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Article

Factors influencing local workers to venture and sustain in the oil palm plantation industry

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Abstract: This study aims to investigate what influences local workers over the age of 40 to work and stay employed in oil palm plantations. 414 individuals participated in a face-to-face interview that provided the study's primary source of data. Exploratory Factor Analysis was used to analyse the given data. The study revealed that factors influencing local workers over the age of 40 years to leave or continue working in oil palm plantations can be classified as income factors, internal factors and external factors. The income factor was the most significant factor as the percentage variance explained by the factor was 26.792% and Cronbach Alpha was high at 0.870. Therefore, the study suggested that the oil palm plantation managements pay more attention to income elements such as basic salary, wage rate paid to the workers and allowance given to the workers since these elements contribute to the monthly total income received by the workers and in turn be able to attract more local workers to work and remain in the plantations.

Keywords: influencing factors; local workers; exploratory factor analysis; oil palm plantations

1. Introduction

The plantation sector, particularly oil palm, is the largest agricultural-based contributor to the Malaysian economy. In 2021, export revenue generated by the Malaysian oil palm industry was RM108.5 billion (Parveez et al., 2022). The backbone of the industry is oil palm plantations; in 2021, Malaysia's total oil palm planted area will hit 5.7 million hectares. Peninsular Malaysia owned the largest oil palm planted area, with a size of 2.6 million hectares, or 45.5% of the entire planted area, followed by Sarawak and Sabah at 1.6 and 1.5 million hectares, respectively (**Figure 1**).

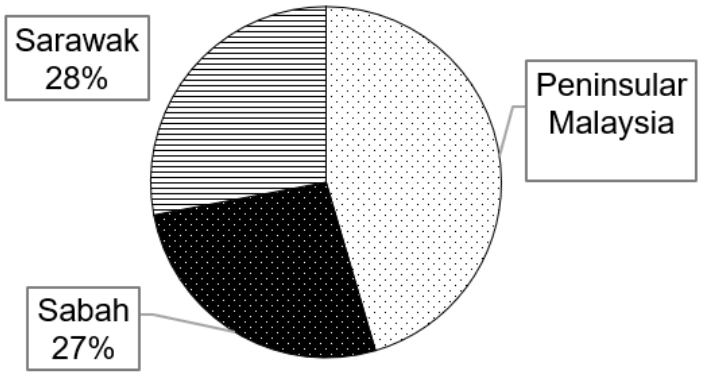

Figure 1. Percentage of oil palm planted area by region, 2021.
Source: MPOB, 2022a.

As a labour-intensive sector, manual labour is very crucial to carrying out activities in the field, especially for harvesting and FFB collection. As shown in **Figure 2**, in 2021, a total of 390,819 workers were reported working in the industry of oil palm plantations (excluding independent smallholders); in addition to the entire industry, 37.2%, or 145,466 workers, were involved in harvesting and FFB collection, and 33.4%, or 130,520 workers, were involved in fertiliser application, weeding, and pruning activity (known as "field workers"). Altogether, these two job categories represented about 70.6% of total workers throughout oil palm plantations in 2021. In terms of region, Sabah employed the greatest number of people (38.0% or 148,547), followed by Peninsular Malaysia (37.7%) and Sarawak (24.3%).

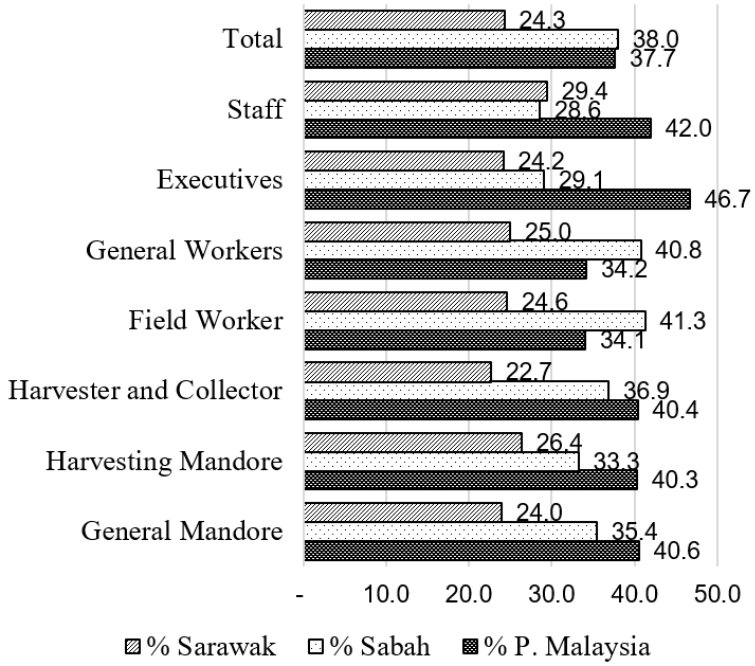

Figure 2. Percentage of the workforce in oil palm plantations by categories and region, 2021.
Source: MPOB, 2022b.

