

HEALTH AND SAFETY (H&S) CHALLENGES CONFRONTED BY FOREIGN WORKERS IN THE MALAYSIAN CONSTRUCTION INDUSTRY: A BACKGROUND STUDY

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ABSTRACT

Many scholars indicated that the occupational accidents rate for foreign workers is higher than for domestic workers in Malaysia. In 2015, a total of 140 Malaysia construction workers have suffered fatal injuries, consisting of 47 locals and 93 foreigners and these statistics show that the number of foreign workers who were killed was 2 times more than the number of local workers who died. This paper will therefore aim to promote a better understanding of the role of health and safety practices through identification of the challenges among foreign workers in Malaysian construction industry. The main study to which this paper relates actually adopts a mixed approach for empirical data collection. Whereas this paper is entirely based on secondary data collated through an extensive critical literature review. Findings of this paper provides a general overview of the health and safety challenges faced by foreign workers such as human-rights related problems, difficulty of applying working permit, communication barriers, compensation and insurance scheme, equal treatment, working environment and accommodation issues in Malaysian construction industry which has the potential to lead the relevant authorities such as policy makers and governmental officials in taking necessary steps to improve the safety practices among the local and foreign workers.

Keywords: Foreign Workers; Health and Safety Challenges; Malaysian Construction Industry.

1. INTRODUCTION

For over three decades, Malaysia has relied heavily on the use of foreign workers either legally or illegally in the manufacturing, construction, plantation, agricultural, services and domestic sector. The importation of foreign workers into Malaysia is a necessity when the country was facing an acute shortage of labour force. Hence, the number of foreign workers in Malaysia has increased from approximately 0.5 million in 1984 to 0.63 million in 1997, 2.4 million in 1998, 1.9 million in 2006, and then 2.1 million in 2009 (Abdul-Rahman *et al.*, 2012).

Many cases had been reported that some of the foreign workers who arrived in Malaysia were unable to cope with new working environments in large scale projects because they do not have adequate training and even not specialized in their works; do not have enough construction experience; thus resulting in low productivity and poor quality of work (Marhani *et al.*, 2012). Besides, the Malaysian construction companies also faced many problems when some of the foreign workers were absent during working hours and ran away after they arrived in Malaysia (Marhani *et al.*, 2012). Apart from that, the social problems related with foreign workers have further aggravated the situation (Abdul-Rahman *et al.*, 2012). Further, Wei and Yazdanifard (2015) claimed that most of the construction sites in Malaysia are dirty, tough and dangerous, with few of the recommended safety precautions being followed. Wei and Yazdanifard (2015) also noted that despite the

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unpleasant and unsafe working environment, Malaysian foreign workers are not bother by this deficiency and are still willing to take these risky jobs that locals usually do not wish to do just to earn a living.

In 2015, a total of 140 Malaysian construction workers have suffered fatal injuries, consisting of 47 locals and 93 foreigners and this shows that the number of foreign workers who killed were 2 times more than the number of local workers (DOSH, 2016). Further, many scholars indicated that the rate of occupational accidents for foreign workers is higher than for domestic workers in countries such as US, UK, Australia, Japan, Singapore and Taiwan (Cheng & Wu, 2013). For example, according to the statistics of Taiwan's Bureau of Labor Insurance (2010), all-industry occupational accident rate per 1,000 workers in Taiwan was 4.493 in 2007 and the rate of occupational accidents per 1,000 foreign workers were 5.855. This figure is 1.32 times higher than all laborers and indicates a serious problem in foreign worker occupational safety.

Consequently, to avoid any occurrence of accidents in Malaysia, early safety implementation based on the Occupational Safety and Health Act 1994 (OSHA) was introduced by compelling employers to comply with the rules that were set to provide or send the foreign workers to attend training or courses to get safety information before start working on construction sites. Safety and Health Induction Course (SHIC) is an important basic course and must be attended by foreign workers before entering or start working on a construction site in Malaysia. The objective of this course is clear; which make workers realize the dangers on construction sites, ability to reduce the damage or injury to other workers, public or properties and to comply with the safety law and regulations (Teck *et al.*, 2015; Salleh *et al.*, 2012). Despite the fact that these are prevailing, accidents in the Malaysian construction industry are still prominent in the industry. Thus, the purpose of this paper is to promote a better understanding of the role of health and safety practices through identification of the challenges among foreign workers in the Malaysian construction industry.

As an initial step towards achieving the purpose, this paper aims to identify the main accidents and health-related problems faced by foreign workers in the construction industry. Ultimately, the findings of this study will provide a better understanding of health and safety practices and challenges among foreign workers in Malaysian construction industry which need to be addressed by relevant authorities such as policy makers and governmental officials in taking the necessary steps to improve the safety practices among foreign workers. This paper is based only on secondary data collated through an extensive critical literature review.

2. MALAYSIAN CONSTRUCTION INDUSTRY

The construction industry is a very important part in the economy of Malaysia. The industry is made up of many components includes thousands of contractors, workers, developers, client organizations (government and private), management, engineering, architectural, and surveying consultants, manufacturers, material suppliers, plant hirers. The government is an important player in the industry through its agencies: Ministry of Works, Public Works Department (PWD), Construction Industry Development Board (CIDB), Contractor Service Centre (PKK), Board of Engineers, Board of Architect and Board of Surveyors. All of these components play an important role in the growth and development of Malaysian construction industry (Kamal *et al.*, 2012). Since independence in 1957, the Malaysian construction industry has developed from a low-tech, labour intensive, craft-based industry to one that has a capacity to deliver advanced buildings and infrastructure, using highly mechanized production techniques seen in projects such as Kuala Lumpur's Twin Towers and Kuala Lumpur International Airport (Kamal & Flanagan, 2012).

