# Effectiveness of IBS in Reducing Foreign Workers in the Malaysian Construction Workforce: A Review

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#### Abstract

Nowadays, our country have totally depends on foreign workers in construction development especially in site activities. In June 2007, there are 69% (552,000) out of total 800,000 of registered workers is foreign workers according to Construction Industry Development Board (CIDB) Malaysia (CIDB, 2008). Large scale dependency on foreign worker in construction industry was producing a leak in the economy due to the repatriation of the large amount of funds outside Malaysia (CIDB, 2006). These foreign workers are from Indonesia and the Association of Southeast Asian Nations (ASEAN) is unskilled which impact on the productivity and the quality of the construction industry. Today, Industrialized Building System (IBS) is most preferred construction method which replaces the labor-intensive conventional methods. Syarul and Nor (2003) indicate that IBS promotes labor reduction, cleaner and neater sites, easy installation, fast completion, enhancement of quality finished products and flexibility. However, the use of system formwork has very limited impact on the foreign workers reduction and not to replace wet trades at site (IBS Survey, 2010). Therefore, high involvement of foreign workers problem still have to be solved. This paper is intended to review the effectiveness of IBS method on the foreign workers dependency in current Malaysian construction industry. The findings hopefully will give more clearly evidences that relates to the IBS effectiveness in reducing the dependency on foreign workers in construction industry. This in return will provide directions in producing the effective measures that will ensure labor reduction and increase local involvement in IBS construction projects.

# **Keywords**

Foreign Workers, Economy and Productivity, Dependency, IBS Effectiveness

# 1. Introduction

In Malaysian construction industry, the involvement of foreign workers produced a large impact on country especially in economies sector. According to the Bernama in 2006, the General manager of CIDB, Ir. Elias Ismail said that the large scale dependency of the construction industry on foreign worker was producing a leak in the economy as a result of the repatriation of the large amount of funds outside

Malaysia and the large presence of foreign migrant workers of different nationalities have created numerous social and health problems to the local populace. According to the Wee (2006), it is important alternative from conventional method to reduce the dependency of foreign workers in construction industry. The dependency of labor not only causes the increasing outflow of Ringgit to foreign economies, but it also brings negative impact to the nation in social and cultural context. So, it is important for local industry player to be ready and to begin sourcing for an alternative to the labor-based construction method.

This sector had contributed 2.1% of total Gross Domestic Product (GDP) for Malaysia and also grew at 5.3% in 2007. In June 2007, 69% (552,000) of the total 800,000 registered workers are foreign workers according to the Construction Industry Development Board (CIDB) Malaysia (CIDB, 2008). According to Bank Negara figures the construction sector employ's 252,000 documented foreign workers. However, the construction sector is in famous for its high number of illegal workers.

The Malaysian economy is affected by the foreign workers existence due to the majority involvement of them in this construction industry. According to the IBS Part 1 by Ir Zuhairi Abd Hamid (2009), currently there are 75 foreign workers out of 100 construction workers. This value is quite bigger when compared to the human resources utilization in construction process. Currently, there are about 318,000 foreign workers in the Malaysian Construction Industry. This total is very large and shows the intensive of the foreign workers in our country. Let say one foreign worker gain RM400 per month and when this value is multiply by times with the 12 month in a year, there will be costly about RM5,000 per year gained by each worker. For the total of 318,000 foreign workers in Malaysian construction Industry, it will be RM1.59 Billion per year. It shows the high outflow of Ringgit from the Malaysian economy. According to Shiadri (2008), the government aimed to reduce the number of foreign workers in Malaysia from 1.84 million in 2005 to 1.5 million by 2010. It is envisaged that only 200,000 foreign workers will remains in the construction industry.

