The emerging of employment gap in the Malaysian construction industry

Abdul Rahim Abdul Hamid¹, Nur Inayah Mohd Khazid², Riduan Yunus³, Hazruwani A Halim⁴ and Amall Raihan Abdul Razak⁵
¹,²,⁴,⁵ Department of Structures and Materials, Faculty of Civil Engineering
Universiti Teknologi Malaysia, 81310 Johor Bahru, Johor, Malaysia.
³ Jamilus Research Centre, Faculty of Civil and Environmental, Department of
Building and Construction Engineering, Universiti Tun Hussein Onn Malaysia, Batu
Pahat, Johor, Malaysia.
E-mail: rahimhamid@utm.my

Abstract. Employment of young people is a big issue in the Malaysian construction industry. This is a common phenomenon not only in Malaysia but affected most developed and developing countries around the world. Sufficient workers are needed to cater to the robustness of the construction sector and to sustain the productivity that will boost the development demand. However, young people had difficulties to find decent employment in this industry due to lack of experience and skills among young people and some employer are more likely to hire foreign workers. The aim of this study is to examine the emerging of skill gaps in the Malaysian construction industry. The methodology adapted for this study comprise of primary and secondary data collection. The primary data had been collected from the questionnaire surveys on the professional within the construction industry. The data then were analyzed using the percentage score and the diagram such as bar chart had been used to visualize the results from the analysis. While, secondary data collected through literature review to gather information and important views from previous studies. The findings reveal that the construction industry prefer more than 30 years old skilled workers. Eventhou gh, the jobs could be filled by young people, but somehow, some barriers such as high risk, low wages, hard work and availability of foreign workers had distracted the involvement of young people in the construction industry.

1. Introduction
In year 2015 Malaysia faced a small economic downturn, however, the construction projects keep going on especially when the government announced a few big projects to be developed mostly located in Kuala Lumpur and Selangor. This indicates that the construction sector able to provide more employment opportunities for the people. In 2016, the construction sector’s share of GDP was 4.5% valued at RM50.1 billion and registered 7.4% output. This sector hired 1.25 million employees, which showed a drop of 4.4% from 1.31 million in the previous year. In the second quarter of 2017, the construction sector expanded by 8.3% due to civil engineering, construction activities and non-residential buildings. By 2020, the sector is expected to contribute 5.5% to GDP at RM327 billion and employing 1.2 million employees. Despite its smaller contribution, the construction sector continues to play a key role in transforming the economy through its multiplier effect on many industries by accelerating domestic economic activities and providing comprehensive high-end quality infrastructure [1]. Thus, construction sector able to provide the path for the employment of young people since according to Malaysian Industrial Development Finance (MIDF) the rate of unemployment edge up to 3.1% in January 2015. In August 2017, the number of unemployed persons i.e. those who do not have a job but are interested to work, recorded a year-on-year (YoY) rise of 0.3%, increasing from 515,200 in August 2016 to 516,900 this year. Compared to July 2017, the number dropped by 0.4% from 519,000. The unemployment rate i.e. the percentage of unemployed persons in the labour force, fell by 0.1 percentage point from 3.5% in August last year to 3.4% this year [2].
United Nations Educational, Scientific and Cultural Organization (UNESCO) defined young people or youth as among those who ages between 15 and 24 years. While in Malaysia, the definition of youth according to National Youth Development Policy, are those who ages between 15-40 years. However, the policy specified that youth development programs or activities should involve youth age of 18-25 years old. The youth unemployment rate in Malaysia was estimated to have reached 10.7% in 2015, more than three times higher than the national unemployment rate of 3.1%. Malaysia is among regional economies with an incidence of youth unemployment in the double-digits, despite a low overall unemployment rate. Youth represents more than half of total unemployed workers, despite only making up a third of the labour force. The youth are the most vulnerable to these trends; they are likely to be the last to be hired and the first to be made redundant, due to their lack of experience, higher information asymmetry on the labour market, and poor ability to communicate their skills effectively to employers [3]. Thus, there should be more room for the youth to participate in job market particularly in the construction sector.