Furthermore, Malaysian construction industry is one of the productive sectors which have contributed significantly to the Malaysian economy as a catalyst for the growth of other industries. Although it accounts for less than 5% of Gross Domestic Product (GDP), the industry is an essential growth enabler because of its extensive linkages with the rest of the economy, for example, the manufacturing, professional services, financial services, education and other industries (Marhani *et al.*, 2012).

Nevertheless, during the last few decades, the move of Malaysian workforce to jobs with better economic opportunities saw certain sectors such as construction, plantations, forestry and certain services experiencing labour "shortages". It means that an insufficient numbers of workers reacting to the wage levels and conditions of employment offered by employers in the respective industries or sectors. This resulted in labour market vacancies being increasingly filled by foreign workers (Marhani *et al.*, 2012). Besides, Abdul-Rahman *et al.*, (2012) indicated that the Malaysian construction industry provides employment opportunities for 800,000 workers, representing 8% of the total workforce; 69% of these are foreign workers.

Therefore, according to Pillai (1999), Malaysian construction sector has become the most significant dependence on foreign worker among Asian country. Foreign construction workers (unskilled and semi-skilled migrant workers) in Malaysia were from adjacent regions; Indonesia is the leading source of labour, followed by Myanmar, Pakistan, India, and the Philippines. The quality of foreign workers in term of working skills is the weakness of the list in exchange for cheaper manpower in the industry. According to Han *et al.*, (2008), most of the foreign workers arriving in Malaysia are unskilled, which has reduced the productivity and the quality control within the construction industry. Moreover, an unskilled foreign worker will contribute to a significant amount of safety related issues, due to the lack of safety knowledge and safety awareness.

In addition, the construction workers mostly work in small firms or trade sub-contractors. They work longer hours but their salary is around the average wage of other industries. In contrast to developed countries such as Japan, Singapore, South Korea, Australia or the United Kingdom (UK), there are signs of alarming gaps between skills of the work force in the Malaysia and those abroad. In these countries, more pre-fabricated construction is practiced resulting in unskilled workers becoming more marginal as employers increasingly employ only trained and skilled workers to work. On the contrary, the Malaysian construction workforce, both local and foreign workers tends to have very little skills, qualifications and training (CIMP, 2010; Jaafar *et al.*, 2007).

In conjunction with that, many Malaysian are no longer willing to perform jobs in construction because they considered it as 3D's (dirty, difficult, and dangerous), hence contributed to dependency on the foreign workforce. They are not interested in working in rough natured work on sites, which needs more physical strength compared to working in air conditioned office. Furthermore, they are too choosy when making job decisions and believe that better qualifications will give better jobs (Marhani *et al.*, 2012).

3. OVERVIEW OF HEALTH AND SAFETY IN THE MALAYSIAN CONSTRUCTION INDUSTRY

3.1. HEALTH AND SAFETY RULES AND REGULATIONS PREVAILING TOWARDS FOREIGN WORKERS

Safety is one of the most concerned elements in the workplace for the sky-high fatality status around the globe. In most organizations, especially high risk industries, safety issues in workplace are the main priority to be tackled. Today, construction industry is regarded as one of the least unsafe industrial sectors worldwide (Abudayyeh *et al.*, 2006; Brunette, 2004; Mohamed, 1999). According to International Labour Organization (ILO) (2003), there are at least 60,000 people fatally injured in Switzerland construction industry each year and there are many more suffer serious injuries and ill-health. This number could represent only less than 20 per cent of actual construction injuries reported (ILO, 2003). Locally, Department of Occupational Safety and Health Malaysia (DOSH), Ministry of Human Resources has recorded a total of 763 cases of accidents from 2007 to 2012 in Malaysia's construction industry and 422 or 55% from the number was fatal accidents (DOSH, 2014).

Thus, identification of causes and effects of accidents is an important prevention strategy to reduce the growing number of injuries and fatalities among workers. According to Sawacha *et al.*, (1999), the occurrence of accidents was much related to the lack of competency skills and knowledge of the worker to perform safely in the workplace. Whereas other researchers reported that unsafe worker behaviour and misperception of safety responsibilities among workers is often led to unsafe acts on the workplace which causes accidents (Sacks *et al.*, 2013; Othman *et al.*, 2012). It should be noted that safety knowledge and awareness and safe work behaviour are inter-related. According to Musonda and Smallwood (2008), health and safety awareness is an antecedent of displays of behaviour, with accidents and incidents being the consequences of behaviour in the industry. Therefore, to reduce the occurrence of accidents in workplace, it is essential to improve the safety knowledge and awareness of the workers which would later result improvement in the safety behaviour of the workers. To improve the workers safety knowledge and awareness, safety training has been seen as an important effort that should be provided to the workers (Teck *et al.*, 2015).

