

**MANAGERS' RESPONSES TO SINGAPORE'S  
FOREIGN LABOR POLICY: A STUDY OF THE  
MANUFACTURING AND MANUFACTURING  
RELATED SERVICES SECTORS**

**KHEMMANIT WATTANATINNACHOT**

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by

**KHEMMANIT WATTANATINNACHOT**

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**RESPON PENGURUS TERHADAP DASAR BURUH ASING SINGAPURA:  
SATU KAJIAN DI SEKTOR PEMBUATAN DAN PERKHIDMATAN  
BERKAITAN PEMBUATAN**

**ABSTRAK**

Tesis ini adalah kajian terhadap respon pengurus terhadap dasar pekerja asing Negara Singapura dalam konteks sektor perkhidmatan perkilangan dan sektor perkhidmatan yang berkaitan dengan pembuatan. Kajian ini menggunakan teori structuration untuk menggambarkan interaksi pelakon yang berbeza, negara, pekerja asing dan pengurus. Kajian ini memberi persefahaman tentang hubungan perindustrian di Singapura, khususnya peranan negara dalam membentuk dasar pekerja perindustrian dan luar negeri. Kajian ini menerapkan wawancara separuh berstruktur dengan 25 orang pengurus dalam lima industri perkilangan yang berbeza, iaitu industri elektronik, kimia, kejuruteraan biologi, kejuruteraan ketepatan dan industri kejuruteraan pengangkutan. Kajian menunjukkan bahawa pilihan pengambilan pengurus dibentuk oleh dasar pekerja asing Singapura apabila mengupah pekerja Pas R dan Pas S dalam sektor perkilangan berbanding dengan sektor perkhidmatan yang berkaitan dengan pembuatan. Tanggapan pengurus berbeza-beza mengikut industri masing-masing dan keperluan tenaga kerja-tidak mahir (Pas R), separuh mahir (Pas S) dan pekerja mahir (Pas Q dan Pas P) untuk mengisi jawatan-jawatan yang berbeza dalam sektor pembuatan dan sektor perkhidmatan berkaitan dengan pembuatan. Pengurus yang mengupah pekerja Pas R dalam kedua-dua sektor tidak dikekang oleh kuota, manakala pengurus yang mengupah pekerja Pas S di sektor pembuatan dikekang oleh kuota, terutamanya industri kejuruteraan ketepatan. Walau bagaimanapun, pengurus yang mengupah

pekerja Pas S dalam sektor perkhidmatan berkaitan dengan pembuatan dikekang oleh faktor-faktor seperti kelayakan pendidikan, penentusahan kesahihan ijazah, kenaikan gaji yang layak untuk pekerja Pas S pada 2019 dan 2020, levi Pas S meningkat pada masa depan, dan kebijaksanaan kerajaan untuk kelulusan aplikasi pas kerja. Kajian menunjukkan bahawa pengurus dalam kedua-dua sektor mampu membuat keputusan strategik dalam menanggapi kenaikan kos yang ditanggung oleh pungutan Pas R dan Pas S. Bakat asing telah menyebabkan akibat yang tidak diingini - kebencian di kalangan warga Singapura kerana persaingan untuk pekerjaan. Pengetatan dasar bakat asing melalui gaji kelayakan baharu untuk pekerja Pas Q membantu mengurangkan kebencian rakyat Singapura tetapi menghadkan pilihan pengurus yang mengupah pekerja Pas Q. Kajian menunjukkan bahawa Rangka Kerja Pertimbangan Pantas akan membantu warga Singapura yang mahir dalam mencari pekerjaan, tetapi tidak menjamin bahawa mereka pasti akan mendapat pekerjaan. Pengurus telah menggunakan strategi yang berbeza untuk mengurangkan kekurangan tenaga kerja tempatan dan terus berdaya saing dalam ekonomi.

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**ABSTRACT**

The thesis is a study of managers' responses to Singapore's foreign labor policy in the context of the manufacturing and manufacturing related services sectors. The study adopted structuration theory to describe and explain the interaction of different actors such as the state, foreign workers and managers. The study provided an understanding of industrial relations in Singapore, particularly the role of the state in shaping its industrial and foreign labor policy. The study adopted twenty-five semi-structured interviews from managers in five different manufacturing industries, namely the electronics, chemical, biomedical engineering, precision engineering and transportation engineering industries. The study showed that managers' choices of hiring were shaped by Singapore's foreign labor policy when hiring R Pass and S Pass workers in the manufacturing sector compared to the manufacturing related services sector. Managers' responses varied according to their respective industries and manpower needs - unskilled (R Pass), semi-skilled (S Pass) and skilled workers (Q and P Passes) to fill out different positions in the manufacturing and manufacturing related services sectors. Managers hiring R Pass workers in both sectors were not constrained by the quota whereas a manager hiring S Pass workers in the manufacturing sector was constrained by the quota, especially the precision engineering industry. However, managers hiring S Pass workers in the manufacturing related services sector were constrained by factors such as educational qualifications, the verification of degree authenticity, the increase in the qualifying