Nowadays, young people had to bear with difficulties in finding decent employment. The main difficulties; chances of losing jobs during economy falls (“last in, first out”), specific barriers to entry which often cause by lack of experience and path dependence: early increase in unemployment lead to more subsequent unemployment [3-5]. In 2015, the unemployment rate expected to be higher because of slow economic growth. According to Malaysian Industrial Development Finance (MIDF) the unemployment rate increase to 3.1% in January that could be featured by high deflation in the construction sector in the fourth quarter of 2014 which having an impact on the labor market [6]. This situation will further push the young people in Malaysia difficulties in seeking for jobs since companies had a hard time during the economic downturn. Another constraint due to the foreign workers more favorable compared to local worker in construction sector. Ofori [7] stated the employers prefer foreign workers since the wages paid less compared to local workers. Moreover, according to Hamid et. al [8], foreign workers preferable because; a) foreign workers adhere to carry out any type of work they were ordered to do, b) foreign workers do not complain about their salary, c) foreign workers accepted welfare or facilities provided to them and d) foreign workers more discipline on site. Young people had lack of opportunities to enter into construction sector due to this reason, since foreign workers were less hassle to handle compared to local workers which mostly related to attitude's issues. Meanwhile, young people had less interest to join in training programs and participate in the construction sector as accordance with International Labor Organization (ILO) [9], the industry didn’t have the ability to attract workers and invest in training that will cause poor impacts towards the productivity and quality of the construction products. Moreover, labor shortages and lack of skills will cause more unemployment opportunities since labor were replaced by machine through prefabrication and mechanization.

So far, there is very little published data and analysis of the current condition of employment opportunities for young people in Malaysia construction sector. Therefore, this study is important and timely in order to examine the emerging of employment gaps in the construction industry.

2. Brief Literature

2.1. Definition of employment gaps

An employment gap is a period of months or years when the job applicant was not employed at a job. Employees choose to spend time unemployed for purposes such as layoffs and downsizing, serving time in prison, or employment termination, attending school full time and having and raising children. An employment gap is either for positive or negative reasons, it will need an explanation for the potential employer [10]. Meanwhile, a website Money-zine [11] defined employment gaps as the period when someone was unemployed or absent from a work environment. This indicated the situation where the gaps occurred when the person was not having any jobs at certain period of time. On the other hand,
Willis and Cooper [12] stated that employment changes respond to the gap between the desired and actual number of workers. Employment gaps also depend on the demand and the supply of the workers required by the industry. The insufficient number of workers creates the problem of employment gaps. According to Schneer and Reitman [13], the gaps occurred in the employment histories undesirably related with the future income and satisfaction. The impact of the gaps found more serious for men rather than women since unable to follow the traditional path harmful for men more than women.

2.2. Definitions of skill gaps
Skill gaps are one of the essential factors in this study which lead to the problems in construction where the young people have big responsibilities to fill in the gaps occurred. Thus, it is important to understand the meaning of skill gaps in order to cater the problems regarding the matter. Economic Modelling Specialist International [14] defined the skill gaps as the incompatibility of the needs of employers for required skills verses the skills own by available workforce. It shows the worker unable to fulfil the skills required where this will cause the skill shortage face by the employer.

In addition, skill gap is the measurement of the differences occurred between the skills needed for specified job and skills qualified by a prospective worker as stated by Act.org [15]. Skill gap also depending on the individual workers where the skill needed for the specific job should be acquired by the related workers. Bloom et al. [16] defined skill gaps as the employee’s skill insufficiencies inside a firm further occupied within the workplace. Skill gaps consist of (i) Basic skills (literacy, language, numeracy and computer skills), able to provide path for further knowledge development; (ii) Intermediate skills (related professional, apprenticeship, technician or skilled craft or trade level); (iii) Mathematics and other sciences and (iv) Leadership and management skills.