Hence, according to Salleh *et al.*, (2012) shows that to avoid any occurrence of accident in Malaysia, early safety implementation based on the Occupational Safety and Health Act 1994 (OSHA) was introduced by compelling employer to comply with the rules that was set to provide or send the local and foreign workers to attend training or courses to get safety information before starting work on the construction site. Safety and Health Induction Course (SHIC) is an important basic course and must be attended by local and foreign

workers before entering or start working on a construction site in Malaysia. The objective of this course is clear; to create an awareness among workers on the risks in construction sites, to reduce damage or injury to other workers, public or properties and to comply with the safety laws and regulations (Teck *et al.*, 2015; Salleh *et al.*, 2012).

In addition, by referring to the standardized materials (presentation slides, safety induction books and safety guidelines for construction workers) as provided by CIDB, the topics that cover during SHIC are OSHA 1994, housekeeping and cleanliness, fire prevention, hazard from electric, transportation and mobile plant, excavation, roof work, working on live roads, chemical hazards, working at height and personnel protective equipment. Furthermore, the immigrant workers need to undergo a special course conducted under the supervision of Ministry of Human Resources (MOHR) known as Induction Course for Foreign Workers working in Malaysia (MOHR, 2006). Some of the contents within the induction course include: (1) The Communication Proficiency - 30 hours, (2) Malaysian Culture - 10 hours and (3) Awareness of Malaysian Laws - 20 hours.

3.2. FOREIGN WORKERS IN MALAYSIA

The beginning of foreign workers import started in the 1970s through the Malaysian government's New Economic Policy, which welcomes the labour shortage mainly that in the plantation sector from India (Ajis *et al.*, 2010; Narayanan & Lai, 2005). Hence, proportion of Malaysian foreign workers in the overall workforce increased from 1:10 in 1995 to 1:18 in 1997. According to 8th Malaysian Plan, 2001 (as cited in Mustapa, 2014) it then recovered to 1:13 in 2000. As of 2005, 63,538 foreign workers were registered in Malaysia. In addition, another 244,242 workers are waiting for working permits (CIDB, 2006). Table 1 shows the distribution of foreign workers from 2006 until 2010 by sector in Malaysia.

Table 1: Distribution of Foreign Workers (Source: Department of Statistics, 2010)

| Sector | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Manufacturing | 628,576 | 766,451 | 737,523 | 355,710 | 539,579 |
| Plantation | 343,373 | 343,373 | 361,977 | 205,333 | 264,284 |
| Construction | 272,730 | 298,422 | 285,845 | 204,237 | 187,743 |
| Agriculture | 162,338 | 162,338 | 220,528 | 116,324 | 150,823 |
| Services | 305,393 | 293,771 | 264,591 | 206,863 | 247,051 |
| Total | 1,913,613 | 2,065,558 | 2,085,613 | 1,222,064 | 1,516,111 |

Table 1 show that manufacturing employs the largest percentage of immigrant workers, followed by the plantation sector. Construction and services sectors come third. Although the construction industry is smaller in terms of GDP contribution than both the manufacturing and plantation sectors, it is still a favoured sector for immigrants due to its nature. Furthermore, Table 2 shows the distribution of the approved immigrant construction workers by nationality from 2006 until 2010 in Malaysia.

Table 2: Distribution of the Approved Immigrant Construction Workers by Nationality (Source: Department of Statistics, 2010)

| Nationalities | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------|---------|---------|---------|---------|---------|
| Indonesia | 219,880 | 208,920 | 183,961 | 172,329 | 151,333 |
| Bangladesh | 11,447 | 47,379 | 61,569 | 2,638 | 3,036 |
| Thailand | 1,245 | 1,402 | 1,613 | 781 | 463 |
| Philippines | 1,757 | 1,828 | 2,135 | 671 | 3,335 |
| Pakistan | 4,131 | 4,475 | 5,638 | 7,089 | 6,217 |
| Myanmar | 14,428 | 14,491 | 14,007 | 11,691 | 12,221 |
| Nepal | 4,389 | 4,678 | 3,704 | 3,078 | 3,050 |
| Vietnam | 5,893 | 5,090 | 3,613 | 226 | 1,965 |
| Other | 9,560 | 10,159 | 9,605 | 5,734 | 6,123 |

There seems to be an incremental increase in the amount of immigrant employment yearly. There seems to be an increasing pattern largely from the neighboring countries with similar backgrounds, such as language and culture. Indonesia continues to be the largest supplier for human capital followed by Bangladesh. In addition, according to Anglioinfo (2015), the Malaysian construction sector employs approximately 9 percent of their total workforce from Indonesia and other member nations of the Association of Southeast Asia Nations (ASEAN). In 2017, there were 1.78 million foreign workers in Malaysia as of June 30 and the majority comprising Indonesians, Nepalis and Bangladeshis. According to the home ministry's statistics, there were 728,870 Indonesians working in the country, followed by Nepalis (405,898) and Bangladeshis (221,089). There were also 127,705 Myanmar nationals, 114,455 from India and 59,281 Pakistanis. The remaining comprised Filipinos (56,153), Vietnamese (29,039), Chinese (15,399), Thai nationals (12,603), Sri Lankans (5,964), Cambodians (5,103) and Laos nationals (39).

3.3. TYPES OF ACCIDENTS

The construction industry is a very important part in the economy of Malaysia. However, the average five-year fatality rate for this industry is 99 employees each year (from 2011 to 2015). The fatality rate per 100,000 construction workers in 2015 is 10.94, higher than the average mortality rate for five years (2011- 2015) of 8.17. The trend of fatal injury in construction workers has risen since 2012, and 140 construction workers have died in 2015, the highest record since 2001 and in the 21st century (DOSH, 2016).

