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Analyzing the Participation Factors of Local Labour in the Malaysian Construction Industry

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Abstract: The dependency of the Malaysian construction industry on foreign workers affected the productivity of the industry. Sustainable supply of sufficient talent is required in order for Malaysia to support the aim that had been targeted under CITP, where productivity is one of the thrusts in the transformation program for the industry. However, the hardship in the recruitment of local talent has worsened the scenario and caused the industry player to prefer hiring foreign workers compared to local labour. Thus, the aim of the study is to analyse the participation factors of local labour in the Malaysian construction industry. This paper presents a survey result of 45 respondents which involves the industry player around Petaling District in Selangor. The findings from this research summarise the participation factor of local labour in the Malaysian construction industry. It is hoped that the findings of this study may assist in stimulating the number of local labours in the construction industry through better productivity among the construction stakeholders especially the contractors in conjunction with the CITP strategic thrust.

Keywords: Construction industry, local labour, participation, productivity

1. Introduction

The rise of dependency on foreign workers has created various problems in the construction industry. Contractors lament of dissatisfactory levels of productivity by foreign workers, the outflow of local currency, the transfer of skill and knowledge by foreign workers to their country, the unemployment of local people and social ills (Hamid, Singh, Yusof & Abdullah, 2011). Malaysia realises that the reliance on foreign workers may impact the result of the country's aim to become a high-income country by 2020 (CIDB, 2017). This would be worse in the future as the industry is unable to upgrade or improve its workers, which will jeopardise the quality of production and the construction itself (Yaro, Awumbila & Teye, 2015).

Productivity and quality control are reduced due to most foreign workers are unskilled in the construction industry (Abdul-Rahman, Wang & Low, 2012). Marhani et. al., (2012) stated that, if foreign workers lacked the required skill for the jobs, the productivity of the work would be reduced. Due to that fact, productivity was highlighted as one of the critical success factors for CIMP (CIDB, 2015). In order to improve the construction industry by 2020, the Construction Industry Development Board (CIDB) had introduced the Construction Industry Transformation Program (CITP) to roll out in a span of five years beginning 2016 until 2020 with four thrusts that lead to transformation which are; Quality, Safety and Professionalism, Environmental Sustainability, Productivity, and Internationalization. CIDB enhanced the regulatory and development coordination for the industry to support the delivery of the CITP (Rakwan, 2015). This program contributes to the construction industry in terms of GDP growth. Saadi, Ismail and Alias (2016) stated that the program will ensure the continuity and consistency of the construction industry with the national agenda in achieving the 11th Malaysia Plan. Therefore, according to Yeap (2018) in the complex Malaysian economy, the

country requires a policy to ensure an adaptable workforce and a sustainable supply of well-educated and experienced talent.

2. Background of The Study

According to the New Economic Model (NEM) document, the supply of Malaysian local labour is not only low compared to the foreign labour, the numbers had dropped rapidly due to the outmigration of Malaysians to countries that offer better opportunities and returns (Narayan & Lai, 2014). Carpio et al., (2015) stated that, in 2007, only 106 out of 823 large companies in the construction industry operated without employing foreign workers. This is evident to the hardship in recruiting local labour and had forced employers to recruit foreigners to work in the construction industry (Kanapathy, 2001). Plus, it is challenging to produce human capital resource that is knowledgeable and world-class to fit the requirements of the construction industry in Malaysia (Hanapi & Nordin, 2014).

Besides, the construction industry is well-known for the low salaries, the difficult working environment and the limited opportunity for career development (Carpio et al., 2015). The level of interest among local workers is worsened when the construction industry is labelled with the 3D syndrome, which is namely difficult, dirty, and dangerous, which adversely impacted the urgent need for local labour in the construction industry (Hanafi et. al., 2015). However, the most crucial factor affecting labour productivity in the construction industry is the incentive program provided for the labourer (Sigh, 2010; El-Gohary and Aziz, 2014). According to Hamid, Singh, Yusof, Yusof and Mustafa (2011) the factors that aggravated the issue in shortage of local labour supply are the slow process of mechanisation and the reluctance of the locals to participate in the construction industry. Hence, the aim of this study is to analyse the participation factors of local labour in the Malaysian construction industry.

