

Chapter 5

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Chapter 5

Structural Adjustment and International Migration in the Thai Garment Industry: Revisit

Archanun Kohpaiboon and Juthathip Jongwanich¹

1. Introduction

One facet of the ongoing process of economic globalisation is the increasingly important phenomenon of cross-border movement of unskilled workers, driven by differences in economic development and demographic factors, such as population ageing (Salt, 1992; Global Commission on International Migration, 2005; World Bank, 2006; ILO, 2006). This issue is even more pronounced in the economic landscape in East Asia, and Indochina in particular, as income disparities in the region are considerable, and the scope for regional cooperation to achieve potentially mutual benefits from international migration is substantial. Thailand and its Indochina neighbours share long common borders. Any attempt to prevent cross-border movement is unlikely to be fully effective and could result in corruption and human trafficking.

On one hand, some countries in the region have only recently started to integrate into the global economy. They still have an abundance of labour and low wage rates. While these countries are gradually realising their economic potential, sending workers abroad to earn a living is seen as a short-term economic option to mitigate unemployment and poverty. In addition, skills gained by these workers could improve overall productivity and promote the economic development process in their home country.

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On the other hand, many countries in the region are facing a tighter labour market and continued increases in real wages. This is more pronounced in ageing economies, such as Thailand, and could catalyse structural adjustment. In this regard, the options are to (i) improve the productivity of existing workers; (ii) employ foreign workers; (iii) increase capital spending; and (iv) export capital, over and above the effort to improve productivity. Despite the need, governments in the labour-receiving countries have been reluctant to allow an inflow of workers, especially of unskilled labour. One of the many social and economic consequences of importing unskilled foreign workers relates to the possible negative effects on technological progress and the structural adjustment process by firms. When firms can employ unskilled foreign workers to support structural adjustment, they may eventually become too reliant on them. Subsequently, their investment and other decisions could be made on the premise that labour costs will continue to be held down by migration. As a result, such firms will remain at the low end of the value chain and rely on low wages as the key factor in competing in the global market. This will retard upgrading.

However, there are no a priori arguments suggesting that the decisions to upgrade and to employ unskilled foreign workers are related. They could vary from firm to firm. Domestic-oriented firms operating under a high tariff structure are more likely to experience adverse effects on their technological progress from employing low-wage, unskilled foreign workers. High tariffs would make such firms less likely to seek advanced technology, such that low-wage, unskilled foreign workers could make firms remain at the low end of the value chain and eventually abandon upgrading, compared with export-oriented industries, such as clothing and footwear, where multinational enterprises play an important role in global trade (Humphrey and Schmitz, 2002; Rabellotti, 1997; Schmitz and Navdi, 1999; Gereffi, 1999; Gereffi and Memedovic, 2003). These multinational enterprises not only negotiate price and delivery times, they also demand that suppliers implement specific procedures when fulfilling orders. In addition, multinational enterprises play a pivotal role in establishing decentralised

production networks in a variety of exporting countries. Combined with competition from the increasing number of labour-surplus economies integrating globally, it is unlikely that suppliers subject to the tight labour market will simply employ low-wage foreign workers to survive at the low end of the value chain.

These developments all point to the need for a systematic microanalysis to understand the corporate behaviour of employing unskilled foreign workers, including what employers are looking for, the extent to which the labour market is segmented, and what the alternative options are. A better understanding of this behaviour would be helpful in designing sensible policies regarding migrant workers.

This chapter aims to revisit the study by Kohpaiboon, Kulthavit, and Jongwanich (2012) for two main reasons. First, the situation in Thailand (a labour-importing country) and its neighbours (labour-exporting countries) has changed. The Government of Thailand's policy stance on migrant workers has changed to managing, rather than preventing, the flow of these workers. Second, economic progress during 2010–2015 in the labour-exporting countries, such as Cambodia, Lao PDR, and Myanmar, encouraged some foreign workers to return home to benefit from the increasing job opportunities at home. This economic progress may have been supported by an influx of foreign direct investment into the labour-exporting countries, especially Myanmar.

These changes result in some uncertainty about employing foreign workers by the labour-importing country's firms, which could affect the decision to employ such workers, given that imported labour incurs fixed and sunk costs for firms. To gain a better understanding of the changes, a survey of enterprises and workers was implemented for this study.

The paper is organised as follows. Section 2 discusses the analytical framework, illustrating the choices facing firms undergoing structural adjustment and considering the relative merits of

the different options. Section 3 discusses the research methodology. Section 4 presents the policy environment, together with the overall performance summary of the clothing industry. The analysis is in Section 5, and the conclusions and policy options are considered in the final section.

2. Analytical Framework

Economic globalisation plays an important role in structural change, both within and across firms and industries. Within firms, structural adjustment requires the reallocation of labour and capital to more efficient uses. In theory, when a firm is undergoing a structural adjustment process because of labour market tightening and a continued increase in real wages, the options available are to (i) improve the productivity of the existing workers, (ii) employ foreign workers, (iii) increase capital spending, and (iv) export capital.

The first option seems to be an impulse response by firms facing a labour shortage and a straightforward option for all firms. Some export-oriented firms have integrated improvements in worker productivity as a routine response. However, the scope of productivity improvement activities is wide and each has a different impact on the firms' competitiveness. Firms under intense competitive pressure must prioritise such activities and allocate their limited resources accordingly. Different decisions might result in a different outcome.

Under the second option, firms can be expected to proceed in the same manner as during the labour-surplus phase of development. The only difference is that abundant supplies of labour at subsistence wage levels are drawn from abroad. However, in theory, importing labour could retard technological progress. Once entrepreneurs become accustomed to the steady availability of unskilled workers, this could slow productivity improvement. Investment and other decisions are then made on the premise that labour costs would continue to be held

down by migration. In general, a reliance on migrant workers is likely to postpone capital spending and technological progress in the labour-receiving country. In addition, there are always concerns about the non-economic consequences of importing low-wage foreign workers, such as cultural contamination and the disruption of social peace.

