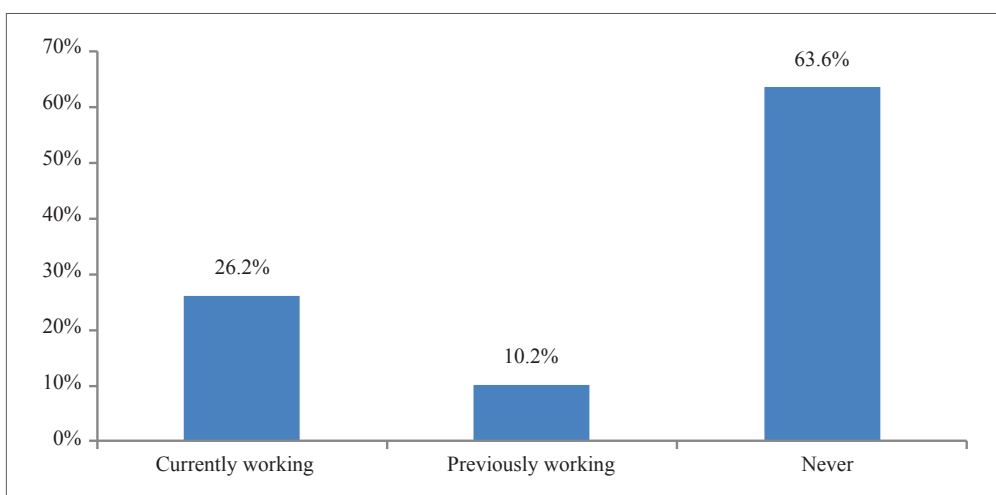
FIGURE 4. Respondents Working Status

FIGURE 5. Respondents Working Experience in Plantation Sector

This study found that explanatory variables, namely age, age^2, gender, education level and mother occupation are significant at the 5% level whereas wage is significant at 1% level. Age and wage are found to have significant positive relationship with the participation of young labour in oil palm plantation while age^2, gender, education level and mother occupation have negative relationship with the participation of young labour in oil palm plantation.

A statistically positive significant coefficient of age indicates that the older respondents are more likely to participate in oil palm plantation. By using Probit average marginal effect, a unit of increase in respondent age will lead to an increase in probability of market participation by 0.0306. This explains why younger labours are less interested to work in oil palm plantation as compared to adult. By adding the age squared to age, the effect of a non-linear relationship with the independent variable is modelled more accurately. A

negative effect of age squared in this study means that as the respondent gets older, to a certain adult's age, the probability to participate is lessoned. Nevertheless, Norsida (2007) found that the average age of farmers has increased to 56 years old in Malaysia.

Wage is found to be significantly influence the participation of rural youth labour in the plantation sector although the change is very minimal. The value of Probit average marginal effect pointed out that a unit of change in wage will increase the probability of labour youth's participation status by only 0.0003. This may be due to the buoyant monthly wage in oil palm plantation that creates difficulty for the employee to apply for loan facilities from financial institution. Besides, the daily wage scheme that is normally implemented in the oil palm plantation is lower compared to the manufacturing industry.

In terms of gender, men are more likely to involve in oil palm plantation than women. The value of probit

TABLE 2. Probit Estimation Result

Variables	Probit			Probit Average Marginal Effect		
	coefficients	T-statistic	P-value	Coefficients	T-statistic	P-value
Age	0.5890	2.44	0.015**	0.0306	2.54	0.011**
Age^2	-0.0118	-2.34	0.019**	-0.0006	-2.45	0.014**
Gender	-0.9990	-2.04	0.041**	-0.0519	-1.71	0.087*
Marital Status	-0.0928	-0.44	0.657	-0.0048	-0.43	0.666
Education Level	-0.1779	-2.14	0.033**	-0.0092	-1.99	0.047**
Race	-0.3063	-0.70	0.487	-0.0159	-0.71	0.479
Dad's Job	0.0923	0.29	0.775	0.0048	0.29	0.775
Mom's Job	-0.5299	-2.06	0.039**	-0.0275	-1.69	0.091*
Wage	0.0050	4.62	0.000***	0.0003	5.74	0.000***
Pseudo R^2	0.8328					
Chi-Squared	0.0000					