In addition to the high dependence on manual labour, the oil palm plantation industry is also reliant on labour from other countries, especially Indonesia, the Philippines, and Bangladesh. Out of 390,819 workers, 290,048 or 74.2% were foreign workers, and mostly they work as FFB harvesters and collectors, as well as field workers (**Figure 3**). The percentages of foreign workers for FFB harvesting and collection and field work such as fertiliser application, weeding, and pruning were very high at 94.0% and 81.0%, respectively. The high dependency on foreign workers was because local workers were not keen to work in this sector due to the 3D perception, i.e., dangerous, dirty, and difficult (Ahmad et al., 2020). Kumar et al. (2014) also reveal that the locals were not interested in working in oil palm plantations because of the nature of work on estates and the availability of a variety of alternative jobs across other industries.

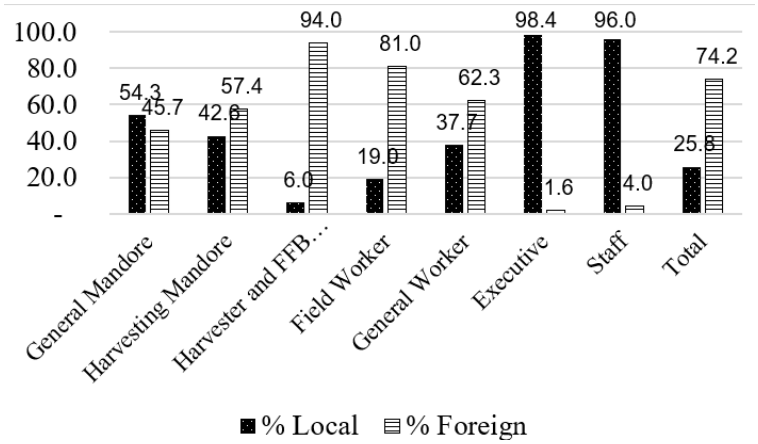

Figure 3. Percentage of local vs foreign workers in Malaysian oil palm plantation.
Source: MPOB, 2022b.

FFB harvesting and collection activities receive less response from local workers because the total income depends on productivity (known as piece rate), i.e., the total weight of harvested FFB. Although there are some allowances provided by the estates, the uncertainty of the amount of income per month causes local workers to have difficulty organising their expenses and other financial commitments. This factor, coupled with the factor of requiring physical strength, makes the locals not interested in venturing into this category of work. This forced the plantation management to employ foreign workers.

In Peninsular Malaysia, the percentage of foreign workers was 61.8%. Most of them were from Indonesia and Bangladesh, and the majority of them work as harvesters and FFB collectors. The percentages of foreign workers as compared to locals for harvesters and FFB collectors, as well as field workers, were 89.3% and 65.5%, respectively (**Figure 4**). As compared to Sabah and Sarawak, the percentage of local workers in Peninsular Malaysia is the highest, i.e., 34.5%, against 24.9% and 14.0% in Sarawak and Sabah, respectively. Based on job category, percentages of local workers are higher than foreign workers for general managers, executives, and staff. It means that the local workers are more interested in working in administrative work and supervision.

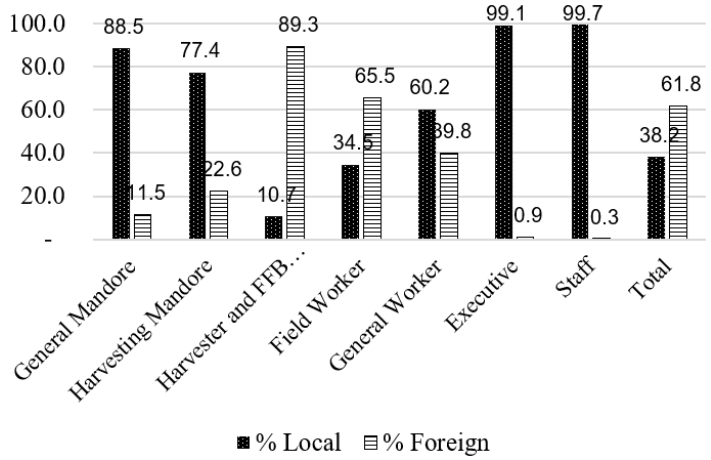

Figure 4. Percentage of local vs foreign workers in Peninsular Malaysia.
Source: MPOB, 2022b.