The third option involves implementing labour-saving technology (Kindleberger, 1967). In theory, this option occurs naturally. As the labour surplus is exhausted and real wages rise, firms have an incentive to introduce labour-saving technology, so that the country's capital-labour ratio increases over time. The public, especially in the developing countries, view this option as far superior to the other options, as it is seen as an indicator of a country's successful industrial development. In practice, a smooth adjustment does not occur automatically, and depends on how effectively the preconditions, such as skilled workers and infrastructure, have been established. More importantly, many preconditions are directly related to the role of government. Another factor is the involvement of multinational enterprises. If their entry is based predominantly on the relative cost competitiveness of the given country on a global scale and they operate in their own enclaves, they can always relocate to another low-wage location rather than upgrade and/or adapt their production process to suit the conditions in the domestic market.

The fourth option concerns exporting capital. In theory, this option is open to all types of firms; in practice, it is only available to large firms in the tradable goods sectors, operating in an oligopolistic market environment. As postulated in the literature on foreign direct investment, a firm contemplating this step must be able to use its proprietary technology abroad to offset any potential disadvantages it faces compared with local firms possessing superior knowledge on the availability of factor inputs, business practices, and/or consumer preferences in the host country (Dunning, 1993; Caves, 2007). In addition, foreign firms with global networks and more experience in doing business abroad would be better placed to use this option compared

to indigenous firms. This is particularly true for small and medium-sized enterprises. In addition, relocating factories abroad generally entails a reduction in national income of the capital-exporting country, and therefore a net loss to that country.² The exception would be relocation by locally owned firms, as they would reap the rewards of their foreign operations and increase national productivity. Nevertheless, labour's share of the national product would be hurt.

Choices between these four options are, to some extent, related to a firm's decision to compete in world markets at that firm's current stage of economic development and upgrading. For policymakers, the second option (employing foreign workers) is the least favourable and most controversial. One possible negative effect of this option on the structural adjustment process by firms concerns the upgrading process. After employing unskilled foreign workers, firms may eventually become too reliant on them, and remain at the low end of the value chain. This could ultimately hinder upgrading. However, there are no a priori arguments to suggest that decisions to upgrade and employ unskilled foreign workers must be related. This is especially true for export-oriented industries, such as clothing and footwear, where multinational enterprises play an important role in global trade (Rabellotti, 1997; Schmitz and Navdi, 1999; Gereffi, 1999; Humphrey and Schmitz, 2002; Gereffi and Memedovic, 2003). They also play a role in promoting the upgrading of processes and determining the trade success of the developing countries' exporters.³ These multinational enterprises not only negotiate price and delivery times, they also demand that suppliers implement specific procedures when fulfilling orders. This is especially true for the North–South trade, for which there is a wide

² Welfare improvement could result by shifting production to foreign affiliates. This occurs when the entry of foreign affiliates is driven by tariff or protection motives (Bhagwati, 1973; Brecher and Diaz-Alejandro, 1977; Brecher and Findlay, 1983). In this circumstance, the investment-receiving country could experience immiserising growth induced by the entry of foreign firms, so that their departure could increase (rather than reduce) national welfare.

³ For a more detailed discussion, see in Kohpaiboon (2006: Chapters 7 and 8) for the experience of processed food industries and Section 6.2 for garment industries. In Bair and Gereffi (2003), Gereffi (1995, 2002), Abernathy et al. (2005), the role of multinational enterprises is known as the buyer-driven value chains.

range of required quality parameters, including input specifications, quality measurement, product design, and labelling and packaging (Keesing, 1983; Rhee et al., 1984). While some aspects may be of little interest in the developing countries, consumers in the developed countries are highly sensitive to them, and these requirements are vital to market success. In the global trade structure, multinational enterprises play a pivotal role in setting up decentralised production networks in a variety of exporting countries. Combined with competition from the increasing number of labour-surplus economies integrating globally, it is unlikely that suppliers under the tighter labour market would simply employ low-wage foreign workers in order to survive at the low end of the value chain.

Numerous empirical studies of labour economics, mainly based on developed countries' experience, point to the impact of technological change on increasing the demand for skills.⁴ As a result, capital-deepening and labour-importing options are presumed to be mutually exclusive. In addition, policymakers generally favour capital deepening to the other two options, as this is widely regarded as the most desirable form of economic development.

Nonetheless, empirical results for developing countries remain few, despite the immense policy relevance (Berman and Machin, 2004). It is also unclear whether there is a positive relationship between technological change and the demand for skilled workers for traditional, labour-intensive industries, such as garments and footwear, where labour remains a crucial primary input in the production process. In addition, the labour skills needed by these industries consist of both tacit knowledge and knowledge acquired through learning by doing, rather than through a formal education system. This implies that the degree of substitution between labour and capital is not perfect. Hence, it could be both possible and sensible for firms to choose these two options simultaneously as the labour market tightens. The capital-exporting option that might be an alternative to importing labour is also not generally

⁴ See the literature survey by Katz and Autor (1999).

available to firms in these industries, most of which are small and medium-sized enterprises. Note that the capital-exporting option would include relocating factories to rural areas. It is economically difficult for them to recover the fixed and sunk investment costs abroad.