salaries for S Pass workers in 2019 and 2020, the S Pass levy increase in the future, and the government's discretion for the approval of work pass applications. The study showed that managers in both sectors were capable of making strategic decisions in responding to rising costs incurred by the R and S Pass levies. Foreign talents caused unintended consequences – resentment among Singaporean citizens because of competition for jobs. The tightening of foreign talent policy through the new qualifying salary for Q Pass workers helped reduce resentment but constrained managers' options who hired Q Pass workers. The study showed that the Fair Consideration Framework would help skilled Singaporeans in finding employment but did not guarantee that they would certainly obtain jobs. Managers adopted different strategies to alleviate local manpower shortages and to remain competitive in the economy.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 INTRODUCTION**

As a small city nation with limited natural resources, Singapore has long been reliant on human capital for economic growth and development. Over the years, a major force shaping the human capital landscape in Singapore has been the increased presence of foreign workers. This has been prompted by the need to grow the population and augment domestic labor supply due to the declining fertility rates and the increase in aging population. According to Singapore Department of Statistics (2019), Singapore experienced the declining fertility rates from 1.96 births per female in 1988 to 1.14 births per female in 2018. Moreover, the proportion of Singaporean residents aged 65 years and over has increased from 8.8 percent in 2009 to 14.4 percent in 2019. Consequently, Singapore has to rely on foreign workers. The Singapore government has always had the ‘open door’ policy for skilled foreign workers assisting Singapore to achieve its goals of industrialization and maintain the viability of high-technology and high-value added industries (Fong 1992). In addition, the need for unskilled foreign labor is inevitable since they act as cyclical buffer, help keep wage costs down for labor-intensive businesses and provide workers in low-wage 3-D jobs (dirty, dangerous and demeaning) in the construction, marine, services and manufacturing sectors shunned by Singaporeans (Fong 1992). According to Mediacorp (2019), foreign employment in Singapore excluding domestic workers increased by around 22,000 people between June 2018 and June 2019 mainly due to an increase in unskilled foreign workers driven by growth in the



services sector and the construction sector. In other words, unskilled foreign workers help augment domestic labor in Singapore.

The liberal foreign worker and immigration policy has contributed to social, political and economic problems, thereby creating a growing resentment among local Singaporeans against foreign workers who compete with locals over scarce resources (Wong 1997). As a result, migration became particularly politicized in Singapore's General Elections in 2011 when the ruling People's Action Party (PAP) recorded its lowest percentage of the vote since independence (Yeoh and Lin 2012). Furthermore, the Little India riot reinforced anti-foreigner sentiments among Singaporeans. The riot started when a private bus accidentally caused the death of an Indian construction worker and led angry mobs of migrant laborers who were passersby to attack the bus involved and emergency vehicles that arrived at the location (Neo 2015). Subsequently, the government was put under public pressure to slowdown the inflow of migrant laborers due to a political necessity in view of voter sentiments. The government was increasingly aware that its liberal foreign labor policy produced the erosion of political support. In order to maintain political support from Singaporean voters, the government has adopted restrictive measures such as higher levies and reduced quotas in the manufacturing, marine, construction and services sectors (Ministry of Trade and Industry 2013).

In Singapore, foreign workers constituted approximately 41.2 percent of Singapore's total labor force in 2018 (Singapore Department of Statistics 2018). With the government's policy to control the inflow of unskilled foreign labor, manufacturing companies in Singapore have been struggling with rising business

costs. Moreover, the government's policy has made it difficult for manufacturing companies to hire foreign workers because of levy increase and quota reduction, thereby leading to the reduced number of foreign workers. As a result, employment in the manufacturing sector decreased significantly from 424,622 workers in 2012 to 400,173 in 2015 (Woo 2016).

In addition, the 2013 Population White Paper indicates that the Singapore government has encouraged manufacturing companies to be productivity driven through technological innovation. Therefore, there will be a significant upgrading of the Singaporean workforce towards professional, managerial and executive (PME) jobs (Ministry of Trade and Industry 2013). As Singaporeans become more educated, they will not look for non-PME jobs. Consequently, Singapore will need a significant number of foreign workers to complement the Singaporean core in the manufacturing workforce. The 2013 Population White Paper also predicts that the Singapore workforce in non-PME jobs will be decreased significantly and the number in non-PME jobs is expected to fall from 850,000 in 2013 to 650,000 by 2030 (Ministry of Trade and Industry 2013).