The presence of foreign workers has assisted the oil palm plantation sector in reducing labour shortage problems and increasing productivity. According to Ismail and Jajri (2015), the quality of labour directly influences firms' productivity instead of technological progress, personnel management, and the quality of other inputs. However, the high dependence on foreign workers, especially for activities such as FFB harvesting and collecting, is an unfavourable situation for the Malaysian oil palm plantation sector. This is because such activities are the main contributor to the plantation's income. The maximum period of work permits allowed by the government is 13 (10 + 3) years, and if they return to their respective countries, it will cause the plantation sector in Malaysia to have a shortage of experienced workers and can affect the overall productivity and income of the plantation. According to Mamat (2010), Malaysian export revenues could decrease by up to RM10 billion if the number of foreign workers in oil palm fields is lowered by 30%. Companies that grow oil palm should increase the socioeconomic worth of the locals who labour there in order to keep them (Ayob et al., 2015). All benefits, including school aid and insurance, should be provided to local residents, and some benefits need to be reassessed. (Ramachandran and Shanmugam, 1995).

The plantation sector is a labour-intensive sector, and the demand for labour will increase in line with the increase in crop acreage. The majority of palm oil plantations are in rural areas, and poor internet facilities have prompted locals, especially the youths, to be less interested in working on the plantations. This has caused shortages of workers in the oil palm plantation industry, and to cover the shortage, foreign workers have to be brought in. A labour shortage has long plagued oil palm growers, which has worsened due to the recent pandemic issues (Crowley, 2020). The labour shortage issues inherent in the domestic plantation industry were expected to reduce productivity and harvest round even during the peak season from September to October of every year (Zulkefli et al., 2020). Several plantations in the nation have lost the young workers with greater education who leave for the thriving manufacturing sector in metropolitan regions, which provides not only a better working environment but also a better wage (Khoo and Chandramohan, 2002, as cited in Abdullah et al., 2016). According to Elder (1963), whether rural youngsters choose plantation or non-plantation employment, their life chances are heavily influenced by their education after high school.

With 40% of the global workforce involved in this industry, agriculture is the largest generator of employment worldwide (Aman, 2018; Pagesse, 2013). Since the Malaysian oil palm plantation industry is heavily dependent on human labour, job opportunities were naturally created (Jaafar et al., 2021). Despite the fact that this industry has a number of employment prospects, local workers do not find it particularly appealing because they view it as a dirty, hazardous, and challenging one. People avoided this physically demanding work, especially on plantations, which led to a labour shortage (Mamat, 2010). Local workers, particularly young people, reported that working in the agricultural sector was taxing and exhausting (Man, 2008). Low wages, poor working conditions, and social stigma are also factors that discourage local workers from working in the plantation industry (Mahadi, 2015). In addition, foreign labourers are more productive and reliable, less demanding, and cheaper in comparison to the locals (Mahadi, 2015).

Gidarakou (1999) mentioned that lack of expertise or knowledge is one of the causes, contributing to the lessening of the attraction of the locals, especially youth, to work in the oil palm plantation sector. Suhana et al. (2016) found that attitudes also have a significant influence on local workers' involvement in the sector. Several studies have backed up the study's findings (Ali et al., 2020; Ishak et al., 2021). Heavy workload and high pay were shown to be the main deterrents for local youth from working in oil palm plantations in the study by Ayob et al. (2015). Apart from that, certain activities in oil palm plantations, such as harvesting and FFB collection, managing an oil palm plantation, loading and unloading fruit, and applying fertilizer, are considered heavy and dirty. Therefore, it is believed that the adoption of mechanisation would lighten the workload of plantation workers and would attract more local workers to join the plantation sector. Having difficulty in applying for loan amenities from the financial institution due to a low salary and unstable income is also a factor that contributes to the reluctance of local workers to work in the plantations, and this may be a compelling reason for young people to seek employment with a steady salary (Abdullah et al., 2016).

A study on the factors influencing young people's employment in agriculture in Nigeria's Abia State was conducted by Agwu et al. in 2014. The study's findings led the authors to urge that efforts be made to increase plantation income because young people would prefer to work in non-farming industries for higher pay. In the study, it was discovered that the main factors influencing teenage agricultural labour involvement in Abia State, Nigeria, included educational attainment, non-agricultural income, parental occupation, the father's educational attainment, farm size, and the rate of mechanization. Ayob et al. (2015) found that on top of salary, there are other factors that will interest the locals to join oil palm plantations, which include the Employees' Provident Fund (EPF), the Social Security Organization (SOCSO), preschoolers (kindergarten), transportation to school, a medical facility, a home and furnishings, a housing programme, a compensation programme, a power supply, a clean water source, and a community centre. A study by Nnadi and Nnadi (2009) also found similar results to the study conducted by Agwu et al. (2014). They discovered that factors such as age, education, family size, farm size, annual farm income, and the quantity of information sources available are factors that determine sustainable labour. The findings of this study are consistent with those of the Surianshah et al. study from 2021, which discovered that demographic factors affect young people's participation in the oil palm plantation industry.