The problems of foreign workers dependency has make the government to produce an initiative that effectively in reducing the foreign workers existence in construction industry. The initiative that hopes to achieve that objective is Industrialized Building System (IBS). IBS involves every level of expertise throughout the industry, from engineers, manufacturers, installers, designers, planners and developers. This method has produced great changes to the construction of projects in many aspects. It reduces the construction period, site management more efficiency and effectively, wastage reduction, cost saving and quality improvement due to the labors intensity reduction, less site material, cleaner and neater environment, and increasing of safety level and also produce a good product.

Therefore, the important reason that makes government produce IBS system is to reduce the dependency on foreign workforce in construction industry that critical in Malaysian construction industry lately. There are some evidences that show the effectiveness of IBS as an initiative in minimizing foreign workers involvement in the Malaysian construction industry currently. Hence, this paper is intended to review some evidences that relates with an ongoing research project which aims to confirm whether IBS construction method really reduces the utilization of labor in construction projects and to confirm whether there is less dependency on foreign workers. The comprehensive literature review seems to obtain the effectiveness of IBS method on the foreign workers dependency in current Malaysian construction industry. The findings hopefully will give more clearly information about IBS effectiveness as government initiative in reducing the dependency on foreign workers in construction industry. This in return will help to provide directions in producing the effective measures that will ensure labor reduction and increase local involvement in IBS construction projects.

# 2. The Scenario of Foreign Workers in the Malaysian Construction Industry

Nowadays, our country have totally depends on the foreign workers in our construction development especially in site activities. Malaysia's economy has drawn more than a million migrants from Indonesia, Philippines and Bangladesh, among others, in search of jobs. The group of foreign workers hired by the industry basically unskilled, acquires their work knowledge while assisting the more experienced workers, and thus is not meeting the industry's skill standards (CIDB News, 2002). This foreign workers are usually unskilled when they first arrived in Malaysia and this impacted the productivity and the quality of the construction industry (CIDB, 2007a).

The construction industry has shown growth rates much higher than other economic sectors. However, labor shortages were particularly critical in many important trades such as carpentry, bricklaying, concreting, tiling, bar bending, painting and plumbing by the late 1980s and early 1990s (Abdul-Aziz, 2001). Actually, the local workers were able to do what foreign workers can do. Many years ago, they can build up many buildings themselves. Based on the review, all the buildings including multistory buildings, highways even the East-West highway in early 1990s was entirely built by local as pointed out by Malaysian Trade Union Congress (MTUC). The distortion between relative price of capital and labor that always occur encourage the importing of cheap labor. In the demand for foreign workers circumstance, genuine shortage was not the factors but it was because of the desire of employers to pay lower wages (MTUC, 2002). In Malaysia, the root cause of the foreign workers intensity problem is the cost and budget constrain along with the low labour cost of them (CIDB, 2007a).

In recent years, Malaysia has absorbed huge numbers of foreign workers to work in low-paying and low skilled fields which they are employed in positions that most Malaysian refuse to do it (Ames Gross, 2002). Malaysian construction industry has been heavily dependent on the unskilled foreign workers especially from Indonesia, Bangladesh and Vietnam. In 2005, the government launched the Amnesty Programme which crippled most of the construction projects throughout Malaysia due to the absence of foreign workers (Chung, 2006). The demand for skilled labor began increasing supply from the late 1980s onwards. As consequences, foreign workers became ubiquitous on construction sites throughout the country, where construction activity was most intense (Abdul-Aziz et al., 2008).

Moreover, the real problem of foreign workers involvement in the construction industry is because of the low participation of local in this industry. According to Shiadri (2008), the local workforce is still thinking that the jobs in this sector are not dignified enough besides being labeled dirty, dangerous and difficult. As the result, the industry hired foreign workers to overcome the acute shortage of manpower. The unattractiveness of manual construction works a contributing factor to the lack of interest among local youth in joining the construction industry. According to Malaysia Report by CIDB (2008), laborintensive conventional methods of construction are still prevalent in Malaysia. This method adoption is encouraged by the cheaper cost of employment of foreign workers with the lower wages and the availability of such workers for short-term periods of work. Besides, another reason for the heavy dependency on foreign labor involves the fact that the local workforce is reluctant to be employed as construction workers in the wet trades because of the 3D-image that is 'Dirty, Dangerous, and Difficult'. Furthermore, most of these foreign workers are from Indonesia and the Association of Southeast Asian Nations (ASEAN) is unskilled and this situation will impact on the productivity and the quality of the construction industry. For this problem, there are need a solution through the R & D (Research and Development) for the construction methods. The progress towards the innovation and automation pace are relatively low due to the abundance of cheap foreign labor.

