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# STRATEGIES TO REDUCE THE RELIANCE OF FOREIGN WORKERS: A CASE STUDY OF SINGAPORE'S CONSTRUCTION INDUSTRY

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#### Abstract

Singapore has one of the most open economies in the world in terms of foreign labour inflows. Foreign workers served to overcome the labour shortage in the Singapore construction sector; however, over the years the influx of and over-dependence on foreign workers have become a serious social problem and controversial issue in the country. This study attempts to examine the benefits of and problems caused by foreign workers, and propose and discuss ways to reduce the reliance on foreign construction workers in Singapore. This study is mainly based on secondary data. It was found out using foreign workers have benefits. Foreign workers can contribute to Singapore's economic growth, provide labour that the local workers avoid, reduce the cost of labour for companies, among others. However, foreign workers caused congested infrastructures, jobs competition, and housing pressures etc. To reduce the reliance on foreign construction workers in Singapore, this study proposed policies and strategies such as the minimum wage policy, "Singaporean First policy", and reducing the Dependence Ratio Ceiling (DRC), among others. These policies and strategies recommended may help to reduce the reliance on foreign workers in the country.

**Keywords** Foreign workers, construction industry, Singapore, reliance, policy

#### 1. Introduction

Since Singapore's independence in 1965, the country's economic growth has attracted a new wave of foreign manpower especially in the construction industry because the local workforce is unwilling to work in this sector Wickramasekera (2002). Singapore greatly depends on the inflow of foreign workers to support the growth of the economy since independence (Ofori, 1997). This study provides an overview of foreign workers in Singapore, and its main focus is to suggest ways to reduce the reliance on these workers in the Singapore construction industry. This is a complex issue faced in Singapore because there are both benefits and disadvantages when employing foreign workers (Thangavelu, 2012; Yap, 2014).

#### 2. Literature Review

# 2.1 OVERVIEW OF FOREIGN MANPOWER IN SINGAPORE'S CONSTRUCTION SECTOR

Construction industry in Singapore is one of the most important industries that are closely related to other economic sectors. The construction industry in Singapore contributes around 6.5 per cent of Gross Domestic Product (GDP) in 2014. According to Singapore's Statistic Bureau, the total construction output was estimated to be around \$33.30 billion in 2013. Singapore uses some of the most advance construction method and technologies available, and is constantly providing training and up-skilling to the workers (Ofori, 1997). One of the key distinguishing feature of the construction industry in Singapore is that it relies greatly on foreign workers, even the largest construction companies in Singapore employ and relies on foreign workers (Lim & Alum, 1995). This practice has been linked to the industry's poor image and labour-shortage problems (Ofori, 1997; Thangavelu, 2012; Yap, 2014). There are only about 104,000 local residents, or 3.3% of the total labour force, working in this sector (Ministry of Manpower, 2015). As of December 2014, the sector employed over 491,000 workers comprising mainly foreign workers (Ministry of Manpower, 2015).

Employing foreign workers with temporary work pass is a global business trend, especially in countries that faces labour shortage in a specific industry (Rogler, 1994). Yap (2014) and Rogler (1994) noted that Singapore ranks as one of the countries in the world with the highest proportions of foreigners in its population and among its workforce. Foreigners make up close to 40% of its total workforce, and over 30% of its 5.43 million population in June 2015 (Ministry of Manpower, 2015). Singapore construction industry and other economy sectors has been experiencing acute

labour shortages since the 1970s when Singapore had achieved full employment (Cunningham & Debrah, 1995; Debrah, 1994). Yap (2014) found out that in 2009, there are still shortage of labour, especially in construction sector. According to (Ministry of Manpower, 2015), there are three main types of work passes in Singapore, namely work permit (WP), S-Pass (SP), and Employment pass (EP). Meanwhile, foreign construction workers are classified into three classes based on their respective skills and academic standings. The highest class is the skilled workers, the middle class consists mainly of the semi-skilled and the lowest class is the unskilled workers. A New Skills Framework for the construction sector in Singapore was implemented since 2011 with increasing requirement on the workers' skill level.