According to George Huang, President of the Singapore Manufacturing Federation, there is a need for manufacturers to achieve greater innovation and productivity in order to stay competitive and achieve long-term sustainable growth. However, there will be a need to have additional unskilled foreign workers in the manufacturing and manufacturing related services sectors to support economic growth otherwise the country can lose the dynamism and vibrancy in its economy (HRM Asia 2013).

## **1.1 JUSTIFICATION FOR CHOOSING SINGAPORE AS THE FOCUS OF THE STUDY**

This section aims to provide the justification for choosing Singapore as the focus of this study. Since the researcher is a Thai PhD candidate who spends time working and living mostly in Thailand before and during her PhD study, hence the researcher is familiar with the issues related to foreign labor and the government policy on the employment of foreign workers in Thailand. Moreover, the researcher's experiences and observation in Thailand and Singapore led the researcher to review the literature on the subject matter that enabled the researcher to come to a conclusion that Singapore is successful in its foreign labor policy which is evident in its competitive economy as a developed country.

From the researcher's experiences when visiting Singapore prior to PhD study, the researcher's observation was that Singaporeans hardly performed low-paid jobs at retail shops, hotels and restaurants but most people who worked in these places were unskilled foreign workers from less developed countries. Therefore, these experiences prompted the researcher to find out more about the rationale for foreign labor in Singapore besides their willingness to perform jobs with low pay. Hence, the researcher chose Singapore as the focus of this study since the country has foreign workers with different levels of skills. This can be seen from various work passes (R, S, Q and P Passes) for different types of foreign workers (unskilled, semi-skilled and skilled) set by the government.

Singapore has absorbed a large number of foreign workers to help ease the tight labor condition due to aging population and low fertility rates (Tan 1996 and

Chia 2011) and the country has been reliant on foreign labor both unskilled and skilled foreign workers for economic growth and development (Fong 1992). However, the Singapore government aims to reduce the foreign workforce to one-third of Singapore's total workforce by 2030 (Ministry of Trade and Industry 2013). By contrast, Thailand has not experienced a sharp decline in the fertility rates but has been able to maintain the birth rate at 500,000 per year to keep the country's economy and manpower afloat due to the government's measures such as tax deductions for child support, childbirth cost and a subsidy from the government to support the cost of raising newborn children until three years old (National Economic and Social Development Board 2018). However, Thailand is entering an aging society and the number of Thai citizens aged 60 or older will rise to 13.1 million or 20 percent of the total population (Chaitrong 2017). Hence, Singapore is a unique case to study to see how managers in Singapore in the manufacturing and manufacturing related services sectors work within the constraints of local manpower shortages and Singapore's changing foreign labor policy which has become more stringent.

In addition, Thailand's system of managing foreign manpower has not been effective since there have been inflows of illegal migrant laborers from Cambodia, Lao and Myanmar entering Thailand for employment since the beginning of the 1990s and they are mainly concentrated in the fishing industry (Paitoonpong and Chaksirinont 2007). It was estimated that the total number of illegal migrant laborers was approximately 1.5 to 2 million people (Kunakorn 2007). Illegal migrant laborers from these three countries have been a major source of labor for the commercial fishing sector in Thailand due to their willingness to work in dangerous working

conditions and to perform high-risk jobs since there is a high possibility of being caught and prosecuted for having no fishing licenses and fishing in neighboring countries' territorial waters (Sasipornkarn 2019). Hence, the researcher chose Singapore as the focus of the study since Singapore's system for managing foreign manpower enables the government to effectively manage the employment of foreign workers using quantity instruments (work passes and quotas), a price system (levy) and quality control (education and experience).

According to Rattanapan(2016), employers in the manufacturing and services sector hiring unskilled foreign workers in Thailand are not subject to the foreign worker levies, quotas and security bonds and they are not required to provide accommodation and health insurance for them. As a result, employers tend to hire illegal migrant laborers from neighboring countries such as Laos, Cambodia and Myanmar entering Thailand due to lower wages compared to Thai workers. The Ministry of Labor of Thailand has not been able to come up with a solution to control illegal migrant laborers and is still in the process of finding suitable measures for managing unskilled foreign workers efficiently (Rattanapan 2016). Therefore, Singapore's system for managing foreign manpower should be a good example that Thailand can learn from in terms of managing the employment of unskilled foreign workers effectively.