# 3. Effectiveness of IBS as an Initiative in Minimizing Foreign Workers Intensity

Recently, the dependency of foreign workers in construction activities becomes a critical issue in construction industry. The government has introduced many initiatives to cater this problem and as the

result, the government found an effective system that can reduce the foreign workers existences in site activities. The system is known as Industrialized Building system (IBS). According to Warszawski (1999), a study in 1984 for comparison of labor reduction between IBS and conventional has been proven in Israel where the result shows the much saving in site labor up to 70% by the usage of IBS. It also brought to the saving on total construction cost to 5-8% of compared to the conventional methods.

Actually, the usage of workers are reduced in IBS due to the totally dependences on machineries and plants in the components installation. In this circumstances, the skilled workers are importance and the majority of unskilled workers which most of them are foreign workers can be reduced. The previous study state that the prefabrication or IBS will reduce the number of workers and replace them with machines which make the subcontractors who rely on labor will be out of business. IBS also will decrease on the reliance of foreign workers but the country workforce actually will not be affected. Many opportunities will be open up by the usage of IBS to the local or younger generations that seem to be reluctant to be involved in the construction industry. Besides, the service from concreter, plasterer, brick layer and carpenter is no longer needed on site but in the IBS factory. A group of assembler which consist about 5 persons per project will replace their site tasks (Chung, 2006). According to CIDB (2007), a new trend such as Industrialized Building System (IBS) has been introduced in promoting the systematic construction process and reducing the dependency on foreign workers. IBS is known as the most suitable system to solve several problems in construction industry especially overused of foreign labor and low productivity rate. Besides, there also stated that can reducing the dependency of foreign workers in the construction site due to the absence of workers from other trades that are involved in the construction projects such as carpenter, brick layer, plasterer and etc. This is because the most of the components and panels have been prefabricated in the factory using the automation technology before the installation process on the construction site. The components delivered on site indirectly simplified the job process and the workers required in the site are just erectors, roofer, piling workers and other professional workforce (Chung, 2006).

Moreover, the IBS system actually can eliminate the perspective of many people about the worse condition of construction site activities. According to Chung (2006), the IBS method can create a safer environment to work which opposite the conventional method before which is dangerous and dirty. In IBS method, the components and panels are fabricated in the factory and the installation process only requires the bolts, nuts, and welding works and this will result the clean and neat construction site environment with no nails, temporary formworks and steel laying around the construction site which could lead to injuries. This environment actually will change the construction industry 3D image and at the same time will attract the local workers to involve in this industry and replace the foreign workers. Besides, the Malaysian IBS technology can encourage more participation of the local workforce in the construction industry as the research and development needs a lot of skilled workers rather than the unskilled ones. The implementation of IBS will bring the workforce to the next level of job skills which turning them to be professional and more specialized in their field that requires more intellectual and skills. As the result, the clerical and laborer's job will be reduced and enhance the thinking and analytical skills.

Furthermore, the IBS implementation is obligate to serves both to improve performance and quality in construction. At the same time, it can minimize dependency on unskilled foreign labor in the construction (Kamarul *et al.*, 2009). By using this IBS method, the utilization of human resource especially the foreign workers can be reduced.