3. Methodology

A questionnaire survey was conducted to achieve the two objectives of this study which are; (i) to investigate the factors hindering the participation of local labour in the construction industry and (ii) to propose ways to increase the number of participations of local labour in the construction industry.

The closed-ended questionnaire was drafted into three sections. The first section comprised questions related to the demography of the respondents whereas in the second section, the respondents were asked about the factors hindering the participation of local labour in the construction industry, while the third section includes questions on the ways to increase the number of participation of local labour in the construction industry. The Likert scale is used to indicate the opinion level of the variables or factors in the questionnaires (Halim, 2016) on five-point ordinal measure from 'Strongly Disagree' to 'Strongly Agree'.

According to DOSM (2016), the distribution of the population in Malaysia are more focused on the Selangor area; specifically, the Klang Valley and Selangor which have high employment rates with the highest percentage in the construction sector, and was selected as the targeted area for sampling. Furthermore, residential projects were chosen for sampling due to the higher number of projects works done in Selangor compared to other sites. However, this study focused on the 28 high rise residential buildings as referred to a list given by CIDB which included condominiums, service apartments and flats around the Petaling District which were located in the heart of Selangor.

4. Findings

4.1 Response Rate

There are 28 high rise projects in the Petaling District that have been identified from the list provided by the Construction Industry Development Board (CIDB). However, out of the 28 projects, only nine projects were involved and contributed to the completion of the questionnaires (32% response rate) which involved 45 respondents (5 respondents per projects) as shown in Table 1. The total of 45 responses gathered were analysed using Statistical Package for the Social Science (SPSS) software version 20.0.

Table 1 - Total Respondents Contribution

Respondent	Identify	Contributed	Total respondents
Construction project	28 projects	9 projects	45 respondents
Total			45 respondents

4.2 Section A: Demography

Table 2 shows the gender of the respondents of the questionnaire and the quantity of respondents of each gender involved in this research. This table shows that most of the respondents were Male which represent 71.1 percent of the total respondents or 32 respondents out of 45. On the second rank, female respondents were recorded with 13 respondents which represented 28.9 percent from the total of the respondents.

Table 2 - Distribution of Gender

Question A1	Gender	Frequency	Percentage (%)	Rank
1	Male	32	71.1	1
2	Female	13	28.9	2
	Total	45	100.0%	

Table 3 shows the age of respondents to this survey. There were 27 respondents in the range of age between 18 to 24 years old. This represented 60 percent of the total of the respondents. On the second rank, there were 15 respondents from the range of age between 25 to 34 years which represented 33.3 percent from the total number of respondents. However, there were only 6.7 percent (3 respondents) which represented respondents above the age of 35 years old. Therefore, the respondents were mostly in the range of 18-24 years old which is also the age bracket of the highest number of unemployment rate in Malaysia as stated in Department of Statistics Malaysia (DOSM) (2016).

Table 3 - Distribution of Age

Question A2	Age	Frequency	Percentage	Rank
1	18 – 24 years	27	60	1
2	25 – 34 years	15	33.3	2
3	35 years above	3	6.7	3
	Total	45	100.0	

Table 4 shows the level of education of the respondents. As per survey, 100 percent of all the respondents have tertiary level education. Specifically, 53.3 percent (24 respondents) have Degree level education, followed by 40 percent with Diploma level education (18 respondents) and only 6.7 percent (3 respondents) with Masters level education.

Table 4 - Level of Education

Question A3	Level of Education	Frequency	Percentage	Rank
1	Degree	24	53.3	1
2	Diploma	18	40	2
3	Master	3	6.7	3
	Total	45	100	

In addition to that, Table 5 shows the designation of the respondents involved in this survey. From the results, it showed that 20 percent (15 respondents) from the total respondents are Engineer, followed by 12 percent (25 respondents) and 3.2 percent (4 respondents) are Site Supervisor and Manager, respectively. Lastly, 0.8% (1 respondent) are from other designations (Safety Supervisor).