Moreover, there are two types of work permits given to foreign workers (unskilled and skilled) in Thailand: new and renewed work permits (Paitoonpong and Chaksirinont 2007). Companies in Thailand that want to hire skilled foreign workers have to obtain work permits from the Department of Employment (Bangkok Post

2017). Unlike Singapore, Thailand is not overwhelmed by a large number of skilled foreign workers since forty percent of the estimated 475,000 positions can be filled by skilled foreign workers by 2023 (Mala 2019). This is due to skills mismatch in the Thai labor market since seventy percent of new graduates hold degrees in social sciences while degrees in sciences (e.g. data mining, biotechnology, biochemistry and medical tourism) are in great demand (Mala 2018). As such, the Thai government is not put under public pressure to control the number of foreign workers as compared to the Singapore government. Therefore, the researcher chose Singapore as the focus of the study to have a better understanding of how Singapore's foreign labor policy constrains managers' options for hiring skilled foreign workers while at the same time managers have to meet the demand of skilled labor in their companies. In other words, choosing Singapore for this study is to understand and explain Singapore's foreign labor policy and responses from managers.

## **1.2 RESEARCH PROBLEM**

Despite being a knowledge-based economy, Singapore faces the domestic constraints of land and labor (Daquila 2007). The country's limited supply of domestic labor is due to aging population (Low 2001) and low birth rates (Fong 1992 and Khoo 2016). As a result, the changes of demographic structure have provided impetus for Singapore to import foreign labor to drive the country's industrial upgrades (Ortiga 2015). In spite of the domestic constraints of land and labor, Singapore has been able to achieve its goal of industrialization and subsequent upgrading due to foreign investment and foreign workers (Huff 1994). Therefore, these have provided Singapore with international capital inflows enabling the country to create economic growth and maintain its competitiveness. However, the

government's foreign labor policy aims to slow down the influx of foreign labor (social structures), and the needs for both skilled and unskilled foreign workers (social actors) are still inevitable. Therefore, Singapore is a unique case to study within the application of structuration theory since the theory will help explain foreign labor policy in the context of Singapore's social and economic structures.

Although the manufacturing sector is an important pillar of the Singapore economy, firms in Singapore have incorporated manufacturing-related services into their businesses. This is because many firms without plants in Singapore either entirely carry out the production process (e.g. the physical transformation and the assembly of the products) by related entity located overseas or outsource to a third party such as contract manufacturers in other countries (Ministry of Trade and Industry 2015). Moreover, Singapore has strengthened the growth of manufacturing-related services activities that encompass both the pre-production activities, which include activities such as research and development and product design as well as the post production stage, which encompass activities such as logistics, distribution, customer support, marketing and sales (Ministry of Trade and Industry 2015). In other words, manufacturing related services activities are part of the manufacturing sector. In addition, it was difficult to obtain all twenty-five interviews with managers in the manufacturing sector due to the researcher's limited network. Therefore, this study needed to include the interviews from managers in the manufacturing related services sector. Nevertheless, it is also appropriate to study Singapore's foreign labor policy in relation to the manufacturing related services sector since it has grown in tandem with the manufacturing sector over the years.

There are several studies on foreign labor policy and migrant workers in East Asian and western countries. Studies by Antecol et al (2004) and Akbari and MacDonald (2014) examine the admission policies of Canada, the US and Australia for migrant workers and conclude that the US, Canada and Australia welcome highly educated migrants but limit the access for low-educated migrants. Studies by Ducanes (2013) and Abella (2009) show that the Japanese and South Korean governments recruit migrant laborers for the manufacturing sector through a government-managed trainee program and a guest worker program, respectively and both countries have the high level support for highly skilled foreign workers. Nevertheless, it is important to study foreign labor policy in relation to the manufacturing and manufacturing related services sectors in the region, especially Singapore where the foreign worker levy and quota are imposed due to the government's foreign labor policy.

As Singapore is trying to increase productivity growth in the manufacturing and manufacturing related services sectors, but in the meanwhile the country is reducing employers' reliance on unskilled foreign labor. Therefore, it is also significant to study such policy, particularly on how managers from the manufacturing and manufacturing related services sectors in Singapore respond to it. This includes strategies that companies in both sectors adopt to sustain their competitiveness amid labor shortages.

In addition, the trends in migration research and discourse in Singapore have revolved around the issues such as migration and social development, foreign labor and economic development in Singapore, the evolution of foreign labor policy and



other works which are linked to immigration matters such as multiculturalism, diaspora, transnationalism and national identity (Rahman 2008). Moreover, several studies on foreign workers have mainly focused on labor productivity as well as substitution or complementary relationship between local and foreign labor (Dupuy and DeGrip 2003; Parasnis, 2010; Thangavelu 2015; Ramsterter 2016). This study is different from these previous studies since it focuses on industrial relations in Singapore, particularly the role of the state in shaping its industrial and foreign labor policy, and responses from managers in the manufacturing and manufacturing related services sectors.

With the change in foreign labor policy in 1998, the Singapore government has become more focused to retain foreign talents across the sectors, such as the banking and financial sector, legal services and telecommunication (Chew and Chew 1995; Low 2001; Yap 2014). The retention of unskilled foreign workers is seldom discussed. Therefore, this study will discuss the retention of unskilled foreign workers.