Finally, employing foreign workers could be the last resort for firms as their preference often favours local workers. Hence, wage would become the second factor in hiring one over the other in any work decision. Migrant workers enter a country primarily to take up occupations that the local workers shun. Such occupations can be either tasks that involve a monotonous work process or jobs that provide no opportunity for career progression. A clear example is jobs considered 'dirty, dangerous and difficult' (3D jobs) in the labour migration literature. These positions may entail relatively high wages, but the locals shun them because of the nature of the work involved.

3. Research Methodology

To address the issue, firm-level panel data are needed. Information relating to a firm's behaviour in productivity-enhancing activities (capital deepening and capital exporting) and employing foreign workers must be included in the data set. In addition, the time dimension in the panel data must be long enough to capture the productivity gains from the various productivity-enhancing activities. However, such data are unlikely to be available for many developing countries, including Thailand.

Given this data constraint, a compromise solution was to conduct surveys of enterprises and workers. The survey of workers was based on a well-prepared questionnaire, and the survey of enterprises was handled by a flexible questionnaire approach in which a formal questionnaire was developed and completed by personal interviews. The interviews lasted an average of 45 minutes and were conducted by the authors. Personal interviews were conducted to gain insight into the issues at stake. This minimised the chance of missing important aspects of the

story and maximised the insight into what was happening. The main advantage of this method is that it provides a useful insight into the firms' decision-making process between the four options (productivity improvement, labour importing, deepening of capital, and exporting of capital), and any potential interaction with a firm's productivity, all of which are unlikely to be revealed in a short panel data econometric exercise.

The survey was conducted during October–December 2015, and involved 25 garment firms, 186 Myanmar workers, and 120 Thai workers using three different questionnaires.⁵ The interview samples were well-distributed across firms of different sizes, measured in terms of the number of workers. Eight of the firms surveyed employed fewer than 100 workers (referred to as small firms), eight firms employed 100–1,000 workers (medium-sized firms), and nine firms employed more than 1,000 workers (large firms). Two firms are located in Mae Sot District in Tak Province, in the border area between Thailand and Myanmar. The rest have factories, headquarters, or both, in or near Bangkok. The interview sample covered a wide range of products (Table 5.1).

⁵ Questionnaires are available upon request.

Table 5.1: Products Manufactured by the Sample Firms Interviewed

Item	Number
Knitted	
T-shirts	9
Sport wear	4
Men's wear	5
Lady's wear	6
Underwear	5
Socks	0
Others (Babywear, uniforms, environmentally friendly)	5
Not knitted	
Working wear	4
Sport wear	6
Pants/Trousers	7
Men's shirt	6
Men's suits	2
Coat	2
Jacket	2
Lady's blouse/shirt	6
Skirt	5
Infants'/kids' wear	3
Underwear	2
Others (Uniforms, environmentally friendly)	2

Note: One enterprise can produce more than one product line.

Source: Research team.

Of the total, 16 firms employ foreign workers, from Myanmar in particular, and 19 firms are exporters. Nine firms have more than one factory in Thailand, most which employ more than 1,000 workers. Some have set up in or near Bangkok, whereas others have factories in the north (Mae Sot Province), central (Chai Nat Province), east (Prachinburi Province), and northeast (Kalasin, Nong Khai provinces) regions of Thailand. All of the firms access labour in these rural areas. Seven firms, all of them large enterprises, have affiliates in Cambodia, Myanmar, or Viet Nam.

There were 118 workers employed in five companies. Of these, 58 Thai workers have direct experience of working with foreign workers. The staff we interviewed at the five companies

hold middle management, upper management, or higher positions. There were 97 female and 21 male workers (Table 5.2). The average age of the workers was 34 years for women and 35 years for men. The oldest worker in the survey was 56 years old. Most workers had been with their current company for 7 years on average. About 60% of the workers were married and 54% had children. Nearly 70% were originally from the northeast region and 12% were from Bangkok.

Table 5.2: Summary of Thai Workers in the Survey

Item	Female	Male	Total
Number of workers	97	21	118
Age	34 (54)	35 (56)	34
Marital status	59	12	71
Number of children of workers	54	10	64
Years working at the current factory			7.1

The age of the oldest worker is in brackets.

Source: Compiled from the survey in this study.

All the foreign garment workers in the survey were originally from Myanmar. The total sample number was 186 employees working in 10 different companies (Table 5.3). We also interviewed 85 female and 101 male workers members of staff in middle management, upper management, or higher positions at 7 of the 10 companies. The average age of the workers interviewed was 27.6 years old. Half were married. Myanmar workers in this survey were mainly from the Bamar (84%) ethnic group, followed by the Mon (8%), Kayin (4%), Rakhine (2%), Kayah (1%), and other (1%) ethnicities (Table 5.4). They had been living in Thailand for nearly 6 years on average. Their previous jobs were in other industries.

Table 5.3: Summary of Foreign Workers in the Survey

Item	Female	Male	Total
Number	85	101	186
Age	29.1	26.3	27.6
Marital status	42	50	92
Average years living in Thailand	6.6	5.3	5.9
Average years working in Thailand	6.6	5.1	5.8
Average years working at the current factory	3.1	2.7	2.9

Source: Compiled from the survey in this study.

Table 5.4 Distribution of Foreign Workers according to their Ethnic Group

Ethnic Group	Number	%
Kachin	0	0.0
Kayah	2	1.3
Kayin	7	4.4
Chin	0	0.0
Mon	12	7.5
Bamar	134	83.8
Rakhine	3	1.9
Shan	0	0.0
Others	2	1.3

Note: Percentages may not total 100% because of rounding.