Shaari and Sannusi (2017) found that Malaysian adolescents today have a different view than previous generations. Because of that, new approaches and effective communication can create confidence and change their attitudes towards venturing into field jobs that have long been associated with being less appropriate and more challenging. Recognizing this fact, some plantation management companies have begun to change their approaches, change working hours, offer a better salary, and improve facilities at their plantations in order to attract more local workers to join the oil palm plantation industry.

Involvement of local labourers in the oil palm plantations, especially for crucial activities namely harvesting and FFB collection, is low, and based on the current situation, there is a tendency to continue employing foreign workers not only for the

crucial activity but for other field activities due to the lack of interest from the local labour and also the retirement of senior workers. Hence, local workers could be the best replacement to lessen the reliance on foreign labour, so estate owners and the government need to find a solution. Most of the recent studies focus on the participation or perception of local youth (15–40 years old) towards a career in oil palm plantations, but there are few studies on the participation of local workers who are older than 40 years old. Therefore, the objective of the study is to identify factors affecting local workers over the age of 40 who have joined the oil palm plantation sector (excluding independent smallholders) and remain employed in the sector.

In summary, although a wealth of studies have investigated the factors affecting local participation in oil palm plantations, little investigation has been undertaken into the indicator for workers over the age of 40 to remain working throughout the oil palm plantation. The purpose of this study, therefore, is to fill the empirical gap in the literature by differentiating local workers by age category. The objective will be addressed by applying exploratory factor analysis using primary data obtained through the distribution of questionnaires and face-to-face interviews. The next section specifies the data and methods employed in this investigation. The anticipated outcomes are shown in the next section. The final section brings everything to a close and makes some suggestions.

2. Methodology

2.1. Material

The study used a survey tool to determine factors influencing local workers who are over 40 years old to work and continue working in oil palm plantations. The first survey was carried out through the mail, and questionnaires were sent to all oil palm plantations in Malaysia (4576 plantations). The objective of the mail survey was to gather information on local workers who are over 40 years old and still working in the oil palm plantations. The second survey was conducted through face-to-face interviews with respondents who had been identified through the first survey. Before conducting the face-to-face survey, a set of coded, structured questions with five components was created. The first and second sections were on sociodemographic. The third section was to ascertain the variables that caused them to venture into the oil palm plantations and the factors that caused them to continue working in the sector. The fourth section was to measure their level of satisfaction with the income and facilities provided by the employers, and the fifth section was about their views on the needs and facilities that should be provided or improved by employers in order to attract more local workers to work in the oil palm plantations. To measure the indicated factors and perspectives in the third, fourth, and fifth parts, a five-point Likert-type scale ranging from “1” (strongly disagree or dissatisfied) to “5” (strongly agree or satisfied) was employed.

2.2. Method

The total number of respondents involved in this study was 414, and a purposive sampling technique was used in selecting the respondents based on the information

gathered in the first stage. A total of 414 respondents were chosen from the eight estates visited, which were in Perak, Kedah, Pahang, Selangor, Kelantan, Johor, Negeri Sembilan, and Terengganu. The breakdown of the respondents according to state is shown in **Table 1** as follows:

Table 1. Numbers of respondents by state.

State	Total	Percentage (%)
Perak	101	24.4
Kedah	58	14.0
Pahang	58	14.0
Selangor	52	12.6
Kelantan	49	11.8
Johor	41	9.9
Negeri Sembilan	31	7.5
Terengganu	24	5.8
Total	414	100.0

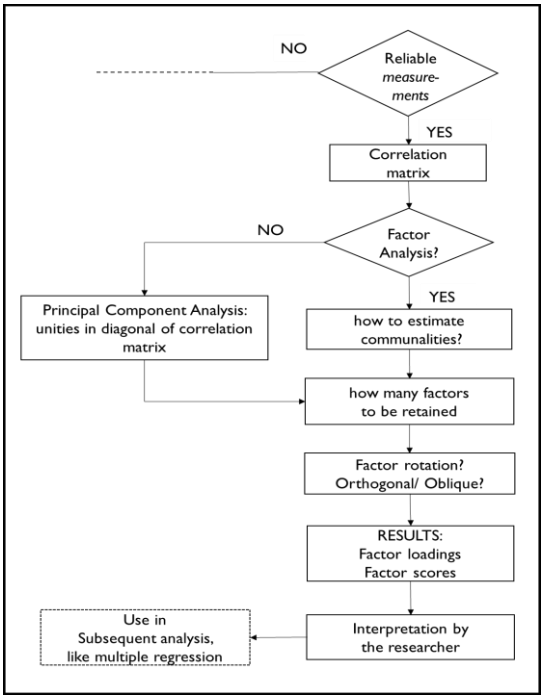

Figure 5. An outline of the procedures in factor analysis.
Source: Rietveld and Van Hout (1993).