Previous studies on Singapore's foreign labor policy conducted by scholars (Chew and Chew 1995; Low 2001; Tat 2002; Yap 2010; Chia 2011; Yap 2014) used information from the government's sources such as official statistics and reports from the Ministry of Manpower, the Ministry of Trade and Industry and the Singapore Department of Statistics. Academic articles and journals were also adopted by these scholars. They primarily relied on secondary data to study, examine, discuss and analyze foreign labor policy. Within these studies, scholars have focused on different issues. For example, the evolution of foreign labor policy

and implications of foreign labor (Chew and Chew 1995), foreign talents (Low 2001), the system for managing foreign man power (Tat 2002; Yap 2010; Yap 2014) and the rationale, policies and impacts of foreign labor (Chia 2011). Therefore, this study is different from these previous studies since it focuses on industrial relations in Singapore, particularly the role of the state in shaping its industrial and foreign labor policy. Moreover, the method of this study is different compared to these previous studies. Semi-structured interviewing adopted in this study will provide a different account on managers' rationale for hiring different types of foreign workers, their responses to Singapore's foreign labor policy for unskilled, semi-skilled and foreign talent policy, the new qualifying salary for Q Pass holders, the Fair Consideration Framework, ways to deal with rising costs from levies, strategies to sustain competitiveness amid labor shortages and practices for retaining unskilled foreign workers. In other words, the research will provide description to answer research questions.

### **1.3 SIGNIFICANCE OF RESEARCH**

Firstly, the outcome of the study will contribute to the existing corpus of knowledge on industrial relations in Singapore, particularly the role of the state in shaping its industrial and foreign labor policy, and responses from managers in the manufacturing and manufacturing related services sectors.

Secondly, the outcome of this research will provide insights to policy makers for the improvement of the regulatory framework of foreign manpower.

Thirdly, the research will differentiate the manufacturing sector from the manufacturing related services sector, especially in the electronics, chemical, biomedical engineering, precision engineering and transportation engineering industries, with more information and practical knowledge to sustain its competitiveness since empirical responses will be obtained by managers who organize, plan, control and direct manufacturing activities on a day-to-day basis. In addition, the findings of this research on retaining unskilled foreign workers will be more or less useful, applicable and adaptable.

Fourthly, this research will contribute to a better understanding of structuration theory that helps to explain the rationale of managers in the manufacturing and manufacturing related services sectors for hiring different types of foreign workers and their responses to Singapore's foreign labor policy in the context of Singapore's socioeconomic and political structures. This research will also show the interplay of structure and agency in the way that the state uses its foreign labor policy as the mechanism to control the demand and supply of foreign workers and managers' choices for hiring foreign workers are shaped by the state's foreign labor policy.

#### **1.4 RESEARCH OBJECTIVES AND RESEARCH QUESTIONS**

The research aims to provide the rationale of managers in the manufacturing and manufacturing related services sectors for hiring foreign workers. It also aims to provide managers' responses to the Singapore's foreign labor policy for unskilled foreign workers, semi-skilled foreign workers and skilled foreign workers. In addition, the research aims to explain the strategies that manufacturing and

manufacturing related services companies have implemented to sustain their competitiveness amid labor shortages, and understand the reasons for adopting such strategies. Hence, all of these objectives lead to the following research questions:

1. Why do managers in the manufacturing and manufacturing related services sectors in Singapore hire foreign workers?
2. What are managers' responses to Singapore's foreign labor policy for unskilled foreign workers, semi-skilled foreign workers and skilled foreign workers?
3. What are the strategies that manufacturing and manufacturing related services companies have implemented to sustain their competitiveness amid labor shortages?
  - 3.1 Why do these companies adopt such strategies or plans?
  - 3.2 In what ways do these companies retain unskilled foreign workers?

To answer all three research questions, qualitative data collection through semi-structured interviewing helped the researcher to provide, explain and understand Singapore's foreign labor policy based on the responses of managers in the manufacturing and manufacturing related services sectors.

## **1.5 OPERATIONAL DEFINITIONS**

In this research, there are some important terms that need to be defined for a better understanding since the research was conducted in the context of Singapore's foreign labor policy.

### **1.5.1 Unskilled Foreign Workers**

In this study, unskilled foreign workers are R Pass holders. Generally, there are several versions to describe unskilled foreign workers who have also been recognized as workers who perform low-paid manual jobs or labor-intensive jobs. In this research, the researcher uses the terms unskilled foreign workers, migrant laborers and low-skilled foreign workers interchangeably since these terms are similar in nature (Sill 2002). However, in the context of Singapore's foreign labor policy, R Pass workers are foreign workers who earn a fixed monthly salary of less than S\$2,000 (Ministry of Manpower 2017). Employers hiring them are subject to a security bond of S\$5,000 for each R Pass worker, the foreign worker levy and quota. However, the security bond stipulation does not apply to Malaysian workers (Ministry of Manpower 2017). In this research, R Pass workers include basic operators, preventive maintenance workers, warehouse workers, short-term contract traffic surveyors and outsourced delivery workers.