Furthermore, according to DOSH (2016) the five-year average (from 1999 to 2003) number of injured workers in all industries was 898, while the average five years from 2011 to 2015 was 639. The five-year average for the fatal of all industry workers showed a 28.8% decline. Five years average (from 1999 to 2003) number of workers injured in the construction industry was 115, while the average five years from 2011 to 2015 was 99. The five-year average for the fatal injuries of construction industry workers showed a decrease, but at a lower rate of 13.9%. In 1999, the construction industry accounted for 14.5% of the total number of deaths and injuries in all industries, and the percentage of this contribution increased to 21% by 2015. This demonstrated that 1 out of 5 job deaths occurred on construction sites. Figure 1 indicates the number of fatal injuries in Malaysia construction industry from 1999 – 2015.

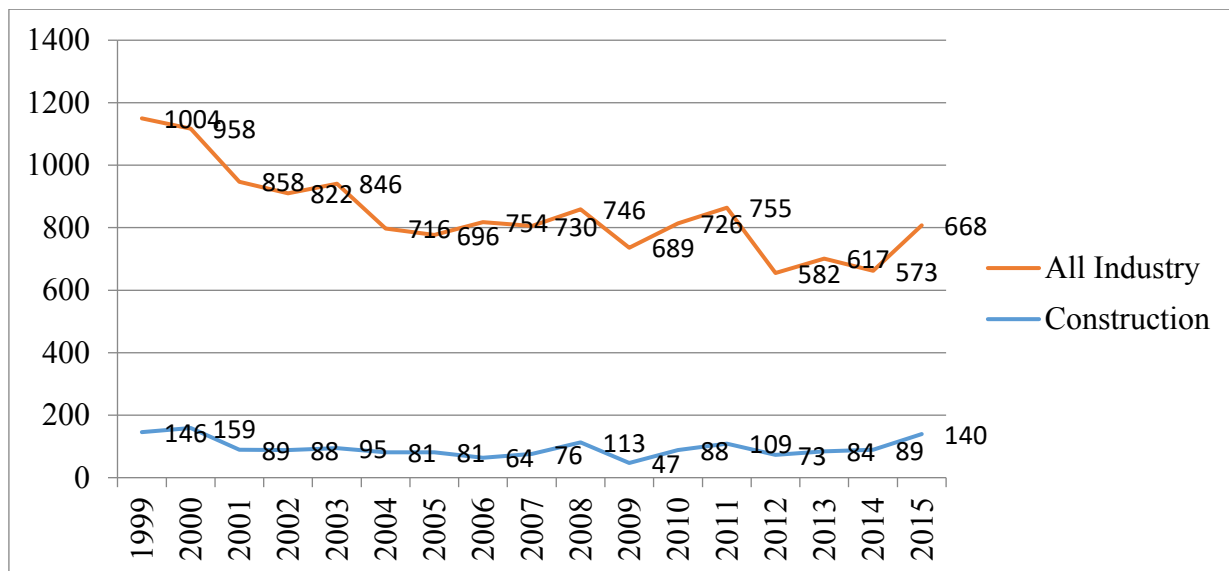


Figure 1: Numbers of Fatal Injuries among Construction Workers (Source: DOSH, 2016)

The most common types of accident are falls, stepping on, striking against or being struck by objects and etc, which happens when moving construction equipment strikes or runs over workers (Chong and Low, 2014). Falls are a critical cause of accidents with an annual average of 1042 cases in Malaysia (Chong and Low, 2014). In addition, statistics by DOSH (2016) indicated that main fatal injuries happened to the Malaysian foreign workers were fall from height, followed by stepping on, striking or being struck by objects.

Previous studies in other countries such as U.S has also pointed out that falls were the most common type of accident (Huang & Hinze, 2003). According to the Occupational Injury and Illness Classification Manual, falls can be grouped into 11 categories such as falls from stairs or steps; falls through existing floor openings; falls

from ladders; falls through roof surfaces; falls from roof edges; falls from scaffolding or staging; falls from building girders or other structural steel; falls while jumping to a lower level; falls through existing openings; falls from floors, docks or ground level; and other no classified falls to lower levels (U.S. Department of Labor, 2012).

Furthermore, Yilmaz (2015) stated that the risk of possible accidents in construction sites depend on five different reasons; falling from height, falling objects and being hit by objects, machinery and crane accidents, electric shock, and explosion. For example according to SOCSO (2009) stated that causes of accidents in the Malaysian construction industry such as by incorrect use or poor maintenance of material and equipment were the most common (14 cases), followed by falls (13 cases), being struck (10 cases) and accidents caused by collapse of building structures (3 cases).

4. CHALLENGES CONFRONTED BY MALAYSIAN FOREIGN WORKERS

Foreign workers in Malaysia have been subjected to unequal, dangerous and unsatisfactory treatment under the hands of local employers as well as the infrastructure of the law. Jobs in the construction industry entail irregular long hours, unsafe working condition, low pay and also demands that foreign laborers work during weekends and holiday seasons. Despite all the unpleasant situations that they are would have to face, these foreign workers do not stop coming to Malaysia in order to fill the gap that local distaste have left in labor intensive jobs like those in the construction sector (Wei & Yazdanifard, 2015).