The highest number of respondents was in Perak, with 101 workers, which represented about 24.4% of the total respondents, followed by Kedah and Pahang with 58 workers each (14.0%). The lowest number of respondents was in Terengganu, which was 24 workers, and it represented around 5.8% of the total respondents. The respondents were local workers who are over 40 years old and work in oil palm estates without taking into account office workers such as managers, assistant managers, clerks, and others. For data analysis, descriptive and EFA (exploratory factor analysis) techniques were applied in the following to fulfil the objective of the study.

Researchers use EFA to identify the number of variables that are influenced by different factors and to determine which variables "go together." (DeCoster, 1998; Yong and Pearce, 2013). In **Figure 5**, the flow diagram for the factor analysis process is repeated. Reliable measurement, a correlation matrix, factor analysis, the number of factors to be retained, factor rotation, factor loadings, and the interpretation of the results are the seven basic phases.

To assess if the data are suitable for factor analysis, three factors must be taken into consideration (Chan and Idris, 2017). Sample size, factorability of the correlation matrix, and the Bartlett's Test of Sphericity (BTS) or Kaiser-Meyer-Olkin (KMO) are the three factors. Hair et al. (2010) recommended that sample sizes be no less than 100 or above. For factor analysis, Tabachnick and Fidell (2007) recommended requiring at least 300 cases. The number of sample sizes should, according to Chua (2014) and MacCallum et al. (1999), as quoted in Chan and Idris (2017), be five times as large as the number of variables. The suggested sample size for doing EFA is at least 300 participants, and the variables that are subject to factor analysis should have at least 5 to 10 observations, according to Comrey and Lee (1992), as mentioned in Yong and Pearce (2013). Based on these justifications, the study's sample size of 414 respondents was sufficient. The formula for the KMO measure of sampling adequacy is as follows:

$$KMO_j = \frac{\sum_{i \neq j} R_{ij}^2}{\sum_{i \neq j} R_{ij}^2 + \sum_{i \neq j} U_{ij}^2}$$

where R_{ij} is the correlation matrix and U_{ij} is the partial covariance matrix. The KMO value varies from 0 to 1. The KMO values between 0.8 and 1.0 indicate the sampling is adequate. KMO values between 0.7 and 0.79 are middling, and values between 0.6 and 0.69 are mediocre. KMO values less than 0.6 indicate the sampling is not adequate and remedial action should be taken. If the value is less than 0.5, the results of the factor analysis undoubtedly won't be very suitable for the analysis of the data (Shrestha, 2021).

Sampling adequacy is measured based on the KMO value, and sufficient sampling is achieved if the value is greater than 0.6 to carry out factor analysis (Hair et al., 2010; Pallant, 2000; Tabachnick and Fidell, 2007). The BTS was used to determine whether or not the original correlation matrix was an identity matrix. The original correlation matrix is an identity matrix for this test, which is the null hypothesis. If the test is significant at a level of 0.05 or higher, the null hypothesis will be rejected. The BTS are:

$$x^2 = -\left(n - 1\frac{2p+5}{6}\right) \times ln|R|$$

where n denotes the overall size, p denotes the number of variables, and R denotes the correlation matrix. Typically, KMO and BTS tests are used to determine whether the sampling was sufficient to move forwards with factor analysis (Maat et al., 2011). To assess the internal consistency or reliability, the Cronbach's alpha reliability test was conducted to assess the reliability of summarising rating scales and to demonstrate whether constructed or adopted scales are fit to fulfil the objective of the study (Cronbach, 1951, as cited in Jerry et al., 2017; Taber, 2018). The reliability index ranges from 0 (= 0) to 1 (= 1). More reliability is indicated by a high alpha value (Chan

and Idris, 2017). For instruments with 10 or more components, Pallant (2000) states that an index alpha of 0.7 or higher is preferable. According to Taber (2018), alpha values between 0.45 and 0.98 are considered acceptable.

3. Results and discussion

3.1. Descriptive analysis

A total of 2540, or 55.5%, of estates responded to the questionnaire, and it was found that most of the local workers who are over 40 years old are employed as field workers and general workers, i.e., 6562 and 5663, respectively (**Table 2**). This data allowed for the selection and successful interviewing of a total of 414 respondents.

Table 2. Number of workers in oil palm plantations by job category.