### **1.5.2 Semi-Skilled Foreign Workers**

In this study, semi-skilled foreign workers are S Pass holders. These include customer service officers, administrative officers and technicians. According to the Ministry of Manpower (2017), S Pass workers are foreign workers with a fixed monthly salary of at least S\$2,200. They must have a recognized degree or diploma with relevant work experience. Employers hiring S Pass workers are subject to the foreign worker levy and quota but not a security bond. The foreign worker levy and quota for S Pass holders is shown in Table 4.1 in Chapter 4.

### **1.5.3 Skilled Foreign Workers**

In this study, skilled foreign workers are foreign workers with P and Q Passes. Q Pass workers include biomedical engineers, sales engineers, precision engineers, sales representatives at UTB Freight Company. P Pass workers include accountants, pharmacists, PhD researchers, transportation engineers and sales representatives at Toyoma and SP Precision Companies. According to the Ministry of Manpower (2017), Q Pass workers or mid-level skilled foreign workers are foreign workers with a fixed monthly salary of at least S\$3,600. P Pass workers are foreign professionals, managers, executives and specialists with a fixed monthly salary of at least S\$4,500. Employers hiring Q Pass and P Pass workers are not subject to the foreign worker levy and quota.

### **1.5.4 Foreign Worker Levy**

The Ministry of Manpower (2017) defines the foreign worker levy as a pricing mechanism to control the number of foreign workers in Singapore and it is paid monthly by the employer of the worker to the government. The levy varies according to sector, the percentage of foreign workers in a company and the type of skill (higher skilled and basic skilled). The foreign worker levies for R Pass holders is shown in Table 4.2 in Chapter 4.

### **1.5.5 Dependency Ceiling or Quota**

The Ministry of Manpower (2017) defines dependency ceiling or quota as the maximum percentage of foreign workers a company is allowed to employ as part of its total workforce. It varies according to sector and type of work pass. The dependency ceiling for R Pass holders by sector is shown in Table 4.3 in Chapter 4.

### **1.5.6 Manufacturing Sector**

In this study, the manufacturing sector includes companies that possess manufacturing facilities in Singapore. There are six manufacturing companies from different industries included in this study. These companies are in the electronics, chemical, biomedical engineering and precision engineering industries. They are typically involved in the actual production activities such as transforming raw materials into products and assembling products.

### **1.5.7 Manufacturing Related Services Sector**

The manufacturing related services sector in this research includes companies that do not possess manufacturing facilities in Singapore. There are nineteen manufacturing related services companies from different industries included in this study. They are in the electronics, chemical, biomedical engineering, precision engineering and transportation engineering industries. These companies are mainly involved in post-production activities such as sales, customer services and freight services. However, PSU Pharma Company in the chemical industry is also involved in pre-production activities such as research and development.

### **1.5.8 Productivity**

According to Norsworthy and Fulco (1976), productivity measures output per unit of input such as labor and capital and is typically calculated for the economy as a ratio of gross domestic product (GDP) to hours worked. Productivity is also defined as the efficient use of resources, labor, capital, land and materials in the production of various goods and services (Conway 2019). However, this study did not adopt the quantitative approach, but the qualitative approach and that was semi-

structured interviews. Therefore, the productivity of foreign workers in this research depends on managers such as low employee turnover and positive work behaviors.

### **1.5.9 Strategies to Sustain Competitiveness**

Since Singapore's constraints lie in high labor and operating costs and limited land and natural resources, therefore the strategies to sustain competitiveness adopted by manufacturing and manufacturing related services companies in this study mainly focus on alleviating domestic labor shortages, being price competitive and adding revenues to companies. As such, the strategies to sustain competitiveness adopted by companies vary.

## **1.6 THEORETICAL FRAMEWORK**

This section aims to justify why structuration theory is an appropriate theory to be adopted to study the responses of managers in the manufacturing and manufacturing related services sectors to Singapore's foreign labor policy for unskilled, semi-skilled and skilled foreign workers as compared to other theories such as structural-functional, preference and rationalization theories.

### **1.6.1 Structural-Functional, Preference and Rationalization Theories**

Structural-functional theory perceives society as a complex system of interrelated and interdependent parts working together to maintain stability (Durkheim 1964). The theory looks beyond individuals to social facts such as laws, religious beliefs, customs and rituals that serve to govern social life. Hence, the theory does not take into consideration the interactions of different agents (the state,



migrant workers and managers). Moreover, to understand how manager think and make decisions when hiring foreign workers in Singapore, the macro-structure of Singapore (its natural resources, geography and demography) needs to be considered since the country is limited in terms of land, natural resources and domestic labor, thereby leading to stringent foreign labor policy. Hence, structural-functional theory is not a suitable theory for this study since it does not take into consideration the concept of structure and agency to explain the rationale and responses of managers.