#### 2.2 FOREIGN WORKERS - PROS

# 2.2.1 Contribute to Singapore's economic growth

Piper (2004) and Borjas (1994) noted that foreign workers can push up the income of the economy as the low cost of employing foreign workers can lead to more investment and the skilled foreign workers could also contribute to the increase of productivity. Singapore reaps unlimited benefits from its importation of skilled and unskilled foreign labor, it enables Singapore to increase its Gross National Product (GNP) and also quicken Singapore's economic and GDP growth (Borjas, 1994; Fong, 2006; W.-T. Hui, 2002; Piper, 2004; Thangavelu, 2012). Fong (2006) found out that 41% of Singapore's GDP growth in the 1990s came from the inflow of both the skilled and unskilled foreign workers.

The use of foreign workers will not constrain economic growth and economic restructuring. Rather, it can acts as buffer for cyclical demands for labors, meaning that during a business boom, more foreign labor will be employed while a recession will see fewer foreign workers being employed. This way, the economy will be insulated from business cycle (Chew & Chew, 1995; Chia, 2011; Piper, 2004).

# 2.2.2 Helps in the declining total fertility rate

Gubhaju and Moriki-Durand (2003) found out that some countries in Asia have total fertility rates (TFRs) at or below replacement level. This is more serious in countries like Singapore, Republic of Korea, Japan and China. The implications are momentous as they affect the age structure of the population, giving rise to population ageing and labor force shortages.

The TFRs among Singapore residents was only 1.2% in 2012. With a low TFR in Singapore, the country might become a small population with an aging society, which will affect the economy of the country (Chia, 2011).

# 2.2.3 Provide labor that the local workers avoided

By the mid-1970s local workers preferred to work for lower wages in other sectors, or even stay jobless rather than take up the many jobs that are available in the construction industry (Ofori, 1997). Subsequently, contractors and consultants working in the design, engineering, and construction industries faced labor shortage and unable to tender for construction projects. The use of foreign workers would help the situation improve (Ofori, 1997). Chia (2011) noted that as Singaporean become better-educated and increasingly affluent, they will want to move towards high value-add industries and shun lowly-paid and "dirty, demeaning and dangerous" (3D) jobs so there is a need of foreign workers to fill these vacancies.

# 2.2.4 Transfer relevant skills to the local workers

Foreign skilled professional and managers have the transferred and relevant skills, technology and capital while the unskilled foreign workers ensured the labour-intensive sector such as the construction sector have sufficient labours to complete the works (Piper, 2004). Leow (2010) noted that foreign workers are not only increase the human capital directly but also indirectly by transfer their knowledge to Singaporeans. Skilled foreign workers could also bring the distinguish knowledge which could link Singapore to globe and achieve a sustainable development (Leow, 2010; Yap, 2014).

# 2.2.5 Reduce the cost of labour for companies

Werner (1996) highlighted that foreign workers in Singapore can cut the cost of labour. The benefits that arise from the lower labour cost due to qualified and cheaper foreign workers, increases efficiency and strengthens the competitive position of individual companies and the national economy.

Without foreign workers, companies need to pay higher wages to the local workers which will result in higher price in outputs, this mean that the price of housing and complete projects will increase.

# 2.2.6 Reduce the use of illegal workers

Yap (2014) found out that the food and beverage (F&B) and construction sectors appear to be the main users of illegal foreign workers in Singapore. Werner (1996) found out with the use of foreign workers, illegal labour in the country is reduced, and highlighted that due to the shortage of labour in a

country, companies may relies on illegal workers if the use of foreign workers is being greatly controlled.

# 2.2.7 Enable Singaporeans to enjoy good social and municipal services

Foreign workers provide healthcare, eldercare and domestic services to support the ageing population and working families. Foreign construction workers build housing and infrastructure, and do maintenance and conservancy work. Thus, without foreign construction workers in Singapore, Singaporean will not be able to enjoy the good infrastructure and housing.

Foreign workers may help in reducing inflationary pressure on Singaporeans, by simulating some costs of living for the local citizens (Thangavelu, 2012). Many say that the foreign workers reduce the jobs opportunity for local workers, but the Government of Singapore claim in their paper that the foreign workers flow into jobs sector that Singaporean are unwilling to do.

#### 2.3 FOREIGN WORKERS – CONS

# 2.3.1 Caused social problems

Foreign workers served to overcome the labour shortage in a country. However the over-dependence on foreign workers had caused social problems (Abdul-Rahman, Wang, Wood, & Low, 2012). With an influx of foreign workers in Singapore, there are pressures on housing, and congestions for public services and infrastructure in the country (Gross, 2011; Kim, 2013; Thangavelu, 2012). Thangavelu (2012) also found out that foreign workers are competing for jobs, housing, schools, medical care and space in public transport. Yap (2014) notes that with the increase of foreign workforce in Singapore, it would cause overcrowding in the country.