Age	Gender	General Mandore	Harvesting Mandore	Harvester & Collector	Field Workers	General Workers
> 40 years	Male	1445	1112	1667	3671	3778
	Female	285	54	101	2891	1885
Total for > 40 years		1730	1166	1768	6562	5663

There were both male and female respondents, with the majority of respondents (57.2%) being male. Because it has the highest frequency of 133, the majority of respondents were between the ages of 41 and 45 (**Table 3**). However, about 23.9% of the respondents were older than 55, and they can be considered elderly. The Malays were the highest respondents, making up 58.9% of the total respondents, and this is expected as the majority of workers in oil palm plantations are Malays. 92.8% of respondents reported being married, with the remaining respondents being either single or in a split relationship. The bulk of the respondents (66.6%) had only completed elementary school and held a Lower Certificate of Education (LCE) certificate, indicating that the respondents had fairly low levels of education. In terms of their current position, 44.9% of the respondents were field workers, 23.9% were general workers, and the rest were harvesters, FFB collectors, and mandoras. The following are the results of a survey conducted by a member of the public. Surprisingly, this study found that there were respondents who were very loyal to their current employers, and they had worked in the estates for 40 years or more. Most respondents in the sample in the study were staying in the quarters that were provided by the plantation management.

Table 3. Statistical profile of respondents.

	Profile	Frequency (*n*)	Percentage (%)
Gender	Male	237	57.2
	Female	177	42.8
Age	41–45	133	32.1
	46–50	95	22.9
	51–55	87	21.0
	> 55	99	23.9

Table 3. (*Continued*).

	Profile	Frequency (*n*)	Percentage (%)
Race	Malay	244	58.9
	Indian	157	37.9
	Chinese	2	0.5
	Others	11	2.7
Relationship Status	Single	11	2.7
	Married	384	92.8
	Separated	19	4.6
Highest Education Level	No Education	43	10.4
	Primary School	162	39.1
	Lower Certificate of Education (LCE)	114	27.5
	Malaysian Certificate of Education (MCE)	91	22.0
	Higher School Certificate Cambridge (HSC)	4	1.0
Current Job Category	General Mandore	34	8.2
	Harvesting Mandore	36	8.7
	Harvester & FFB Collector	59	14.3
	Field Worker	186	44.9
	General Worker	99	23.9
Working Experience with the Current Estate	1–10	133	32.1
	11–20	129	31.2
	21–30	97	23.4
	30–40	43	10.4
	> 40	12	2.9
Stay in the quarter provided by the plantation	Yes	244	58.9
	No	170	41.1

3.2. Indicators influencing respondents' decisions to work and stay in oil palm plantations

There were 11 indicators that are expected to influence respondents to work and continue working in oil palm plantations. The indicators were constructed based on studies by Ayob et al. (2015) and Kamaruddin et al. (2018). Among the indicators, "distance of the plantation close to the residence" and "interest in working in agriculture" were the two main indicators that recorded the highest mean score, i.e., 4.3 (**Table 4**). "In accordance with qualifications or skills," "last career priority," and "basic amenities are provided" were the indicators that recorded a mean score higher than 3.9. The remaining indicators, namely "total income received," "wage rate paid by the plantation," "total allowance received," "looking for experience," "friends' influence," and "family influence," recorded a mean score of less than 3.9.

Table 4. Summary of indicators influences respondents to venture and sustain in the oil palm plantation sector.

Indicators	Percentage (%)					Mean	SD
	1	2	3	4	5		
Distance of the plantation close to the residence	4.1	1.4	4.1	38.2	52.2	4.3	0.9
Interest in working in agriculture	1.4	1.0	9.4	39.4	48.8	4.3	0.8
In accordance with qualifications/skills	3.6	2.7	11.6	46.9	35.3	4.1	0.9
Last career priority	5.8	7.5	9.7	32.4	44.7	4.0	1.2
Basic amenities are provided	8.7	3.6	13.8	30.0	44.0	4.0	1.2
Total income received	3.1	11.4	16.7	37.4	31.4	3.8	1.1
Wage rate paid by the plantation	3.3	11.1	16.7	39.6	29.2	3.8	1.1
Total allowance received	7.2	9.4	17.6	37.2	26.8	3.7	1.2
Looking for experience	10.9	16.2	10.1	30.9	31.9	3.6	1.5
Friends influence	38.2	25.6	10.4	15.5	10.4	2.3	1.4
Family influence	34.3	13.0	15.2	19.1	18.4	2.7	1.7

Note: A Likert-type scale with the values 1 for strongly disagree and 5 for strongly agree.

3.3. Correlation matrix

The correlation matrix is one of the most popular statistical techniques in EFA. It is employed to ascertain how several factors relate to one another (Henson and Roberts, 2006). If there are several significant correlations that exceed 0.30, EFA may not be appropriate (Hair et al., 2010; Tabachnick and Fidell, 2001; Watkins, 2018). As shown in **Table 5**, there were two clusters of variables with high intercorrelations. The first cluster was "looking for experience," followed by "in accordance with qualifications or skills," "last job option," and "interest in working in agriculture." The second cluster was "stratified with income" with "stratified with wage rate" and "stratified with allowance," as well as "stratified with allowance" with "stratified with wage rate." The correlation matrix revealed that the variables were intercorrelated but not highly correlated. If the correlation is too high, then there might be a singularity and/or very high multicollinearity. As a result, it would be difficult to determine the specific way that the variables contributed to a factor (Field, 2000). There was no multicollinearity because the determinant of this matrix was 0.059, which is more than 0.00001. (Field, 2000).