2.3. Emerging of skill gaps in construction industry
Malaysia’s construction is a huge sector required a large number of people to construct a successful building and infrastructure projects. Malaysia had difficulties to employ young to work in the construction industry. According to the population survey by the Centre for Construction Research and Training, in 2010, in US the labor force is aging where the average age of the construction workers move from 36.0 to 41.5 years old from 1985 to 2010. This shows that older people in the construction industry are more than young people. While Salverda et al. [10] stated that young people actively involved in the process of earning and job mobility, where most of them were paid low which cause them to move into better paid employment and there is also declining rate to return to education. Young people with lack of experience, mostly paid low in the industry, which cause them to job hopping and some hesitate to go back into education. Education able to provide them with a higher certification in the related field and further increase their eligibility in the industry.

Aziz [17] reported that local youth in Malaysia don’t have interest working in the construction industry and rather be unemployed. Hence, 80% of the entire workforce relied on foreign labor. Most of local young people perceived labor in construction industry as second class and a tough job compare to the job as skill worker. This paradigm causes a declining number of local worker labor in the construction industry. Nasir et al. [18] stated that there should be no dependant on the quantity of skilled workers, but rather the quality of the skilled workers possess in order to enhance productivity and the development of economy. While technical skills are basic knowledge to enter the industry, the lack of non-technical skills lead to slower development of skilled worker’s productivity. The non-technical skills for instance communication skills, problem solving skills and decision making skills are the medium to improve the ability of skilled workers in industry.
3. Methodology of the Study
The researcher opted quantitative analysis technique [19-20] to answer the objectives of this study. The questionnaire survey was conducted among construction players in various fields through mediums such as social media, email and distributed directly to the targeted group in their companies and construction sites. The participant involves in data collection for this study include consultants, contractors and other construction players. The respondent targeted to also provide apprenticeship opportunities for young people. The data collected, grouped according to the frequency of the answer given by the respondent. The percentage calculated by dividing the number of observations with total number of observations, then the result should times with 100% in order to gain the result in percentage value. The results then, are presented in the form of charts and table.

4. Results and discussion

4.1 Respondent background
More than 100 questionnaires set were distributed by hand and email to the respondents located in the peninsular Malaysia. 51 numbers of respondent had answered the questionnaire which make up about 50% had responded to the questionnaire distributed. Most of the respondents responded through email and which 66% of the respondent are located in the state of Kuala Lumpur (37.3%) and Selangor (29.4%) while the rest are in Penang (7.8%), Pahang (7.8%), Terengganu (5.9%), Kelantan and others each (3.92%), Johor and Kedah each (2%). Construction industry involves various parties. The respondents were selected could be from various backgrounds since employability in this study not only restricted for certain professions. Based from the respondent background, most of them were from the quantity surveying from consultant and contractor organisation (33%). The second larger respondents to 21% was civil engineer followed by mechanical and electrical engineer, 12% as shown in table 1. Based from figure 1 most of the respondents involve in project management, which comprise 39% of the respondent. While 27% of the respondent work in professional service since most of the respondents came from quantity surveying background. Another respondent involves in general contracting, special trade contractor and project development.

Table 1. Respondents’ Profession

| Type of Profession       | Count | %  |
|--------------------------|-------|----|
| M&E Engineer             | 6     | 12%|
| Civil Engineer           | 11    | 21%|
| Quantity Surveyor        | 17    | 33%|
| Project Manager          | 3     | 6% |
| Contractor               | 1     | 2% |
| Architect                | 4     | 8% |
| Landscape Architect      | 1     | 2% |
| Contract Executive       | 1     | 2% |
| Strategic Communicator   | 1     | 2% |
| Assistant Surveyor       | 1     | 2% |
| Others                   | 5     | 10%|

4.2. The emerging of skill gaps in the construction industry
Based from the literature review, the demand for the skill worker was high. The phenomena didn't only occur in Malaysia but also in the UK [21-23]. Skill gaps could be caused by various factors as stated in the findings below. Based on Figure 2, the most demanding period for firm to hire new worker is throughout the year which is 64%. This reveals that the demand for worker in the construction industry is high and could be filled with young people and unemployed people. Respondents indicates that most
of the workers in their organization are around 31-40 years old (61%). Thus, indicated that most organizations preferred to hire 31-40 years old and above 40 years old (6%) worker rather than 18-30 years old (33%). Figure 3 indicated the type of worker in the firm where 69% of the worker are skill worker while 31% are semi skill worker. Thus, the firm demand skill worker that the people who have an interest to participate in construction should equip themselves with related skill in order for them to be competent.