Preference theory puts emphasis on genuine choices that are open to individuals in the sense that the vast majority of individuals have choices, not only particular subgroups in the population (Hakim 2002). In this study, although managers have managerial agency (professional norms, professional knowledge and legitimacy) that enables them to make strategic decisions that can achieve their organizational goals and profit maximization when hiring foreign workers and dealing with rising costs from levies. However, managers' decisions were constrained by Singapore's demographic and geographical structures (e.g. low birth rates, aging population and limited land and natural resources) and the government's foreign labor policy that aims to reduce reliance on foreign workers. Hence, preference theory overlooks the influences of social, economic, demographic and institutional factors that shape managers' choices for hiring different types of foreign workers to fill vacancies in their companies. Since the theory overlooks these factors, it is not an appropriate theory for this study because Singapore's politics, society, labor force and economy must be taken into consideration in order to understand managers' rationale and responses to hiring foreign workers.

From the notion of rationality, organizations and people governed by rationality adopt the best actions to achieve their goals and results can be calculated or estimated by considering the methods by which results will be achieved, which is termed as instrumental oriented actions (Gingrich 1999). Moreover, social actions can be valued oriented actions by which the actions taken out of the self-conscious conviction that the actions have values inherent to themselves and are independent of any outcome they might or might not have (Oakes 2003). In other words, instrumental oriented actions and value oriented actions are different by intentions: commitment to calculability in the former case, commitment to a binding conviction in the latter case. However, rationalization theory overlooks the structural constraints that limit the range of options for individuals and denies that structures have in any sense a reality of their own (Albano et al 2010). In other terms, structures are only situated in the actors' mental processes. Therefore, the theory is not a suitable theory to explain and understand how managers make decisions within the constraints of Singapore's foreign labor policy which is not purely economics in nature but it has social and political implications to meet the expectations of the local societies.

### **1.6.2 Justification for the Use of Structuration Theory**

In this study, there are terms that need to be explained so that readers can easily relate to structuration theory. According to Turner (1986), structure is defined as rules and resources used by actors or agents in interaction. Actor or agent is defined as a knowledgeable and capable subject (Giddens 1979). In this study, the term 'actor or agent' can refer to the government, managers/employers/companies and foreign workers/migrant workers (unskilled foreign workers/migrant laborers, semi-skilled foreign workers and skilled foreign workers). The terms 'superordinate

agent and subordinates' are used to show power relations in the sense that superordinate agent is superior to subordinates in terms of access to rules and resources. The control facilitated by the effectiveness of rules and resources allow superordinate agent to achieve a certain outcome by relying on the compliance of subordinates (Giddens 1979).

From the above three theories, we can see that they are not suitable theories for explaining managers' rationale to hiring foreign workers and their responses to Singapore's foreign labor policy in the context of Singapore's socioeconomic and political structures. In addition, several studies on Singapore's foreign labor policy have mainly discussed the measures to control foreign workers and this includes work pass, the foreign worker levy and quota (Chew and Chew 1995; Ofori and Debrah 1998; Low 2001; Tat 2002; Yap 2010; Chia 2011; Yap 2014). However, none of these studies take into consideration the interaction of different actors (the state, migrant workers and managers) in the macro-structure of Singapore (its natural resources, geography and demography) as compared to structuration theory that takes into consideration the relationship between individuals and society. Therefore, structuration theory is an appropriate theory to be adopted for this study.

In addition, structuration theory helps explain managers' responses to Singapore's foreign labor policy for all three types of foreign labor (unskilled, semi-skilled and skilled). For example, the levy requirement (structure) constrained managers in the manufacturing sector who hired unskilled and semi-skilled foreign workers but managers were able to choose appropriate modes of actions to deal with rising costs from levies. With their leadership and managerial agency, managers

hiring Q Pass workers (skilled foreign workers) were able to overcome the constraint of the new qualifying salary for Q Pass holders by hiring skilled foreign workers with several years of experience and hiring local workers to save costs. Therefore, structuration theory is a suitable theory for this study since the theory involves a discussion of rules and resources (structural principles) that are transformed into power, sanctions, and communication among agents in the interactions of hiring three types of foreign workers in this study.