Table 5 - Job Designation

Question A8	Job Designation	Frequency	Percentage	Rank
1	Engineer	25	20	1
2	Site Supervisor	15	12	2
3	Manager	4	3.2	3
4	Others	1	0.8	4
	Total	45	36	

In Table 6, the data shows the respondents' year of experience in the construction of high-rise buildings. The highest number of respondents were indicated in the table which shows the range from one to five years represented by 28.8 percent from the total respondents. Furthermore, it is followed by the range of above ten years with five respondents representing 4 percent and lastly the range six to ten years which was at 4 percent with five respondents as total. Thus, based on the level of education, designation, and year of experience of the respondents, it is undoubtedly that the respondents were suitable for the survey conducted.

Table 6 - Years of Experience

Question A9	Years of Experience	Frequency	Percentage (%)	Rank
1	1 – 5 years	36	28.8	1
2	6 – 10 years	4	3.2	3
3	10 years above	5	4.0	2
	Total	45	36.0	

Table 7 presents the respondents' monthly income in the Ringgit Malaysia unit. From the data obtained, 29.6 percent (37 respondents) earned a monthly income from the range of 2000 to 5000 Ringgit Malaysia per month. Followed by 4 percent (five respondents) from the total respondents earning above 5000 Ringgit Malaysia and only 2.4 percent (three respondents) earned in the range of 1000 to 2000 Ringgit Malaysia. Thus, most of the respondents were from the middle-income range who earned from 2000 to 5000 Ringgit Malaysia per month.

Table 7 - Monthly Income

Question A10	Monthly Income (RM)	Frequency	Percentage (%)	Rank
1	600 - 1000	0	0	4
2	1000 – 2000	3	2.4	3
3	2000 – 5000	37	29.6	1
4	5000 above	5	4.0	2
	Total	45	36.0	

4.3 Section B: Factors Hindering the Participation of Local Labour in the Construction Industry

Table 8 below shows the factors that hinder the participation of local labour in the construction industry. The first rank with mean score of 4.18 is the monopoly of migrants in the construction industry, then followed by 3D factors (mean=4.10), loose labour policies of the industry (mean=4.08), low remuneration from the employers (4.04), low wage rate for local labour (mean=4.00), temporary employment status (mean=4.00), employers' preference towards hiring foreign labour (mean=3.93), long term employment (mean=3.82), demand for local labour is low (mean=3.72), unsuitable for higher education level (mean=3.56) and lastly, poor image of the construction industry (mean=3.50).

On the first rank, the respondents agreed that the monopoly of foreign workers in the construction industry is the main cause hindering local labour to participate in the industry. It has been in line as per stated by Abdul Rahman et al., (2012) where the availability of the foreign workers become one of the causes the locals hinder from the construction industry.

Next is the 3D factor known as difficult, dirty, and dangerous with the mean of 4.0960. The respondents agreed that difficult, dirty, and dangerous (3D) results in the discouraged participation of local labour in the construction industry. Local labour feels insecure working in an environment that is difficult, dirty, and dangerous. This is supported with a research by Hanafi et al., (2015) where the 3D syndrome causes the locals to lose interest in the construction industry.

Table 8 - Factors hindering the participation of local labour in the construction industry

Question B	Item	Mean	Rank	Result
5	Monopoly of migrants in the industry	4.18	1	Agree
6	3D factors (Difficult, Dirty, and Dangerous)	4.10	2	Agree
4	Loose labour policies of the industry	4.08	3	Agree
10	Low remuneration from the employers	4.04	4	Agree

1	Low wage rate for local labour	4.00	5	Agree
11	Temporary employment status (Contracts / Project Based)	4.00	5	Agree
9	Employers' preference towards hiring foreign labour	3.93	7	Agree
3	Long term employment prospect (Limited career development)	3.82	8	Agree
2	Low demand for local labour	3.72	9	Agree
7	Unsuitable for higher education level	3.56	10	Uncertain
8	Poor image of the construction industry	3.50	11	Uncertain

On the third rank, with a mean score of 4.08, the respondents agreed that the loose labour policies become one of the factors hindering the participation of local labour in the construction industry. The loose labour policies caused an uncontrollable number of migrants into Malaysia which caused a monopoly of the foreign workers in key economic sectors including the construction industry. This is in line as per stated by Narayan and Lai (2012), there is confusion in the industry when there is poor administration, enforcement, and frequent changes in policy direction.