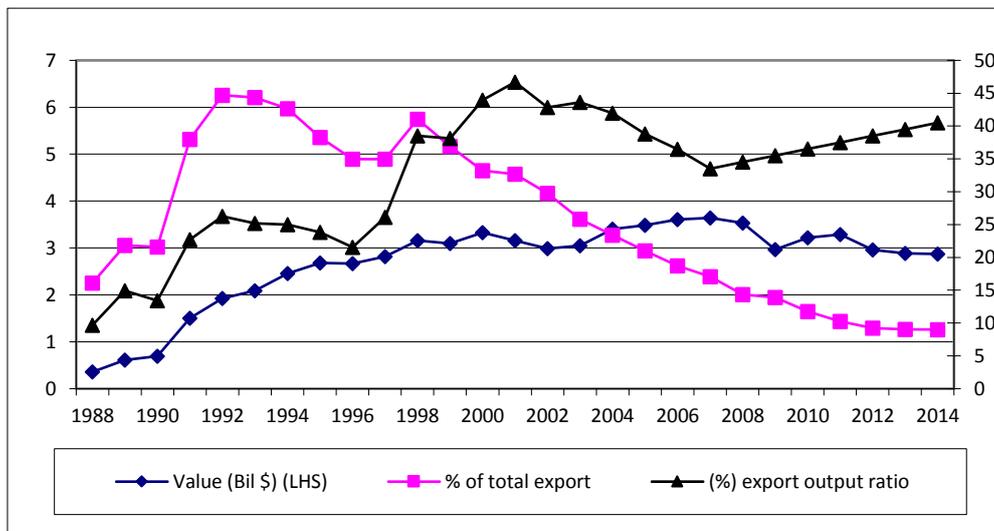
Source: Compiled from the survey in this study.

4. The Thai Garment Industry: A First Look

Clothing was the foremost manufacturing export product of Thailand from the late 1980s to the early 1990s (Figure 5.1). The surge in exports began during the mid-1980s. The annual value of clothing exports soared from \$419 million during the first half of the 1980s to almost \$2 billion in the second half. Clothing accounted for 5% of total exports in the early 1980s and rose to 12% during 1987–1993. Its share of total manufactured exports exhibited a similar upward trend. In 1996, Thai clothing exports experienced a sharp drop to \$3.0 billion from \$4.8 billion in 1995. This was due to continuous overvaluation of the real exchange rate between

1988 and 1996 (Jongwanich, 2008). Thereafter, the export value gradually recovered to reach a peak of \$3.6 billion in 2007. During 2008–2014, the value of Thai clothing exports trended downward from \$3.5 billion to \$2.9 billion. This is due to several factors, including the global financial crisis and labour shortages. The share of total manufacturing exports declined markedly because of the slower growth rate of clothing exports compared to exports of electronics and electrical appliances and vehicles.

Figure 5.1: Thai Clothing Exports, 1970–2014



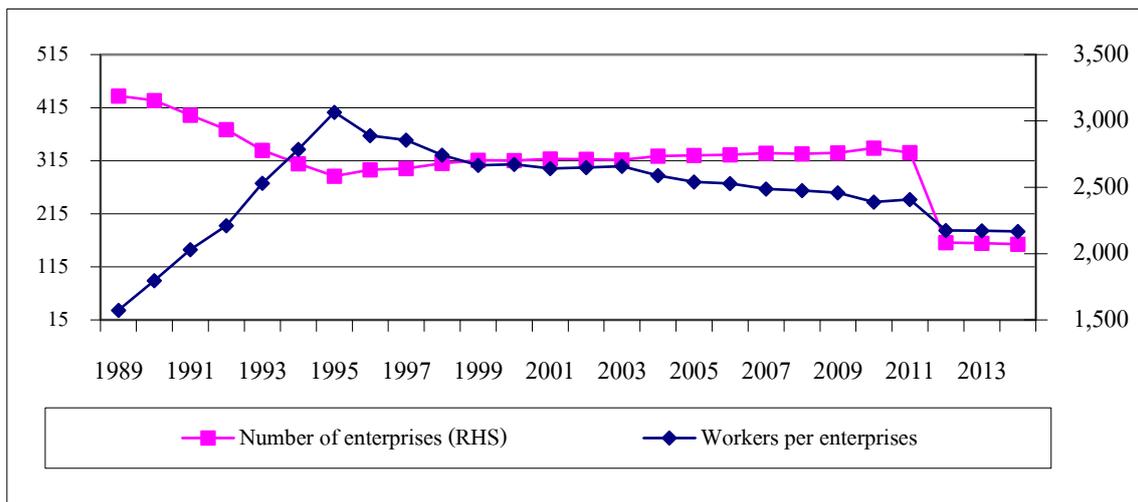
Note: clothing includes HS 6101, 6102, 6103, 6104, 6105, 6106, 6107, 6108, 6109, 6110, 6111, 6112, 6113, 6114, 6115, 6116, 6117, 6201, 6202, 6203, 6204, 6205, 6206, 6207, 6208, 6209, 6210, 6211 and 6212 product codes.

Source: Author’s compilation from the UN Comtrade Database.

The clothing industry is labour-intensive and the barriers to entry are relatively low compared to some other industries. In addition, it is one of the most highly protected industries in the Thai manufacturing sector. Hence, at the early stage of industrialisation in Thailand, many firms entered the garment industry, a large number of which were small and medium-sized enterprises. The number of enterprises increased significantly during the export boom, from

1,574 in 1989 to 3,066 in 1995. The increasing number of enterprises was associated with a decline in average employment per enterprise from nearly 450 workers in 1989 to 300 workers by 1996, suggesting the new entrants were relatively small firms (Figure 5.2).

Figure 5.2: Number of Enterprises, and Workers per Enterprise, 1989–2014



Source: Thai Textile Development Institute.