By using structuration theory, it is able to predict the outcomes since managers understand the regulations governing the hiring of foreign workers in Singapore. With the government's objective of reducing the foreign workforce (structure) to about one-third of Singapore's total workforce by 2030 (Ministry of Trade and Industry 2013), it can be predicted that managers will plan for their companies' human resource and strategy-capital intensive, which is in order to avoid the increasing dependence of foreign workers over the long term. Structuration theory can predict these outcomes because the theory emphasizes the dualism of structure and agency (duality of structure), by which rules and resources adopted to reduce the foreign workforce are produced and reproduced by agent (the government) that mediates institutionalized patterns of interaction (Turner 1986).

Moreover, the strength of this theory is the dynamics of human agency since the government has the capacity to rationalize their conduct (discursive consciousness) whereas managers possess practical consciousness (stock of knowledge) that they use to orient themselves to situation (the government's objective of reducing the foreign workforce) and to interpret the acts of others. In

other words, actors reflexively monitor their own conduct and the conduct of others (Turner 1986).

### **1.6.3 Structuration Theory in the Context of Singapore's Foreign Labor Policy**

Singapore has always been reliant on human capital for economic growth and development due to land and natural resource constraints. Despite Singapore's limited size and natural resources, the government places emphasis on economic growth which has led to the need for unskilled foreign workers to fill labor shortages in 3-D jobs (dirty, dangerous and demeaning) which Singaporeans refuse to perform, hence keeping wage costs down for labor-intensive businesses. On the other hand, workers from underdeveloped countries where capital is scarce are forced to depend on the sale of their labor power. Therefore, they are in search of higher wages and better economic opportunities so they move from countries of capital scarcity and labor abundance to countries with capital abundance and labor scarcity. The social structures and social actors are not two independent identities but exist and function in a duality reciprocal relationship (Giddens 1984).

The migration decisions of individuals are affected by socioeconomic conditions since individuals move in and out of economic spaces including physical locations and socioeconomic niches (Fawcett and Arnold 1987). On the other hand, employers in Singapore may choose migrant labor to increase domestic labor supply, keep wage costs down for labor-intensive jobs and maintain the competitiveness of industries. The social structures bring together migrant workers and the overseas employers stretching social relations across time and space. As quoted by Cohen

(1989: 132), “activities (migrant labor) are coordinated across time and space because agent (the government) knows when, where, and how to relate to others (migrant workers and employers) during the course of their interactions.”

According to Singapore Department of Statistics (2019), Singapore experienced the declining fertility rates from 1.96 births per female in 1988 to 1.14 births per female in 2018. Moreover, the proportion of Singaporean residents aged 65 years and over has increased from 8.8 percent in 2009 to 14.4 percent in 2019. The number of Singaporeans who chose to work or live abroad also increased from 157,800 in 2004 to 213,400 in 2016 (Chan-Hoong 2017). With the declining fertility rates, aging population and the emigration of Singaporeans, the government needs to bring in skilled foreign workers to cope with domestic labor shortages. Therefore, skilled foreign workers are an important workforce to drive Singapore towards a technology-driven path of growth as the government aims to achieve its economic restructuring towards higher-value added manufacturing in response to the increased competition in the advancement of globalization. Consequently, this has led to the liberalization of foreign talent policy. Having a well-educated and highly skilled foreign workforce, Singapore has been able to attract foreign direct investment for the high end industries. The government has adopted rules (foreign talent policy) and allocated resources (work passes, permanent residency and citizenship) to attract foreign talents to Singapore. As indicated by Turner (1986: 972), “rules and resources are produced and reproduced by agents who reflexively monitor interactions.”

As a result of the transformation of industrial structure, this has contributed to the arrival of more foreign workers and resulted in the changes of demographic structure of Singapore. Consequently, foreign workers constituted approximately 41.2 percent of Singapore's total labor force in 2018 (Singapore Department of Statistics 2018). Moreover, forty percent of all marriages involve someone of a different nationality, thereby reinforcing Singapore as a multicultural and multiethnic society (Chang-Hoong 2013). The government applies allocative resources and authoritative resources (non-material resources) in the generation of power over migrant workers to shape the country's foreign labor policy.

However, the government did not realize the unintended consequences from the liberalization of immigration. The increasing number of foreign workers has resulted in subsequent social transformations, such as job competitions, congested public places and transportation, depressed wages and housing shortages (Yeoh and Lin 2012). The government's liberal foreign labor policy created resentment among Singaporeans and became politicized in Singapore's General Election in 2011 when the ruling People's Action Party (PAP) recorded its lowest percentage of the popular vote at 60.1 percent since independence (Yeoh and Lin 2012). Consequently, the government was put under public pressure to slow down the inflow of foreign workers using measures such as work pass, the foreign worker levy and quota.

The PAP also did not perform well on immigration policies and its popular vote went down from 75 percent in the 2001 general election to 67 percent in the 2006 general election (Gopalakrishnan and Lim 2011). Immigration issue was the hot-button issue among Singaporeans who complained about competition for jobs