Table 5. Correlation matrix.

		Friends influence	Looking for experience	Family influence	Last career priority	Interest in working in agriculture	Total income received	wage rate paid by plantation	Total allowance received
Correlation	Friends influence	1.000	0.250	0.284	0.075	0.207	0.054	0.076	0.041
	Looking for experience	0.252	1.000	0.076	0.342	0.379	0.131	0.209	0.213
	Family influence	0.284	0.076	1.000	0.048	0.223	0.005	0.001	0.048
	Last career priority	0.075	0.342	0.048	1.000	0.275	0.085	0.119	0.091
	Interest in working in agriculture	0.207	0.379	0.223	0.275	1.000	0.102	0.137	0.154
	Total income received	0.043	0.131	0.005	0.085	0.102	1.000	0.840	0.612
	Wage rate paid by the plantation	0.071	0.209	0.001	0.119	0.137	0.840	1.000	0.638
	Total allowance received	0.041	0.213	0.048	0.091	0.154	0.612	0.638	1.000

3.4. Assessment using Kaiser-Meyer-Olkin and bartlett

Table 6 shows a value for the KMO Measure of Sampling Adequacy of 0.691, which is higher than the 0.5 minimum threshold mentioned above (Williams and Onsman, 2010). It demonstrated that there was evidence of a significant and appropriate correlation among the indicators in this study and that the sample size was adequate to evaluate the factor structure. The test was significant at 0.05. The BTS revealed that the null hypothesis was rejected. It was demonstrated that the initial correlation matrix was not an identity matrix.

Table 6. An overview of the Kaiser-Meyer-Olkin and bartlett assessment.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin (Measure of Sampling Adequacy)		0.691
Bartlett's Test of Sphericity	Approx. Chi-Square	954.622
	df	28
	Sig.	0.000

Based on the overall findings in **Tables 5** and **6**, EFA was then conducted using 11 indicators using principal component analysis extraction and varimax rotation. Principal component analysis is used to extract the most variation from each indicator's data set and convert many variables into a smaller number of indicators (Tabachnick and Fidell, 2007). While unrotated factors are unclear, rotation of the factors improves understanding (Yong and Pearce, 2013). The rotation seeks to achieve a basic structure that is ideal in that it optimizes the amount of high loading on each indicator while attempting to have each indicator depend on as few factors as feasible (Rummel, 1970). In this study, variable rotation was used instead of quadratic rotation. In Varimax, modest loadings are made even smaller while the number of variables with high loadings on each component is reduced (Yong and Pearce, 2013).

The number of components to be preserved was determined using the eigenvalues and scree test (also known as the scree plot). This study made use of Kaiser's criterion (Kaiser, 1960, as mentioned in Yong and Pearce, 2013). The factors above the eigenvalue of 1 are kept based on the criterion. There are factors and eigenvalues in the Scree Test (Cattell, 1978, as cited in Yong and Pearce, 2013). The data points above the break represent the number of components to be preserved (i.e., the point of inflexion). 200 samples are the bare minimum required for the screen test to be reliable (Yong and Pearce, 2013). Considering the eigenvalues that were above the data break, three factors were significant and retained (**Table 7** and **Figure 6**), and the three factors explain 67.682 percent of the variance.

According to the eigenvalues, the first component accounted for 32.971 percent of the variance, while the second and third factors each accounted for 20.990 and 13.721 percent. There was no difference in the percentage variation between the Rotation Sums of Squared Loading and the Extraction Sums of Squared Loading, which account for 67.682 percent. Varimax rotation caused the percentage of variance for factor 1 to decrease from 32.971percent to 30.052 percent, the percentage of variance for factor 2 to decrease from 20.990 percent to 20.640 percent, and the percentage of variance for factor 3 to increase from 13.721 percent to 16.990 percent.

All 8 indicators were kept since they all had factor loadings of at least 0.4 according to the rotated component matrix.