# **4.** Majority Involvement Factors of Foreign Workers Compared With Local Workers Compared With Local Workers in IBS Construction Projects

There are many differences between foreign and local workers due to the mind set of them on the construction activities. Most of local workers are not interested to join construction activities especially

the manual labor job. According to Abdul Aziz (2001), the local youth in Malaysia would rather be unemployed than work in the construction industry because of the archaic employment practices, outdoor work and prevalence of temporary and casual labor. According to ILO (2001), various parts of the worlds indicate that construction workers do not view their employment in a very favorable light and construction regarded almost everywhere as low status job. Most people in many other countries, both rich and poor, work in construction out of necessity and not out of choice. Almost universally they wish for better things for their children. In the construction industry, the poor image of work is generally thought to stem from nature of work, which is often describe as dirty, difficult and dangerous. Actually, the real reason of poor construction work is has much more to do with the term on which labor is recruited than the nature itself. The term of employment for many construction workers around the world have been always been poor. According to the CIDB News (2002), local workforce is still thinking that the jobs in this sector are not dignified enough besides being labeled dirty, dangerous and difficult. Therefore, the industry hired foreign workers as a last result to overcome the acute shortage of manpower. Based on the previous study, the Malaysian construction industry of labor crisis not only impinging on the manpower development of the industry but due to certain reasons, local workforce is less interested to join this industry (Shiadri, 2008).

Furthermore, the perspective of local also influenced by the poor accommodation provided for the construction workers. According to Abdul Aziz (2001), in Malaysia, the poor quality of accommodation (kongsi) was the major grievance of construction workers interviewed in 1996 where estimated 82 percent of foreign workers live on the building sites where they are working. Abdul Aziz (19950 said that overcrowding, crude sanitation, uncontrolled surface water drainage and poor rubbish disposal are typical of many kongsi. Three Indonesian construction workers lost their live in 1994 when a kongsi collapsed.

Besides that, the local workers also hopes that their life will be guarantee give them many beneficial for them and their family. Based on the previous study, one of the issues of most concern to construction workers throughout the world is the insecurity of income that comes with temporary status. Providing adequate insurance against periods of sickness or unemployment as well as medical and retirement benefits is of critical importance in attracting and retaining workers in the industry (ILO, 2001). According to CIDB (2003), the local workforce is reluctant to join the industry due to the issues of low wages combined with low emphasis on occupational safety and health has created an image of dirty, difficult, dangerous (3D) industry. The local construction industry state is not in line with future development of Malaysia. By using IBS, this entire 3D factor can be managed and this can make our local workforce interesting in this industry and the human resource utilization will fully by our people.

The selective attitude of local labor which expansion of education, improvement in living conditions and access to upward mobility was made worse in the resultant labor shortage (Aman, 2008). According to Blommberg News (2005), Malaysian workers are not willing to work on a plantation or construction site as said by Executive Director of the Malaysian Employers Federation because it is hard work under the sun. Many of the 26 millions Malaysian workers want white collar jobs. Besides that, more recently, another change that has affected the inflow of new labor in construction industry is the educational change that has impacted younger generation. Nowadays, more people are seeking higher education in an effort to secure a more lucrative profession and consequently live a better life than their parent did. Most commonly see the construction worker lacks prestige, class and respectability (Shiadri, 2008).

Besides that, the former Malaysia's Prime Minister, Datuk Seri Abdullah Ahmad Badawi had said that to attract more locals to job opportunities in the sector, the industry would have to become more professional, make changes to the working environment so that it would no longer be seen as a 3D sector or "Dirty, Dangerous and Demeaning". This will indirectly also reduce the dependency of the sector on foreign workers (BERNAMA, 2009).

# 5. Concluding Remarks

Nowadays, the intensity of foreign workers in Malaysian construction industry becomes a serious phenomenon that should be handled and solved immediately due to the many problems that occurs. The construction industries will switch to a poor condition if this situation continues. Malaysia still relies heavily on foreign workers even while the government has made many strategies to reduce their involvement such as IBS implementation. Therefore, the IBS effectiveness should be rebuild with implement some strategies to make IBS implementation construction project achieve its original intension of purpose of reducing the industry dependency on foreign workers.

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