The fourth in rank which indicated a 4.04 mean value resulted from low remuneration from the employers which would distract local labour from participating in the construction industry. As per mentioned by Carpio et al., (2015) the industry only relies on foreign workers due to low value-added activities by the industry and this will cause local labour to hinder from participating in the construction industry.

Temporary employment status and low wage rate for local labour are represented in the fifth rank with a mean score 4.0. The respondents agreed that the employment status which is usually 'Temporary' caused lack of interest for participation by the local labour. This is as per stated by Zaki et. al., (2016), locals rejected the offers by the construction industry due to the temporary job status, such as working based on contract and that locals preferred a job with 'Permanent' status that comes with a stable income and a more secure career path.

Furthermore, on the seventh rank, with a mean score 3.928, the respondents agreed that the employer's preference towards foreign labour is among the factors. The availability of cheap and easily exploited foreign workers made the employers prefer foreign workers instead of local labour. This fact is supported by Dench et al., (2006) the general attitude of foreign workers such as motivated, reliable, and committed towards the jobs becomes a disadvantage for the local labour.

Meanwhile on the eighth rank at a mean score 3.816, local labour hinders from participating in the construction industry due to unavailable long-term employment prospects which causes limited upward career progress in the future. Abdul-Rahman et al., (2012) stated in his research that the unavailability of long-term employment prospects caused the industry to become unattractive to the local labour, however it will attract more foreign workers.

Next, with a mean score 3.72, the demand for local labour is low and placed ninth on the rank among other factors. Associated with low wages rates and employers' refusal to improve the work condition (Abdul-Rahman et al., 2012), the respondents agreed that the employers prefer to employ foreign workers rather than local labour.

On the tenth rank, respondents were uncertain with the factor unsuitable for higher education level resulted in a mean score of 3.56. It contradicts with the research by Carpio et al., (2015) which stated the widening gap of educational attainment between Malaysian workers and foreign workers caused foreign workers to fill the gap and close the shortage of labour.

Lastly, with a mean score of 3.496, the respondents were uncertain with the poor image of the construction industry resulting in the lack of participation by local labour in the construction industry. As per research by Abdul Rahman et al., (2012) the negativity revolving around the construction industry had become more serious when the locals perceived the image of the construction industry as poor. On top of that, this finding contradicts with the research by Hamid et al., (2013) that the perception of Malaysians towards the sector as low status when compared to other sectors.

4.4 Section C: The Ways to Increase the Number of Participation of Local Labour

Table 9 shows the results of ways to increase the number of participations of local labour in the construction industry in Malaysia. The result shows the enforcement of labour policy for the construction industry at first rank with a mean score of 4.26, then followed by enhanced education and training for the industry (mean=4.21), incentive programme for local participants (mean=4.18), strengthening the governance structure (mean=4.17), enhanced workplace safety practice and procedure (mean=4.15), non-monetary compensation for local labour (mean=4.14), raises of wage rate for local labour in the industry (mean=4.14), improving the work condition at project site (mean=4.12), Available job prospects for local labour in the industry (mean=4.11), and lastly, implementation of Industrial Building System (IBS) (mean=3.91).