4.1. HUMAN RIGHTS

In Malaysia, foreign workers have a limited ability to enforce the rights enshrined in their contract due to the language barrier, the cost of lawyers and the period of time they are allowed to stay in Malaysia. Hence, foreign workers are subjected to psychological stress when such cases occur, as they often feel isolated and helpless when their rights go unprotected in a foreign country (Chelvarajah, 2015, as cited in Wei & Yazdanifard, 2015). Furthermore, according to a report by Amnesty International foreign workers are lured to Malaysia by promises of high salaries by the construction companies but always end up being exploited and abused (The Star, 2015). Many workers that are brought to Malaysia by agents often find themselves deceived about their pay, type of job and even their on-site accommodation. Some even find themselves locked up behind bars for flimsy and unacceptable reasons (Chelvarajah, 2015, as cited in Wei & Yazdanifard, 2015).

4.2. APPLYING WORK PERMIT

Applying for a working permit is the first difficulty most foreign worker has to overcome in order to enter in Malaysia. The application procedure is often unnecessarily complex and needlessly time-consuming (Wei & Yazdanifard, 2015). According to the official portal of the Malaysian Immigration Department, the recruitment terms and conditions for foreign workers differ from country to country. Only certain nationalities are allowed to work in some of the listed sectors whereas individuals from countries not on the list are prohibited from entering Malaysia under Section 8(3) of the Immigration Act 1959/1963 (Official Portal of Immigration Department of Malaysia, 2015).

Furthermore, there are 2 phases in the application process - pre arrival and post arrival. Hopeful workers are required to prepare a list of documents that include among them medical certificates, an approval letter, security bonds, copies of passports and their insurance policy. Besides the long waiting period of approval for the permit, a huge sum in fees have to be paid, depending on the sector and nationality of the worker, in order for the foreign workers to get an identity card that allows them to work in the sector of their choice (Official Portal of Immigration Department of Malaysia, 2015). However, foreign workers usually come from less developed countries to find a living in Malaysia, but language is often a barrier for them because they have no need to learn Malay and have limited access to English. Yet they are required to prepare a list of documents based on requirements that are written in English or Malay in order to apply for their permit.

4.3. COMMUNICATION BARRIERS

Language barrier has been a problem amongst foreign workers in the construction industry in Malaysia, especially between the supervisors and the foreign laborers in the construction site. Besides, the scenario of foreign workers influx into various sectors including the construction sectors has created a variation in language (Salleh et al., 2012). This language is often linked to communication, where according to Trajkovski and Loosemore (2006), language is the barrier for communication, whether verbal or written, when presenting information to the foreign workers.

As a result, leads to complications in the worksite as most of them cannot understand or speak the local language with their supervisors, which cause a breakdown in team cohesion due to inability to communicate. Workers also find it difficult to understand work orders, safety rules and to interpret safety warning signs. This is among the factors that contribute to accidents happening in the construction site and brings with it huge consequences to the project, such as delaying progress, injury, disability or even death of workers causing the company to be short staffed and to incur them losses from myriad compensations and from the delay (Wei & Yazdanifard, 2015).

4.4. COMPENSATION AND INSURANCE SCHEME

Most cases of injury, accidents and death are issues that can be prevented if certain precautions are taken by employers of potentially unsafe workplaces like the construction site. Most of the foreign workers do not get the benefits of compensation and insurance which they are fairly entitled to but often get cheated out of due to their lack of knowledge, which is really unfair to them (Wei and Yazdanifard, 2015). Under Section 26(2) of the Amended Workman's Compensation Act 1952, it is compulsory for every employer to insure all foreign workers employed by him under an approved insurance scheme in respect of any liability (Wei & Yazdanifard, 2015). In addition, any employer who fails to insure the foreign workers under the scheme shall be guilty of an offence and shall be liable, on conviction, to a fine not exceeding RM20, 000 or to imprisonment for a term not exceeding 2 years or both (Wei & Yazdanifard, 2015). However, there are employers who take advantage of their foreign employees by ignorance of the local laws and deny them of their rightful compensation (Wei & Yazdanifard, 2015). Therefore, while the scope of the coverage of the law guarantees benefits to the employee in the long term, it is often not enforced.

4.5. EQUAL TREATMENTS

Foreign workers always face issues in getting equal treatment with that of local workers. First and foremost, foreign workers often do not get their salary on time due to the inefficient arrangement of their employers. The punctuality of their payment does make a big difference for them and their families back home that depend on them for a living (Wei and Yazdanifard, 2015). In addition, according to Elias (2008) not all foreign workers get their salary, after conversion, on a salary scale that is proportional to that of their Malaysian counterparts, which shows the act of inequality. Besides, they also do not get equal treatment in terms of leaves, as local workers get a greater number of public holidays, sick leave and vacation leave. Their working hours are also extremely long and often longer than the government mandated eight hours a day. Foreign workers also do not get much benefit in terms of free medical treatment as well as bonuses and shift duty allowances. However, employers should not cheat their employees off of their rights but should instead provide equal and good benefits to their foreign laborers as their business is dependent on the hard work that these people put in every day (Elias, 2008).