With the limited size of the domestic market, firms tended to compete. This caused domestic prices to fall and made clothing tariffs unlikely to be binding. In the meantime, wage rates continued to rise because of the countrywide economic boom, but the international competitiveness of the Thai clothing industry was eroded. The Uruguay Round of the General Agreement on Tariffs and Trade concluded with a clear signal that the global trade in clothing was underway and subject to almost the same rules as other manufactured goods in the World Trade Organization's system. The enhanced competition, wage rate rises, and globalisation of the industry all became major push factors in the structural adjustment process. Since 1995, the number of clothing manufacturing firms has been dropping gradually. During 1996–2011, an average of 40 firms exited the clothing industry each year. The floods of 2011 – the worst

Thailand had experienced in a century – accelerated the adjustment process, with the number of enterprises dropping sharply by 234 from 2,409 in 2011 to 2,175 in 2012. Thereafter, the number of firms remained roughly constant.

The garment industry played an important role in absorbing labour into the manufacturing sector until 2011. The number of workers increased considerably from 688,000 in 1989 to 862,000 in 1996, representing 22.4% of total employment in the manufacturing sector during that period.⁶ Despite experiencing steady export growth, the industry's employment level remained at about 800,000 workers during 1997–2011, with a slight downward trend.

The severe flooding in 2011 adversely affected factory operations in many areas including the north, central, and greater Bangkok regions. The closure of many garment firms sharply reduced the number of workers in the industry to 350,000 by 2012. Hence, the relative importance of the garment industry declined sharply from about 15% of total manufacturing employment before 2011 to 5% in 2012–2014. Interestingly, the scale of employment contraction in the garment industry was larger than that of enterprise numbers. By 2012–2014, the number of employees per enterprise had dropped sharply to just half that seen in 2011. Given that the figures include only Thai workers, this suggests an increasing role of foreign workers entering the garment industry.

5. Results

Since 2010, the trend and pattern of firms employing foreign workers have changed noticeably. The overall perception from the survey is that employing foreign workers has become the general practice for garment firms in Thailand. Our survey found that firms of every size employed foreign workers. Of the 25 firms studied, 16 (64%) employed foreign

⁶ Note that the reported figure includes only native workers.

workers, all of them from Myanmar. Three of the eight small firms sampled (38%) employed foreign workers, as did six of eight medium-sized enterprises (75%) and seven of nine large firms (78%) (Table 5.5).

Table 5.5: Summary of the Interviewed Firms

Characteristics	Small	Medium	Large	All
Total	8	8	9	25
Exports (number of observations)	5	6	8	19
(% of total sales)	20	55	79	52
Has more than one factory in Thailand	0	2	7	9
Has investment abroad	0	0	7	7
Employs foreign workers	3	6	7	16
Performs product design	5	4	3	12
Can procure inputs directly	8	7	8	23
Has own brand	5	3	2	10

Note: Small = firm with less than 100 workers; medium = firm with between 100–1,000 workers; and large = firms with more than 1,000 workers.

Source: Compiled from the survey in this study.

5.1 Who employs unskilled foreign workers?

Firms that employ foreign workers tend to be medium-sized or large export-oriented firms that have more than one factory. Many of them have established affiliates abroad. On average, such firms employ 2,741 foreign workers. By comparison, firms that do not employ foreign workers have an average of only 874 workers. The (unweighted) average export output ratio of these firms is 71%, whereas the corresponding figure for all firms is 52%. The output-weighted average ratio for the former is close to 100%.

In contrast, Kohpaiboon, Kulthanavit, and Jongwanich (2012) found that medium-sized firms are more likely to employ foreign workers.⁷ Changes in the labour market since 2010, including a more severe labour shortage in Thailand, mean this is no longer true. Interviews

⁷ The interview period was November 2009–February 2010.

with firms' owners by Kohpaiboon, Kulthanavit, and Jongwanich in 2010–2012, and by this study, show that the tendency to hire foreign labour is largely driven by the tighter labour market. The labour shortage is more acute for traditional labour-intensive industries, such as garment manufacturing, because jobs in such industries are often considered 3D jobs by native youths. This argument is consistent with our survey, which found that native workers are generally older than foreign workers. It also accords with the main findings of Chawanote, Phumma, and Fakthong (2015), who directly surveyed workers about their job preference. The global commodity price boom during 2006–2010 exacerbated the problem (Powell, 2015). The prices of several commodities reached century-high levels, and as Thailand is one of the major producers and exporters of commodities such as rice and natural rubber, this enticed many factory workers in the greater Bangkok area to return to their hometown and start their own plantations. As garment factory workers left their jobs, some retiring early, the firms experienced severe labour shortages.

Two factors added pressure to this adjustment. The first was the B300 minimum wage policy introduced by Prime Minister Yingluck (2013–2015). While the introduction of a minimum wage could worsen the problem, many firms surveyed argued that it was the tip of the iceberg. The second and more decisive factor was the severe flooding in 2011 that affected factories in the greater Bangkok area. Amidst the firms' consolidation process, many garment factories closed and the workers left, many returning to the provinces to establish their own plantations, rather than work in another garment factory. The statistics on the number of workers and firms in the garment industry during 2011–2012 reflect this pattern.

5.2 Importing foreign workers versus other alternatives

The shrinking pool of labour for the garment industry forced all firms, regardless of their size, to adjust, by selecting from the four options discussed (productivity improvement, labour

importing, deepening of capital, and exporting of capital). Each option incurs different costs and affects firms differently, and therefore firms react differently.

Contrary to what many believe, our interviews suggested that employing foreign workers is not the first option that firms took. All firms agreed in the interviews that they opted to employ foreign workers to keep their operations running smoothly, although this option incurs costs and uncertainty. Interestingly, firms employing foreign workers also used the other options among the four to cope with labour shortages, indicating that they are not mutually exclusive and firms can use any or all of them to maintain performance.