# 2.3.2 Communication problems

Communication problems with foreign workers are difficult, Toh (1993) highlighted that the problem faced by foreign construction workers and Singaporean is language; communicating between Singaporean and largely semi-literate or illiterate foreign workers is difficult and often caused misunderstanding between the foreign workers and locals.

# 2.3.3 Widening income inequality and jobs competition

Foreign workers would disturb and upset disadvantaged groups of local workers by undercutting their already low wages and widening income inequality (Briggs Jr, 1994; Camarota, 2005; Ofori, 1997; Yap, 2014). Yap (2014) found out that some foreign workers are willing to accept lower

wages than the local workers. This led to increased competition for jobs and local workers are put at a disadvantage as employer will choose to employ the worker who accepts the lower cost of production. Ofori (1997) highlighted that cheap foreign workers drive down the income of local workers and this would further erode the attraction of careers in the industry.

# 2.3.4 Low productivity and slow economic restructuring

Chia (2011) highlighted that with low-skilled workers will delay Singapore economic restructuring and result in lower productivity performance. Wu and Thia (2002) found out that Singapore's overall Total Factor Productivity (TFP) growth could have been higher if not for foreign labour. The "labour churning" practice of replacing foreign workers by new batches on expiry of their work permits, meant foreign workers are unable to improve productivity through training and accumulating work experience. Similarly, Thangavelu (2012) found out that foreign workers have negative effects on productivity in a panel study of 24 OECD countries, as each foreign worker is estimated to be only two thirds as efficient as a local worker.

# 2.4 POLICIES TO THE RELIANCE ON FOREIGN CONSTRUCTION WORKERS IN SINGAPORE

# 2.4.1 Progressive increase in foreign workers levy

To control the inflow of foreign workers in Singapore, Singapore devised a new immigration policy in 1980, using a price mechanism called foreign workers levy (Ofori, 1997). Foreign construction workers were the first for whom employer had to pay a levy (Ofori, 1997). The levy would make employment of foreign workers expensive (Ofori, 1997; Toh, 1993). In April 1982, the foreign worker levy was introduced for work permit holders in all sectors including construction (Ofori, 1997). In 2015, the construction levy for higher skilled and basic skilled workers is \$600 and \$950, respectively.

# 2.4.2 Reduction in Man-Year-Entitlement (MYE) quota

MYE refers to the total number of foreign workers a main contractor is entitled to employ, based on the value of contracts awarded by developers. It is allocated in the form of the number of "man-years" required to complete a project (i.e. 1 man-year = 1-year employment under one work permit). There is a cumulative of 45% reduction in MYE quota from 2010 - 2013, this means that while previously a project before 2013 may be allocated 1000 workers, but a new project of the same scale that start from July 2013 would only be granted 550 workers. The Government did not propose to reduce the

MYE quota in 2014 and 2015, but indicated that the foreign levies for the basic skilled foreign construction workers will be increased.

# 2.4.3 Dependency ratio ceilings (DRCs)

The DRCs refers to the maximum permitted ratio of foreign workers to the total workforce in the stipulated sector is allowed to hire. Different industries have different DRCs. In construction sector, the DRCs is 1 local: 7 foreigners. The construction DRCs is the highest DRCs across all sectors in Singapore (Ministry of Manpower, 2015). In 2012 and 2013, the Government has tightened the foreign worker quota by reducing the DRCs in some sectors (Oon, 2012). However, this does not affect the DRCs in the construction industry as the DRCs for the construction remained the same since 2010. Yap (2014) found out that DRCs enable Singapore to reduce the reliance on foreign workers and curb the growth of foreign workers, but industries may face labor shortage if the DRCs quota is too low.

# 2.4.4 Boost local workforce through incentives

To boost and retain the local workforce, there will be more incentives given to older workers, early retirees, homemakers. There are incentives introduced to attract and retain older workers. Employers will get a Special Employment Credit (SEC) for their Singaporean workers who are above 50 years old. The SEC will be 8 per cent of the salaries and will cover almost 350,000 older Singaporean workers. The scheme will be in place up to 2016.

However, W. T. Hui (2002) notes that increasing older workers labor force participation in Singapore is limited compared to countries like Japan and Sweden. Singapore's labor force participation rate for those aged 55 to 59 in 1999 was close to 73 per cent and 28 per cent, for males and females respectively (W. T. Hui, 2002).