Table 7. Summary of total variance explained in exploratory factor analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative	Total	% of variance	Cumulative
1	2.638	32.971	32.971	2.638	32.971	32.971	2.404	30.052	30.052
2	1.679	20.990	53.961	1.679	20.990	53.961	1.651	20.640	50.691
3	1.098	13.721	67.682	1.098	13.721	67.682	1.359	16.990	67.682
4	0.765	9.566	77.248						
5	0.684	8.552	85.800						
6	0.558	6.972	92.772						
7	0.423	5.285	98.057						
8	0.155	1.943	100.000						

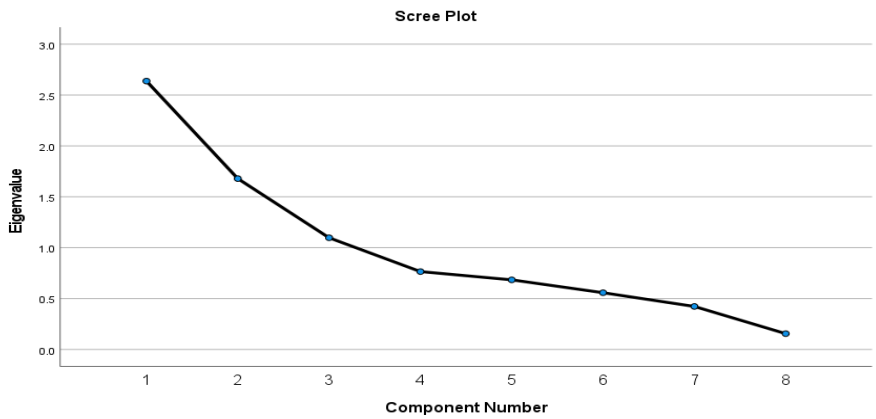

Figure 6. Scree plot.

According to the EFA's findings, there were three factors influencing local workers over the age of 40 to work and continue working in oil palm plantations. The factors were labelled as "income factor," "internal factor," and "external factor" (**Table 8**). For the income factor, there were three indicators: total income received, wage rate paid by the plantation, and total allowance received. The internal factor included three indicators: looking for experience, last career priority, and interest in working in the plantation sector; the external factor included two indicators: friends' and family's influence. The most important and significant factor was the income factor, and the finding was in line with the outcomes of the earlier research (Abdullah et al., 2016; Ayob et al., 2015). Factor loading for all indicators in the factor was higher than 0.8. The percentage variance explained by the factor after rotation was 32.971 percent, and the Cronbach Alpha was high at 0.870. The internal factor was the second important factor, and the amount of variance that the component explained was 20.990 percent, and the value of Cronbach's alpha was 0.579. Factor loadings for all indicators in this factor were in the range of 0.6–0.7. For the external factor, the percentage variance explained was 13.721 percent, and the factor loading for all

indicators in this factor was between 0.7 and 0.8. The value of Cronbach's alpha was 0.441.

Table 8. Summary of EFA.

Factor	Indicator	Communality Extraction	Factor Loading	Eigenvalue	% of Variance explained (rotation)	Cronbach Alpha
Income Factor	Total income received	0.852	0.924	2.638	32.971	0.870
	Wage rate paid by plantation	0.866	0.922			
	Total allowance received	0.684	0.818			
Internal Factor	Looking for experience	0.614	0.751	1.679	20.990	0.597
	Last career priority	0.628	0.783			
	Interest in working in the plantation sector	0.531	0.606			
External Factor	Friends influence	0.664	0.815	1.098	13.721	0.441
	Family influence	0.574	0.737			
Cumulative % of variance explained					67.682	

4. Conclusion

The oil palm plantation sector will continue to depend on foreign workers if local workers continue to be uninterested in participating in the sector. Several studies have been conducted to identify the factors that cause local workers, especially youths, to not be interested in participating in the sector. To meet the research gap, this study was carried out to identify factors that influence local workers over the age of 40 to work and continue working in oil palm plantations. This survey included a total of 414 respondents. Based on EFA, three factors were identified as important in influencing local workers over the age of 40 to work and continue working in oil palm plantations. The factors were the income factor, internal factor, and external factor, and among the factors, income was the most significant factor as the percentage variance explained by the factor was 32.971 percent and Cronbach's alpha was high at 0.870. There were three indicators in the factors: total income received, wage rate paid by the plantation, and total allowance received. The findings of this research are consistent with previous studies that found that the competitive income factor is the main factor that can attract local workers to participate in the plantation sector.

5. Recommendation

The investigation recommended that the oil palm plantation management pay more attention to elements of income such as basic salary, wage rate paid to the workers (for piece rate), and allowance given to the workers since these elements contribute to the monthly total income received by the workers and can attract and retain more local workers to work in the plantations. Based on this study, the average income received by plantation workers in oil palm plantations for the mandore category is in the range of RM1500–RM3000 per month, harvesters (RM1500–RM3800 per month), and plantation workers (RM1200–RM1900 per month). With the respondents' level of education, which is mostly primary school and LCE, most of them are satisfied with their level of income. In addition, the plantation companies are

urged to improve amenities such as quarters and infrastructure facilities, as they are also among the indicators that can attract local workers to join the plantation sector. Plantation management may also consider an income security plan for local workers so that they are eligible to apply for loans.

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