Currently, capital deepening is still not feasible for garment manufacturing. Nonetheless, technological advances in robotics and information technology are making capital deepening by the garment industry more viable, even though this not yet evident in the developing countries (Ford, 2015; Clifford, 2013; MIT News, 2016). This is consistent with our survey findings that some firms pay full attention to production line automation.

The need for productivity improvement is widely recognised and upgrading has become routine because of increasing global competition, regardless the labour supply situation. Our survey shows that some enterprises have achieved substantial productivity improvements. Of 25 firms, 14 stated they were confident about productivity improvement. Firms successfully experiencing productivity improvements tend to be larger (Table 5.6). Few small and medium-sized enterprises experienced productivity improvement, and many medium-sized firms do not even measure this attribute. They have not introduced the modern management techniques that are critical to improving productivity, nor have they recognised the importance of long-term productivity improvement. It is therefore very difficult to measure the productivity performance of small and medium-sized enterprises.

Table 5.6: Changes in Labour Productivity at the Firms Interviewed

Change	Small	Medium	Large
Increased	3	2	9
Decrease	1	1	0
Unchanged	1	0	0
Unknown	3	5	0

Source: Compiled from the survey in this study.

The survey asked a series of questions related to productivity improvement, such as changes in the defect rate, the increase in product variety, changes in lead time, changes in unit price, authority to source inputs (and fabric in particular), and creating original designs, as a robust check on whether they had experienced productivity improvement. As revealed in Table 5.7, the main findings are consistent with the earlier responses on productivity. The larger enterprises had improved their productivity. As seen below, successful productivity improvement is a key factor in the ability of firms to compete for workers, including foreign ones.

Table 5.7: Productivity Improvement Activities

Indicator	Small firms		Medium-sized firms		Large firms	
	No.	No reply	No.	No reply	No.	No reply
Average Defect Rate	5%–10%	4*	0	7*	<1%	0
Product variety	Hard to find the appropriate answers as it takes place in several ways					
Decrease in lead time	2	1 **	0	4 **	6	0
Increase in unit price	2	1 **	1	7	8	0

Note: * Not measured systematically; ** Not sure,

Source: Compiled from the survey in this study.

Some indicators of productivity improvement, such as authority to source inputs, changes in lead time, and increased product variety, have become invalid because they became general practice after the abolition of export quotas in 2004. Buyers, or customers, focus on their core

competency, and outsource other tasks to suppliers, including the sourcing of qualified inputs. This began with export-oriented firms and has since been adopted increasingly by domestic-oriented firms that operate a production network of locally owned brands, such as Jaspal and Flynow, as well as multinational wholesalers, such as Tesco. Therefore, such indicators no longer only measure a firm's performance, they have become prerequisites for firms to remain in business.

The last option is exporting capital. Clearly, this is more viable for larger enterprises, as it incurs huge fixed and sunk costs during the initial years of operation. As of 2014, 20–29 Thai garment firms had invested in neighbouring countries. Viet Nam is the largest host country for direct outward investment by Thai garment firms, followed by Cambodia and Myanmar (Daily News, 2014).

In line with their vision of the garment industry, eight firms surveyed had expanded their production capacity by setting up factories in provinces outside greater Bangkok on the expectation of labour availability in those areas. It seemed inevitable that garment firms, especially those located in greater Bangkok, would experience a labour shortage because of the ageing population and/or the local workers' aversion to 3D jobs. Hence, these firms took the first-mover advantage to secure production capacity by setting up factories in other provinces to attract rural workers.

Nonetheless, establishing factories in other provinces is not a perfect substitute for investment abroad, as these firms also have factories abroad. Firms with additional factories in rural areas are more likely to invest abroad to access adequate labour resources and gain preferential market access in the main export destinations that receive products made abroad. Two preferential market access schemes mentioned in the survey are the Generalised System of Preferences granted to low-income countries by major developed countries, and the

preferential tariffs offered in free trade agreements that the host countries sign with the major export destinations.

Overall, the survey results suggest that employing foreign workers does not preclude the use of the other two available options – capital deepening and exporting capital. Rather, the four options are tools that firms can use in different combinations, according to their business constraints and goals, to ensure international competitiveness.

5.3 Productivity of foreign workers and the extent to which firms rely on them

Among the firms employing foreign workers, the extent to which they rely on such workers varies. In some firms, foreign workers account for more than half the workforce, whereas other firms employ on fewer foreign workers. This largely depends on their performance. Arguably, other factors play a role (e.g. implementing capital deepening, non-economic concerns regarding foreign workers, and speed of wage convergence in the region), and these vary from firm to firm sampled.

As Kohpaiboon, Kulthanavit, and Jongwanich (2012) found, before 2010, larger firms were in a better position to attract native workers because successful upgrading meant they could offer higher wages and better working conditions. Hence, it was the medium-sized firms that employed the foreign workers, who were less productive than native workers but willing to accept lower wages.

As argued earlier, the labour market in Thailand is changing. The country's five leading garment exporters expressed a need to hire foreign workers, at least on a temporary basis (Kohpaiboon and Kuthanavit, 2011).⁸ The wage difference is no longer large, as remuneration

⁸ While the study's focus is on firms' adjustment in the post-Multi Fibre Arrangement era, the issue of migration was also examined during the interviews. An additional 20 firms were interviewed during August–November 2010.

is mostly driven by the higher cost of living in Thailand, and in Bangkok in particular, as well as the tighter labour market.⁹ In addition, all the sampled firms agreed that foreign workers perform relatively well after few weeks of training, and they tend to work harder than native ones, especially Thai youths. All garment firms, regardless of size, face a severe labour shortage. Few new native workers are willing to work in a garment factory and most of the remaining workers have been with their firm for years, are relatively old, and are unwilling to change jobs due to family constraints. The survey of foreign and native workers supports this argument (Tables 8 and 9).