# 2.4.5 Fair Consideration Framework (FCF)

The FCF had implemented on August 2014, as part of the Government overall effort to strengthen the Singaporean core in the workforce. With FCF, before employing new EP holders, companies must advertise the job vacancy on a new jobs bank administered by the Singapore Workforce Development Agency (WDA). The advertisement must be open to Singaporeans, comply with the Tripartite Guidelines on Fair Employment Practices and run for at least 14 calendar days (Ministry of Manpower, 2015).

#### 3. RESEARCH METHOD

This is a conceptual paper which presents the results of an extensive review of the literature on foreign worker issues. It start with literature reviews, which had investigated and interpreted what previous researchers have carried out. Qualitative information provides an understanding of the benefits and problems of foreign workers. Given the nature and scope of this study falls on the Singapore context, as well as the difficulty of searching every related research work. The qualitative secondary data collected for this study are mainly from various sources such as Government white paper, academic papers, government reports, and books. The reason these sources are used is because of its reliability. In addition, policies and management of foreign workers from other countries (i.e. Hong Kong and Malaysia) were also consulted. Subsequently, this study proposes the implementing strategies and policies to reduce to reliance of foreign worker in Singapore.

# 4. Discussion

This study recommends a few new polices to effectively reduce the reliance of foreign construction workers. It also suggests making changes to current policies in order to reduce the reliance of foreign workers effectively, these new changes made will bring benefits to the society.

#### 4.1 MINIMUM WAGES

Minimum wage is the lowest level of remuneration an employer must pay an employee to work legally (Hui, 2013). This is an important policy that balances the needs of an economy with those of low-income workers so that economic growth occurs in a sustainable manner. Most developed countries in the world have minimum wages. Currently in Singapore, there is no minimum wage, only the cleaning sector have mandate basic level wages of SGD\$1,000, and from September 2016 onwards the mandate basic level wages of SGD\$1,100 will be implemented to the security sector.

In Hong Kong the minimum wage came into force on 1 May 2011, the minimum wage had benefited the low paid workers, these workers enjoy increases in their monthly salaries (BBC News, 2011). One of the reasons to implement minimum wages is to boost the pay of Hong Kong lowest paid sectors of the society and to reduce poverty (BBC News, 2011). A survey conducted by the People's Alliance for Minimum Wage in Hong Kong found out that workers in the cleaning, security guards and catering industry benefited the most. Thus, this study recommends national minimum wage policy should be implemented in Singapore. However, the national minimum

wage in Singapore must not be standardized, meaning the minimum wage will be determined by occupation and industries. If the national minimum wage is standardized, people may switch to a less physical demanding job, in the case of Hong Kong. It may also cause an impact in the industries local workers avoided, such as construction. The minimum wages in Singapore should not include the foreign work permit holder in the construction sector and the foreign domestic workers. If the minimum wage includes the entire workforce, foreign construction work permit workers may increase instead of decreases, if there are still no locals willing to undertake the construction jobs.

Even with a minimum wage policy, which lead to higher wages, local workers may still unwilling to undertake "3D" jobs, to address this issue, this thesis suggest that industries such as construction and process sector should have a higher minimum wage when compared to other sector, such as banking where there is a low proportion of foreign workers.

# 4.2. "SINGAPOREAN FIRST" OR FAIR CONSIDERATION FRAMEWORK (FCF)

Singapore had implemented the FCF, but the requirement apply only to firms applying for EPs, and not for S Passes and WPs holders. The main rationale of FCF is to give priority to Singaporeans for jobs.

This section begins with the loopholes of the FCF. The loopholes are the employers can make the wages and benefits unappealing to local workers so this will deter them from applying and hence they can bring in foreign workers for the jobs. Employer can put tough job description and unappealing requirement to deter the local workers; however upon hiring a foreign worker, there may be internal discussion to make amendments to the job requirement.

It is hard for the Government to check if the job description applies after the hiring process. FCF hiring process is rather subjective, as the employer may interview many local applicants, but select none due to biased and subjective reasons such as lack of suitable skills and experience. With the few loopholes identified, FCF may not work in the Singapore and in Singapore's construction industry. It is then proposed that "Singaporean First" policy to reduce the reliance on foreign construction workers. The "Singaporean First" policy means that the employer must try their best to employ a local first. If an employer is unable to hire a local worker, they must submit a comprehensive document stating that hiring a foreign worker is necessary and MOM must approve. With this policy, job continue to be created for Singaporeans.