First ranked is the enforcement of labour policy for the industry. This result is in line with the statement by Abdul-Rahman et al., (2012) that by changing the recruitment policies, it will reduce the attractiveness of the industry in the view of immigrants and discourage the employment of foreign workers. Thus, the local labour would benefit with well-

aligned, coordinated and consistent policies towards the industry (Wei et al., 2018). Second rank is enhanced education and training for the construction industry. The finding is similar to Narayan and Lai (2014) that by investing in skill formation among locals through education and training, will help hasten the construction industry. The efficiency of the enhancement will close the gap among Malaysian and foreign workers in high to low skilled jobs in the construction industry.

The third in rank is the incentive programme towards local participants. As per mentioned by Abdul-Rahman et al., (2012) special economic initiatives need to be provided to local labour to encourage participation in the construction industry. Therefore, the initiatives will attract skilled Malaysian workers to participate and advance their career in the industry. Fourth in rank is by strengthening the governance structure. This result is in line with Abdul-Rahman et al., (2012) that by strengthening the governance structure, the government could minimise the impact caused by foreign workers and attract more local labour to the construction industry.

Table 9 - The Ways to Increase the Number of Participation Local Labour

Question C	Item	Mean	Rank	Result
5	Enforcement of labour policy for the industry	4.26	1	Agree
4	Enhanced education & training for the industry	4.21	2	Agree
3	Incentive programme for local participants	4.18	3	Agree
9	Strengthening the governance structure	4.17	4	Agree
2	Enhanced workplace safety practice and procedure	4.15	5	Agree
10	Non – monetary compensation (Performance & Reward system)	4.14	6	Agree
1	Raise of wage rate for local labour in industry	4.14	6	Agree
6	Improving work condition at project site (good facilities)	4.12	8	Agree
7	Awareness of career opportunities for local labour in the industry	4.11	9	Agree
8	Implementation of Industrial Building System (IBS)	3.91	10	Agree

Fifth in rank is by enhancing the safety practice and work procedure at the construction site. This result is supported by the research done by Mazlan et al., (2013) where the employers need to enhance the safety practice and work procedure at the workplace for the students to take pride in their involvement in the construction industry. Sixth in rank is non-monetary compensation for local labour. As per stated by San Ong and Teh (2012) the best way to retain, motivate and attract employees with competence, knowledge, and skills is to achieve the goals by a performance and reward system.

Seventh in rank is the raise of the wage rate for the local labour in the construction industry. The results are supported with the research by Narayan and Lai (2014) to make foreign workers non-viable, the upward rise of wage is needed to attract the local labour to the construction industry. Eighth in rank is improving the work condition at the project site. The results are in line with the statement by Aaronson et al., (2014) to restrain the trend of participation in forced labour, the employers need to take initiative to improve the work condition and make the job more prospective.

Ninth in rank is the awareness of career opportunities for local labour in the industry. This result is in line with Abdul-Rahman et al., (2012)'s statement to influence the locals towards the construction industry, the government needs to lead the awareness of career opportunities through campaigns. Lastly is the implementation of the Industrial Building System (IBS). This is supported by Halim et al., (2017) where the IBS can attract local labour interest thus increasing the level of productivity of the construction industry.

5. Conclusion

From the survey, the respondents agreed that the factors hindering the participation of local labour in the construction industry are low wage rate, low demand for local labour, non-prospective for long term employment, loose labour policies, monopoly of migrants 3D factors which is difficult, dirty and dangerous, employer's preference, low skilled perception, low remuneration and employment status. However, the respondents were uncertain with the factors unsuitable for higher education level and poor image of the industry causing local labour to hinder from participating in the construction industry itself.

Other than that, the results showed the ways to increase the number of participation of local labour by raising the wage rate, enhancing workplace safety practice and procedure, providing incentive program, education and training, enforcement of policy, improving the working condition, awareness of career opportunities, implementation of Industrial Building System (IBS), strengthening governance structure and non-monetary compensation for local labour..

6. Recommendation

This research is statistical data, which is limited to a small sample size and not an overall perception of the construction industry especially the response from other backgrounds of the construction field. Thus, a broader respondent list is needed so that wider results from data analysis can be gained and not limited to one sided perspective. That way, it will strengthen the variables in terms of validity and rationality of the research results.

Acknowledgement

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