Table 5.8: Work Perceptions of Foreign Workers

Item	Average	Maximum	Minimum	SD	Observations
Pride with the current job	1.73	5	1	1.0	119
Loyalty to the current job	1.87	4	1	0.9	119
Attachment to the current job	1.94	4	1	1.0	119
Plan to quit the job	4.28	5	2	0.7	99
Difficulty to find a new job in Thailand	3.15	5	1	1.0	119
Possible to change manager	1.39	3	1	0.7	119
Return home	1.64	3	1	0.6	119
When to return home	4.53	8	1	2.5	47
Try to improve productivity	1.81	5	1	1.1	119
Try to work more than expected by the manager	2.25	5	1	1.3	119
Suggest ideas to improve productivity	2.69	5	1	1.4	117
Want to develop job skills to reduce defects	1.85	5	1	1.0	119
Want to develop job skills for more difficult jobs	1.96	5	1	1.3	119
Want to develop job skills for more product variety	2.74	5	1	1.6	118
Communication	1.93	3	1	0.6	90
Difficulty to understand Thai supervisors	3.98	5	1	1.2	96
Mistakes due to communication error	3.88	5	2	0.9	99
Work with Thai colleagues	1.04	2	1	0.2	99
Difficulty to work with Thai colleagues	3.67	5	1	1.4	99

SD = standard deviation.

Source: Compiled from the survey in this study.

⁹ To a large extent, this is equivalent to '*cliff*' in the original Lewis model.

Table 5.9: Work Perceptions of Thai Workers

Item	Average	Maximum	Minimum	SD
Fairness of wage received	2.9	6	1	0.9
Work harder to get better payment	2.3	5	1	1.4
Fairness of performance assessment	2.5	6	1	1.6
Fairness of job promotion	2	5	1	1.3
Fair treatment between Thai and foreign workers	2	5	1	1.1
Fair payment between Thai and foreign workers	2.9	3	1	0.6
Satisfy with foreign co-workers	2	4	1	0.7
Closeness to foreign workers	2.3	5	1	1.5
Plan to quit job	3.3	5	1	1.1
Why to quit the job	2.5	5	1	1.0
Difficult to find a new job	2.8	5	1	1.2
Difficulty to work with foreign workers	2.6	5	1	1.3

SD = standard deviation.

Note: The sample size is 120 workers.

Source: Compiled from the survey in this study.

Consequently, large firms now compete with medium-sized firms for foreign workers. Given their superior performance, large firms are much more attractive places to work from a foreign worker's viewpoint. For example, better-performing firms tend to run overtime production regularly, which substantially increases workers' total compensation and reduces income uncertainty. This is consistent with the findings of the foreign workers' survey.

Changes in the rules and regulations for employing foreign workers in Thailand been advantageous for large firms. Firms must express their intention to employ foreign workers and must specify the number of workers accordingly. When firms no longer need these workers, they may (i) send the workers home or terminate their contract, or (ii) sign a document confirming their willingness to allow these workers to work elsewhere. Firms have a certain amount of bargaining power over foreign workers who want to continue working in Thailand. If they refuse to sign the document, that worker must return home. Arguably, foreign workers face greater risks at smaller firms because the firms' owners can easily abuse power in terminating the contract and in signing a document to allow these workers to work elsewhere.

Hence, the labour shortage faced by medium-sized enterprises became even more severe as these workers began to move.

Among medium-sized enterprises, those that perform relatively well, as measured by payment reliability and regular availability of overtime, are attractive to foreign workers. Competitive medium-sized firms that can maintain or increase their sales volumes can therefore compete for these workers to some extent, whereas firms that struggle to maintain business are less likely to be able to retain their foreign workers. Many enterprises have decided to downsize, and now target specific niche markets according to the number of workers employed. The number of workers employed at one sample firm had decreased from 400 to 100. Downsizing associated with productivity improvement is measured in terms of delivery reliability, the defect rate, and the increase in unit value. Many firms in this category were considering exiting the industry.

Regardless of their performance, medium-sized enterprises are experiencing high worker turnover. This affects their long-term productivity negatively, as high turnover rates interrupt the learning process, which is crucial for long-term productivity improvement.

The business performance of large enterprises tends to be better than that of other firms (Table 5.10). In the previous 5 years, large firms are likely to have experienced an increase in employment, sales revenue, labour productivity, and export earnings. This is associated with the increasing role of foreign workers within the total workforce.

Table 5.10: Business Performance in the Previous 5 Years by the Firms Interviewed

Performance	Small	Medium	Large	Total
Increases employment	2	0	6	8
Increased foreign workers	2	3	6	11
Increased sales revenue	2	3	7	12
Increased labour productivity	3	2	9	14
Increased exports	1	2	7	10

Source: Compiled from the survey in this study.

Nonetheless, some large enterprises decided not to rely too heavily on foreign workers. Two of nine large enterprises in the survey had decided not to employ foreign workers, and one large enterprise had just started employing foreign workers, but they made up less than 2% of the total employee numbers. In another large enterprise, foreign workers accounted for nearly 50% of employees.

The reasons why some companies chose not to rely on foreign workers varied. Some firms were concerned about the negative side effects on society overall, so they chose to use the capital-exporting and capital-deepening options. Some others have established production bases in the provinces, and were therefore less affected by the labour shortage. Interestingly, some firms considered that importing foreign workers was an unsustainable solution compared to installing automated systems in the production line. These firms were in the process of installing such systems.