Figure 3. Type of worker in the firm

Figure 4 revealed that the firm had low demand (54%) for migrant in the range 0%-20%. This mean that the firm do not rely on migrant worker since the job already being filled up by the foreign workers compare to local people. Other reason might be due to high expenses required to hire migrant workers and most of the migrant workers are unskilled worker. Figure 5, 92% of the respondent agreed that skill gaps needed was catered in order for the firm to grow. Skill worker is important for the growth of a firm in order to growth and the ability to compete with other firms.

Figure 4. Reliability on migrant worker

Figure 5. The effect of skill gaps to firm growth and competency
Figure 6 illustrates that the number of apprentices recorded is low, ranging between 0 to 5 people. This shows that the firm is not very serious in recruiting new workers. The reason could be due to the high cost involved. The firm might think that apprentices are not serious enough to replace the retired workers. The reason might be due to the high cost involved. The firm needs to pay the apprentices while their performance might be low due to lack of experience. Figure 7 describes that 84% of the respondents agree that apprenticeship is one way to fill the gap existing in the construction industry where young people should be exposed and well trained in related fields. When these gaps are diminished, the rate of unemployment, especially among young people, can be reduced, and the efficiency in the construction industry could be increased.

Figure 8 states that 88% of the respondents agree that it is necessary to employ skilled workers to replace those who are retiring. Lack of skilled workers will cause a lack of efficiency and reduce the competency of the firm. If the firm is unable to handle such a situation, its growth will be threatened, and this will affect the firm’s survival. Figure 9 demonstrates that most of the respondents, about 57%, agreed that their firm struggles to recruit workers with the right skills. Thus, it is indicated that the firm demands workers with the skills that match the industry’s needs, and these skills need to be developed to ensure that the employees possess relevant skills to adapt to the changes in the construction industry.
Result also shows 80% of the respondent stated that their firm has incentives to employ young people while 18% of the respondent stated that their firm do not have incentives to employ young workers. Other 2% said that the seniority factor when the boss retired, only then the firm will employ new staff. Hence, there are chances for young people who are unemployed could participate in the construction industry since there are incentives by the firm. However, young people should able to possess relevant skill in order to be hired by the firm. Lastly, 92% of the respondent agreed that career advice is very important in order to inform the young people about careers in the construction industry. This is to ensure that young people know that the construction industry could offer lots of construction job for them and create the awareness of the training of the skill available. Therefore, the amount of unemployment rate for young people could be reduced and able to contribute to the growth of the construction industry in Malaysia.

5. Conclusion
There are emerging skill gaps in construction the industry where the demand for new workers in related field occur throughout the year. The reliability on migrant worker was low due to the factor that most of the migrant workers did not possess relevant skill demanded by the industry. However, the current practice is that the job could have been filled up by the migrant workers since the local youth refused to get involved in this industry. Meanwhile, the participation of young people aged from 18 to 30 years old in the construction industry was low because most firm employed those aged from 31 to 40 years old. The industry keeps demanding skill worker even though young people could fill in the gap. Only a small number of apprentices were recorded in the firm to cater for the apprenticeship demand. This indicates lack of opportunity for young people to participate in the construction industry.