Note: Asterisk * denote significant at least at 10 percent, ** 5 percent, ***1 percent, respectively

average marginal effect indicates by being a male over female labour, the probability to participate is higher by 0.05. On the other hand, we can say that a unit of increase in female labour can decrease the probability of young labour participation by 0.05. This result is contradicting with Damisa et.al (2007) who found that women have a higher level of participation in agriculture and dedication in their agricultural activity.

Several past studies has proven a negative relationship between education and participation of youth in agricultural industry. This study also found a negative coefficient of education level, which explain that respondents who have higher level of education are less likely to participate in oil palm plantation. Based on marginal value, one unit increase in level of education will reduce the probability to participate by 0.01 percent. The implication is that as the level of education increases, rural youth labour most likely to disengage in farming in the village and migrate to the urban area for a better job opportunity. This finding is consistent with Agwu et al. (2012) but inconsistent with the findings of other researchers such as Adenegan et al. (2004) and Eskola (2008).

In the aspect of family background, Table 2 shows that mother occupation has negatively affected the participation of rural young labour in oil palm plantation, which suggests that the participation of mother in the agriculture area will decrease the participation of young labour in the oil palm plantation. Interesting enough that fathers' occupation or father's involvement in paltation sector is not at all significant in influencing the probability to participate among rural local youth. In other words, this result has evidently show a negative relationship between mother's occupation and young labour in oil palm plantation. Based on Probit average marginal effect, a unit of increase in the involvement of mother in the agricultural will decrease the probability of young labour

participation by 0.03. This result is contradicting with the finding from Agwu et al. (2012) which showed a positive relationship between parent's occupation and probability to participate in plantation sector.

DISCUSSION AND CONCLUSION

Majority of the respondents are men with age between 20 to 29 years old and some of them do enrol in undergraduate program. Few has no agricultural family background but received information regarding oil palm plantation sectors (only 25.9% fathers not work in plantation sector while 69.6% mothers not work in plantation areas). From the survey, majority of the youth in Perak, Perlis and Kedah have a high and positive acceptance, attitude and knowledge towards working in oil palm plantation. From the result by Probit test, it is clarified that gender is a significant factor to create a better acceptance, attitude and knowledge towards working in oil palm plantation.

This study found that majority of the farmers are in their old or advanced age, while the young rarely engaged in farming in the study area. Besides, most farmers are male and almost all are married; hence family labour in farming activities will be effective. Illiteracy level was higher among the farmers in the study area and majority of them use farm labour in marketing activities, there is a large household size in the area. The data collected managed to fulfil the objective of this study which is to reveal any difference that might occur between male and female respondent in their acceptance, knowledge and attitude towards plantation sector.

Based on the Probit Model, age and wage factors have significant positive relationship with rural youth participation in oil palm plantation. Meanwhile, gender, education level and mother occupation have

negative relationship with labour youth participation in oil palm plantation.

Besides these demographic factors, open ended questions in the survey shows the importance of other factors such as social environment, social facility, and social economic. We have identified the options to minimize the negative impact of total foreign workers in the oil palm plantation while maximizing the potential for social and economic benefits through re-assessing the environmental and socioeconomic benefit of working in oil palm plantation. For instance, Employee Pension Fund (EPF) and better basic facilities in the estates are identified as factors need to be improved in order to attract rural youth to participate or work in this sector. Government or private policies focusing on these attraction factors can encourage the rural youth to participate in oil palm industry. This finding is supported by a previous study by Sulin (2004) which stated that the plantation career is an unsecured job. In addition, both heavy work load and buoyant salary are the main factors that make the oil palm industry unappealing for the local, mainly the local young labour in Perak, Perlis, and Kedah. However, the interest of local worker in oil palm plantation is diverse based on the demographic factors such as gender, age, and education level.

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