#### 4.3 PROGRESSIVE INCREASE IN FOREIGN LEVY

Singapore has foreign levies which are progressively increasing to encourage employer to reduce reliance on the foreign workers. However this study found that increasing the foreign worker levy is ineffective and unlikely to reduce Singapore reliance on foreign workers, instead it will increase the financial burden on employers. The progressive increase in foreign levies is part of the Government's plan to control the influx of foreign workers, but this may not work because employers may pass on the additional cost to their employed foreign workers, thereby diminishing any incentives to switch to employing Singaporeans. Locals that working in a foreignerdominated sector, such as the construction sector, their wages will fall correspondingly and leave unsolved social problem and stagnating salaries. This forces the local workers to leave and avoid the construction sector. This study suggests that there should be foreign levy policies in Singapore, but the foreign levy should be paid by the foreign workers instead of the employer, in the case of Malaysia. The amount of levy to be paid should be pledged to the wages and skill level of a foreign worker, unlike the current fixed levy that is paid by the employer. This policy also helps to reduce the reliance on foreign workers in Singapore because foreign workers may not wish to pay the levy by themselves.

# 4.4 RAISING THE QUALITY OF FOREIGN CONSTRUCTION WORKERS

There are many unskilled foreign construction workers in Singapore, and the bulk of them hold basic skilled (R2) worker permit holder. Figure 1 shows the classification of construction work permit holders after July 2011.

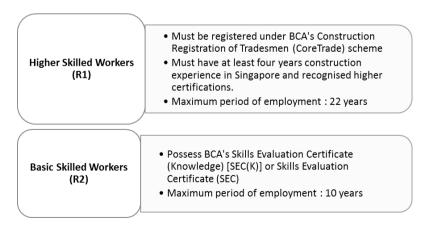


Figure 1: Classification of Construction Work Permit Holder Source: Building Construction & Authority (2012)

Reducing the number of R2 work permit holder by increasing the use of higher skilled (R1) work permit holder might be a viable strategy. A pool of higher skilled workers will reduce the needs for basic skilled workers thus reducing the number and reliance of foreign construction workers.

The current maximum employment period of a R2 construction work permit holder can be employed in Singapore is 10 years. It is recommended to reduce the maximum employment period of these workers to 7 years. However, the R2 workers can stay employed in Singapore if they are eligible to upgrade their work permit to higher skilled (R1) status after their maximum period of employment of 7 years. During their period of employment, R2 workers will be given opportunity to attend training to upgrade their knowledge and skills. These R2 workers must pass a skill test and meet all R1 work permit requirements before they can upgrade their work permit to R1. Those that failed to meet the requirements will not be allowed to renew their work permit.

One of the requirements to apply for R1 work permit is to have at least four years' experience in Singapore construction industry, this study proposes to reduce the years of experience needed to two years, but the applicant must pass a comprehensive test before they are allow apply for the R1 work permit. The reason is to reduce the years of experience is because these workers may have relevant work experiences before coming to Singapore.

# 4.5 DEVELOP A CORE HIGHLY SKILLED LOCAL WORKERS

It is necessary to enhance the image of the construction industry in Singapore. There must be a change of mindset toward blue collar work, such as in construction, through education. The reason to enhance the status of local workers in the construction sector is that they can take pride in their employment. With an enhanced status, it may even draw more locals to join the construction industry, thus reducing the reliance of foreign construction workers. The construction industry in Singapore must re-establish its position in the job market as a profession that is innovation, creativity and productivity, doing this will improve the image and status of the construction industry. To have a better employment condition, Government agencies such MOM and BCA must work together to promote better welfare and wages for the local workers. For example, currently BCA is giving generous scholarships and sponsorships to the local students. This study suggests that student should learn both management and construction skills in the course of their studies, as doing so may reduce the reliance on foreign workers as some of the jobs can be performed by the local graduates.

#### 5. Conclusion

This study has highlighted the benefits of foreign workers, which include helps in Singapore's economic growth, transfer relevant skill to the local workers, and reduce the cost of labour for companies. The consequences of employing foreign workers that are found out are as follows, social problems, job competitions and others. Moreover, this study proposes various ways to reduce the reliance of foreign construction workers in Singapore construction industry. This includes raising the quality of foreign construction by providing sill-upgrading, develop a highly core skilled local workers by providing apprenticeship training and higher starting salary, etc.

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