6. References
[1] Malaysia Productivity Corporation 2017 MPC 24th Productivity Report 2016/2017. (Petaling Jaya: MPC)
[2] Theng, T.T. and Kunasekaran, T. 2017 Malaysia Unemployment Report August 2017. Retrieved 14 November 2017 from http://www.krinstitute.org/Indicators-@-Unemployment.aspx
[3] Ibrahim, D.H.M. and Mahyuddin, M.Z. 2017 Bank Negara Malaysia Annual Report 2017-Youth Unemployment in Malaysia: Developments and Policy Considerations. Retrieved November, 18, 2017 from https://www.bnm.gov.my/files/publication/ar/en/2016/cp04_003_box.pdf
[4] Clark, K.B. and Summers, L. 1982 The dynamics of youth unemployment. The Youth Labour Market Problem: Its Nature, Causes and Consequences. (the National Bureau of Economic Research: University of Chicago Press) 199-234.
[5] Freeman, R. and Wise, D. 1982 The Youth Labour Market Problem: Its Nature, Causes and Consequences. (National Bureau of Economic Research: University of Chicago Press).
[6] MIDF Amanah Investment Bank Berhad 2015 BNM 2014 Annual Report: Moderating growth with inflation closer to trend. (Kuala Lumpur: Malaysia Industrial Development Finance Berhad (MIDF))
[7] Ofori, G. 1996 Foreign construction workers in Singapore. (Geneva. Working Papers International Labour Office).
[8] Hamid, A.R.A., Singh, B., Aminah, M.Y., and Nur Ashikin, M.A. 2011 The Employment of Foreign Worker at Construction Site. 2nd International Conference on Construction and Project Management.
[9] International Labour Organisation 2001 The construction industry in the twenty-first century: Its image, employment prospects and skill requirements. Tripartite Meeting. (Geneva: International Labour Office Geneva)
[10] Heathfield, S.M. 2016) How Do You Overcome an Employment Gap? Retrieved October 27, 2016 from https://www.thebalance.com/how-do-you-overcome-an-employment-gap-1918103.
[11] Money-zine 2015 Definition of Employment Gap. Retrieved November 18, 2015, from http://www.money-zine.com/definitions/career-dictionary/employment-gaps/

[12] Willis, J.L. and Cooper, R., 2009 The cost of labor adjustment: Inferences from the gap. Review of Economic Dynamics 12 632–647.

[13] Schneer, J.A. and Reitman, F., 1990. Effects of Employment Gaps on the Career of MBA's: More Damaging for Men Than for Women? Academy of Management Journal, 33 (2), 391-406.

[14] Economic Modelling Specialist International (EMSI), 2013. The Skills Gap: A National Issues that Requires a Regional Approach. Retrieved from: http://www.economicmodeling.com/wp-content/uploads/EMSI-SkillsGap-Brief.pdf.

[15] Act.org/workforce. 2011 A Better Measure of Skills Gaps: Utilizing Act Skill Profile and Assessment Data for Strategic Skill Research. American College Test. Retrieved from: https://www.act.org/content/dam/act/unsecured/documents/abettermeasure.pdf

[16] Bloom, N., Conway, N., Mole, K., Moslein, K., Neely, A., and Frost, C. 2004 Solving the Skills Gap: Summary Report from the AIM/CIHE Management Research Forum. Advanced Institute of Management Research.

[17] Aziz, A.R.A. 2001 Site operatives in Malaysia: Examining the Foreign local asymmetry. Unpublished report for the ILO.

[18] Nasir, A. N., Ali, D. F., Noordin, M. K., and Nordin, M. S. 2011 Technical skills and non-technical skills-prededefinition concept. IETEC’11 Conference. Kuala Lumpur.

[19] Berry, J. 2006 Quantitative Method in Education Research. (Centre of Teaching Mathematics: University of Plymouth).

[20] Fink, A. 2005 Conducting Research Literature Reviews: From Internet to Paper. 2nd ed. (Sage Publications: Thousand Oaks).

[21] Raynsford, N., and Best, R. 2014 No More Lost Generations: Creating Construction Jobs for Young People. (London: House of Commons).

[22] Sung, S. 2013 62% Malaysian businesses find hard to hire skilled workers, highest in ASEAN. (Kuala Lumpur: Grant Thornton).

[23] Barnes, D. 2013 Skills in the UK Construction Industry. (Berkshire: The Chartered Institute of Building).