4.6. WORKING ENVIRONMENT AND ACCOMMODATION

A good working environment at a construction site is important for all the workers so that safety and health issues can be avoided. Wei and Yazdanifard (2015) claims that most of the construction sites in Malaysia are dirty, tough and dangerous, with few of the recommended safety precautions being followed. Wei and Yazdanifard (2015) also noted that despite the unpleasant and unsafe working environment, Malaysian foreign workers are not bothered by this deficiency and are willing to take these risky jobs that locals do not wish to do just to earn a living.

Due to nature of business, there is no guarantee that construction companies will be continuously awarded projects. Hence, employers have tried their best to minimize costs by making the immigrant construction

workers stay on-site in temporary accommodation known as 'kongsi' (Abdul-Aziz, 2001). The condition of 'kongsi' is generally poor and there are no proper amenities. In addition to the lack of new employment, the nature of the business is that the projects are short-term. This means that once they have completed a project, construction workers may disembark for another. This contributes to their temporary working conditions, which has repercussions on other areas of their life (Mustapa and Pasquire, 2008).

As conclusion, by having explained the several aforementioned challenges faced by foreign workers in the Malaysia construction industry, Wei and Yazdanifard (2015) further stated that this is among the factors that contributed to accidents on construction site and brings with it huge consequences to the project such as delaying progress; injury; disability or even death of workers causing the company to be short staffed and to incur them losses from myriad compensations and from the delay. Hence, employers should not cheat their employees off of their rights but should instead provide equal and good benefits to their foreign laborers as their business is dependent on the hard work that these people put in every day (Elias, 2008).

5. HEALTH AND SAFETY PRACTICES TO OVERCOME THE CHALLENGES FACED BY FOREIGN WORKERS IN THE CONSTRUCTION INDUSTRY

There are many ways in which health and safety in construction industry is controlled to reduce the number of accidents, thus reducing the number of fatalities and injuries to the workers and damage to the equipment. Governments worldwide have maintained an ongoing commitment towards establishing a working environment free of injury and disease. This commitment is reflected by establishing performance based workplace health and safety legislation which sets generalized performance objectives and provides a system of clearly stated responsibilities to encourage greater self-regulation for the construction industry. Some countries depend totally on government in controlling safety at worksite. Despite the high costs of work accidents, many construction companies adopt as their only health and safety management strategy the compliance with mandatory regulations. However, only being in compliance with these regulations might not be sufficient to guarantee excellence in health and safety performance, as they cover only minimal preventive measures (Alhajeri, 2011).

Besides, in adopting different approaches to health and safety in developed and developing countries, two main differences can be identified. The first is the existence of legislation and its effective implementation; the second is hazard awareness. In developed countries, many safety acts and legislation exist and are implemented effectively. Nominated safety officers promote hazard awareness with the help of regular safety training sessions. In developing countries, however, safety rules barely exist at all; and when they do, they are inappropriate, ineffective, out-of date and based on conditions that prevailed while the country was still being colonized. Additionally, the regulatory authority is usually very weak in implementing rules effectively, and work hazards are either not perceived at all, or perceived to be less dangerous than they actually are (Hinze *et al.*, 1999).

Hence, most countries now have a law on Health and Safety at Work that protects their population from personal harm by forcing contractors; installations; equipment; tools; etc. to have a safety level that is at least at the level of the generally accepted technical level corresponding to good engineering practice. For example, safety and health in construction in the USA is regulated by governmental agencies such as the Occupational Safety and Health Administration (OSHA) which provides strict rules and regulations to enforce safety and health standards on job site. The OSHA defines safety and health regulations for construction industry. The regulations apply to all involved in construction work including contractors, subcontractors and suppliers. According to general health and safety provisions, it is the employer's responsibility to initiate and maintain programs for safe working conditions for employees. It further states that any such program shall provide for frequent and regular inspections of the job sites, materials, and equipment to be made by designated competent persons. The safety training and education regulations create a responsibility for the employer to avail himself of the health and safety training programs and instruct each employee of any unsafe conditions and regulations applicable to employee's work environment to prevent any hazards. Countries such as the United Kingdom, Singapore and Hong Kong have adopted a self-regulatory approach to safety, whereby proprietors (including contractors) are required to develop, implement and maintain safety management system (Ng *et al.*, 2005).

In Malaysia, the Department of Occupational Safety and Health (DOSH) under the Ministry of Human Resource is responsible for enforcing the law on occupational safety and health, which was introduced in 1994. Furthermore, Malaysia was the first Asian country to have enacted a Safety and Health Act covering all

occupations in 1994. OSHA 1994 was introduced to respond to the need to cover a wider employee base and newer hazards in the workplace (Salleh *et al.*, 2012). Thus, every construction organization should have a clear policy for the management of health and safety so that everybody associated with the organization is aware of its health and safety aims and objectives. Besides, a good health and safety policy will also improve the performance of the organization in areas other than health and safety; help with the personal development of the workforce and reduce financial losses. It is important that each construction site throughout the organization is aware of the policy.

6. THE WAY FORWARD AND CONCLUSIONS

Malaysia intends to be a developed country with the United Nations by the year 2020 and the construction industry has always been a stalwart economical key to that goal. However, the level of industrial accidents in Malaysia is still upsetting. In recent years, this industry has had to hire more to the point of being dependent on foreign workers in order to meet the ever growing demands of Malaysia's continuing thirst for new building projects. Working conditions for these foreigners are often unfavorable but this does not stop them from working in Malaysia. Besides, due to over-dependence on foreign workers has caused several problems such as low productivity, do not have enough construction experience and also may lead to the misunderstanding, which will decrease the level of project work done in Malaysian construction industry.

Therefore, the purpose of this paper was to promote a better understanding of the role of health and safety practices through identification of the challenges confronted by foreign workers in the Malaysian construction industry. The main challenges associated with foreign workers can be mainly attributed to the areas such as human-rights related problems, difficulty of applying working permit, communication barriers, compensation and insurance scheme, equal treatment, working environment and accommodation issues. In addition, it presented the main accident types and statistics in the Malaysian construction industry. Further, literature found that the types of accident such as falls, stepping on objects, and struck by falling objects are the top three most commonly accidents occurred in the Malaysian construction industry. Moreover, statistics by Department of Occupational Safety and Health (DOSH) indicated that main fatal injuries happened to the Malaysian foreign workers are fall from height, followed by stepping on, striking or being struck by objects.

The challenges encountered by the foreign workers in the Malaysian construction industry as identified in this paper raised few important questions i.e. what are the current H&S training and education programmes provided for foreign workers; what are the deficiencies in H&S training and education programmes in Malaysia; how can H&S training and education programmes be improved effectively for foreign workers working in the Malaysian construction industry to overcome their challenges and provide a safe work place. This forms the basis for the way forward of this future research with an ultimate intension of improving the H&S in the Malaysian construction industry.

7. REFERENCES

- Abdul-Aziz, A.R., 2001. Foreign Workers and Labour Segmentation in Malaysia's Construction Industry. *Construction Management & Economics*, 19(8), 789-798.
- Abdul-Rahman, H., Wang, C., Wood, L.C. and Low, S.F., 2012. Negative Impact Induced By Foreign Workers: Evidence in Malaysian Construction Sector. *Habitat International*, 36(4), 433-443.
- Abudayyeh, O., Fredericks, T.K., Butt, S.E., and Shaar, A., 2006. An Investigation of Management's Commitment to Construction Safety. *International Journal of Project Management*, 24(2), 167-174.
- Ajis, M.N., Saludin, M.N., Ismail, A., Von Feigenblatt, O.F., Shuib, M.S. and Keling, M.F., 2010. Managing Foreign Workers in Southeast Asian Countries. *Journal of Asia Pacific Studies*, 1(3), 481-505.
- Alhajeri, M., 2011. *Health and Safety in the Construction Industry: Challenges and Solutions in the UAE*. Thesis (PhD). Coventry University.
- Angloinfo, 2015. *Employment Contracts in Malaysia* [online]. Available from: <http://malaysia.angloinfo.Com/working/employment/employment-contracts/> [Accessed 10 July 2017].
- Brunette, M.J., 2004. Construction Safety Research in the United States: Targeting the Hispanic Workforce. *Injury Prevention*, 10(4), 244-248.

- Cheng, C.W. and Wu, T.C., 2013. An Investigation and Analysis of Major Accidents Involving Foreign Workers in Taiwan's Manufacture and Construction Industries. *Safety Science*, 57, 223-235.
- Chong, H.Y. and Low, T.S., 2014. Accidents in Malaysian Construction Industry: Statistical Data and Court Cases. *International Journal of Occupational Safety and Ergonomics*, 20(3), 503-513.
- CIDB., 2006. *A Macro-Economic Assessment of the Construction Industry in Malaysia*. Kuala Lumpur: CIDB Malaysia.
- CIMP., 2010. "The Challenges". The Construction Industry Master Plan (CIMP).
- Department of Occupational Safety and Health (DOSH), 2014. Available from: http://www.dosh.gov.my/index.php?option=com_content&view=article&id=795:occupational-accidents-statistics-2012&catid=458&Itemid=695&lang=en [Accessed 5 March 2017].
- Department of Occupational Safety and Health (DOSH), 2016. Available from: <http://www.dosh.gov.my/index.php/en/construction-safety/e-buletin/2016-2/2258-bil-3-2016-accident-statistics/file> [Accessed 23 February 2017].
- Department of Statistics, 2010. Kuala Lumpur, Malaysia: Putrajaya; 2010. Labour Force Survey Report.
- Elias, J., 2008. Struggles over the Rights of Foreign Domestic Workers in Malaysia: The Possibilities and Limitations of 'Rights Talk'. *Economy and Society*, 37(2), 282-303.
- Han, S.H., Park, S.H., Jin, E.J., Kim, H. and Seong, Y.K., 2008. Critical Issues and Possible Solutions for Motivating Foreign Construction Workers. *Journal of Management in Engineering*, 24(4), 217-226.
- Hinze, J., Coble, R. and Elliott, B., 1999. Integrating Construction Worker Protection into Project Design. *The Second International Conference of CIB Working Commission W99: Implementation of Safety and Health on Construction Sites*, Honolulu, Hawaii. March 24-27.
- Huang, X. and Hinze, J., 2003. Analysis of Construction Worker Fall Accidents. *Journal of Construction Engineering and Management*, 129(3), 262-271.
- International Labour Organization (ILO), 2003. Safety in Numbers. Pointers for a Global Safety Culture at Work. Geneva.
- Jaafar, M., Ramayah, T., Abdul-Aziz, A.R. and Saad, B., 2007. Technology Readiness among Managers of Malaysian Construction Firms. *Engineering, Construction and Architectural Management*, 14(2), 180-191.
- Kamal, E.M. and Flanagan, R., 2012. Understanding Absorptive Capacity in Malaysian Small and Medium Sized (SME) Construction Companies. *Journal of Engineering, Design and Technology*, 10(2), 180-198.
- Kamal, E.M., Haron, S.H., Ulang, N.M. and Baharum, F., 2012. The Critical Review on the Malaysian Construction Industry. *Journal of Economics and Sustainable Development*, 13(3), 81-87.
- Marhani, M.A., Adnan, H., Baharuddin, H.E., Esa, M.R. and Hassan, A.A., 2012. Dependency of Foreign Workers in Malaysian Construction Industry. *Built Environment Journal*, 9 (1), 39-50.
- Ministry of Human Resource (MOHR), 2006. *Induction Course for Foreign Workers Working in Malaysia*. Putrajaya: Ministry of Human Resource, Malaysia.
- Mohamed, S., 1999. Empirical Investigation of Construction Safety Management Activities and Performance in Australia. *Safety Science*, 33(3), 129-142.
- Musonda, I. and Smallwood, J. (2008). Health and safety (H&S) awareness and implementation in Botswana's construction industry. *Journal of Engineering, Design and Technology*, 6(1), pp.81-90.
- Mustapa, F. and Pasquire, C., 2008. Immigrant Construction Workers' Spending and Remittance Pattern: The Malaysian Perspective. *CIB Joint International Symposium 2008 (W055 & W065)*. Dubai: Heriot-Watt University.
- Mustapa, F.D., 2014. *Managing Immigrant Construction Workers in Peninsular Malaysia: The Economic Perspective* (Doctoral dissertation, © Fara Diva Mustapa).
- Narayanan, S. and Lai, Y.W., 2005. The Causes and Consequences of Immigrant Labour in the Construction Sector in Malaysia. *International Migration*, 43(5), 31-57.
- Ng, S.T., Cheng, K.P. and Skitmore, R.M., 2005. A Framework for Evaluating the Safety Performance of Construction Constructors. *Building and Environment*, 40(10), 1347-1355.
- Official Portal of Immigration Department of Malaysia, 2015. Recruitment Terms and Conditions of Foreign Workers. Available from: <http://www.imi.gov.my/index.php/en/mainservices/foreignworker> [Accessed 25 May 2017].
- Othman, N.A., Ahmad Latiffi, A. and Jabar, J., 2012. The Impact of Construction Supply Chain on the Implementation of Safety Management Systems. *Journal of Techno-Social*, 4(1), 49-57.

- Pillai, P., 1999. The Malaysian State's Response to Migration. *SOJOURN: Journal of Social Issues in Southeast Asia*, 14(1), 178-197.
- Sacks, R., Perlman, A. and Barak, R., 2013. Construction Safety Training Using Immersive Virtual Reality. *Construction Management and Economics*, 31(9), 1005-1017.
- Salleh, N.A.B., Nordin, N.B.M. and Rashid, A.K.B.A., 2012. Bilingual Multimedia Software Development Concept (IM-Smart Safety) as an Alternative Media for Presenting Information to Foreign Workers during Safety Course in the Malaysian Construction Industry. *International Journal of Business and Social Science*, 20(3), 190-197.
- Sawacha, E., Naoum, S. and Fong, D., 1999. Factors Affecting Safety Performance on Construction Sites. *International journal of project management*, 17(5), 309-315.
- Social Security Organization (SOC SO), 2009. Annual Report 2009. Labuan, Indonesia: Social Security Organization (SOC SO). Available from: http://www.perkeso.gov.my/images/Laporan_Tahunan_2009_Lengkap.pdf [Accessed 15 May 2017].
- Taiwan's Bureau of Labor Insurance., 2010. Council of Labor Affairs, Bureau of Labor Insurance, Executive Yuan. Available from: <http://www.bli.gov.tw/en/sub.aspx?a=A0cWbbyNSr8%3d> [Accessed 2 August 2017].
- Teck, A.G.P., Abdullah, M.N., Asmoni, M., Hamida, H.A., Misnan, M.S. and Lee, J.Y., 2015. Evaluation Criteria of Safety and Health Induction for Construction Worker (SICW) in Malaysia. *Journal Teknologi (Sciences & Engineering)*, 73(5), 93-97.
- The Star, 2015. Migrant Workers Being Lured, Exploited and Abused: Amnesty. Available from: <http://www.thestar.com.my/2F20100324174428&sec=nation> [Accessed 15 June 2017].
- Trajkovski, S. and Loosemore, M., 2006. Safety Implications of Low English Proficiency among Migrant Construction Site Operatives. *International Journal of Project Management*, 24(5), 446-452.
- U.S. Department of Labor, 2012. Occupational Injury and Illness Classification Manual. Washington, WA, USA. Available from: <http://www.bls.gov/iif/oshoiics.htm> [Accessed 21 September 2017].
- Wei, W.M. and Yazdanifard, R., 2015. The Review of Challenges Foreign Workers Face in Construction Industry of Malaysia. *Global Journal of Management and Business Research*, 15(4), 12-16.
- Yilmaz, F. 2015. Monitoring and Analysis of Construction Site Accidents by Using Accidents Analysis Management System in Turkey. *Journal of Sustainable Development*, 8(2), 57-65.