5.4 Employing foreign workers and upgrading efforts

There is no evidence that employing foreign workers retards the upgrading efforts of firms. In this study, we follow the upgrading terminology used widely in the literature. There are three types: function-based, product-based, and process-based upgrading (Gereffi and Memedovic, 2003; Gereffi and Tam, 1998; Gibbon, 2003; Palpacuer, Gibbon, and Thomsen, 2005).

Function-based upgrading refers to the ability to provide a broader range of services beyond basic garment assembly, including product design, fabric sourcing, inventory management, and management of production sourcing. Product-based upgrading refers to the ability to manufacture higher-quality products for higher-priced market segments. Process-based upgrading involves the reduction of inventory and waste through the implementation of modern management techniques, such as the lean production system.

As observed by Kohpaiboon, Kulthanavit, and Jongwanich (2012), functional and product upgrading decisions are driven largely by customer demand. These factors become the requirements to remain in business. As real wages in Thailand continue to increase and suppliers from labour-abundant countries become more numerous, it is unlikely that Thai enterprises can simply undertake only the basic manufacturing processes of cutting, sewing, and packing. The orders placed with Thai enterprises have become more complex, and the workers handling them must be more skilled. As a result, handling such orders often involves installing new machinery.

The decision to perform process-based upgrading, on the other hand, depends on and must be driven by the business vision of the firm's owner. As process-based upgrading incurs sunk costs, it takes time for firms to realise the benefits, and the upgrading process must be carried out continuously, as revealed in our survey. This is different from function- and product-based upgrading, from which companies may benefit immediately. The performance of firms that are fully committed to this type of upgrading is noticeably superior to those that have paid less attention to it. Process-based upgrading plays a more pivotal role in productivity improvement and long-term competitiveness than function- and product-based upgrading. This key finding confirms that of Kohpaiboon, Kulthanavit, and Jongwanich (2012).

The chance to access unskilled foreign workers at lower wages would not significantly deter the decision to undertake process-based upgrading. The decision to employ foreign workers

depends on other factors, such as policy uncertainty and the management problems associated with employing foreign workers (such as communication and worker cohesion), compared with the benefits of maintaining the production capacity.

6. Conclusions and Policy Implications

This chapter re-examined the relationship between productivity and employing unskilled foreign workers by surveying Thai manufacturers during October–December 2015. The key reason for this re-examination is the rapid change in the economic fundamentals and the labour market in Thailand. Three separate questionnaires were employed, for firms, local workers, and foreign workers.

The key finding is that more medium-sized and large clothing manufacturing firms in Thailand are employing foreign workers. Medium-sized and large enterprises employ foreign workers to overcome the tighter labour market conditions. There is no evidence of a causal relationship to indicate that employing foreign workers retards firms' productivity improvement. Rather, we found the opposite. It is the well-performing firms that are in a better position to attract foreign workers and maintain production capacity. Struggling firms are less likely to be able to compete for, and therefore benefit from, foreign workers to enhance their capacity.

Three policy inferences can be drawn from this paper. First, there are potential mutual benefits for the countries in the region. The labour-importing countries can minimise the costs incurred during the structural adjustment process by importing labour, and the labour-exporting countries can benefit from accumulated skills in industries such as clothing when their workers return home. The movement of unskilled workers between countries is likely to continue in the countries of Indochina that share common land borders, because job opportunities differ considerably. The governance of unskilled labour mobility across these countries has only recently been incorporated into the multilateral framework. Clearly, there is

scope for international organisations to realise the potential of inter-country labour mobility more widely.

Second, using one-size-fits-all policy measures to manage the flow of unskilled foreign workers may be risky because of the significant role of industry-specific factors. For export-oriented industries such as clothing, where global trade remains under the influence of multinational firms, the insight into firms' behaviour revealed in this paper suggests that benefits from employing unskilled foreign workers are greater if the labour shortage is largely driven by native workers' preferences.

Third, attention towards policies governing the flow of foreign workers should also consider the fact that Thailand has long common borders with labour-exporting countries (Myanmar, Lao PDR, and Cambodia). Prohibition seems to be less likely to succeed, so the policy stance is shifting towards managing the flows. To do so, rules and regulations must be straightforward so that they can be implemented effectively.

References

- Abernathy, F.H., A. Volpe, and D. Weil (2005), 'The Future of the Apparel and Textile Industries: Prospects and Choices for Public and Private Actors'. Boston: Harvard Center for Textile and Apparel Research.
- Bair, J. and G. Gereffi (2003), 'Upgrading, Uneven Development, and Jobs in the North American Apparel Industry', *Global Networks*, 3, pp.143–69.
- Berman, E. and S. Machin (2004), 'Globalization, Skill-Biased Technological Change and Labour Demand', in E. Lee and M. Vivarelli (eds.), *Globalization, Employment and Poverty Reduction*. Geneva: International Labour Organization.

- Bhagwati, J. (1973), 'The Theory of Immiserizing Growth: Further Applications', in M.B. Connolly and A.K. Swoboda (eds.), *International Trade and Money*. Toronto: University of Toronto Press.
- Brecher, R.A. and C.F. Diaz-Alejandro (1977), 'Tariffs, Foreign Capital and Immiserizing Growth', *Journal of International Economics*, 7(4), pp.317–22.
- Brecher, R.A. and R. Findlay (1983), 'Tariff, Foreign Capital and National Welfare with Sector-Specific Factors', *Journal of International Economics*, 14(3), pp.277–88.
- Caves, R.E. (2007), *Multinational Enterprise and Economic Analysis* (3rd edition). Cambridge: Cambridge University Press.
- Chawanote, C., N. Phumma, and T. Fakthong (2015), Labor Shortage in Thai Manufacturing: Demand vs. Supply Side Factors, Report submitted for Thailand Research Fund (in Thai).
- Clifford, S. (2013), 'US Textile Plants Return, with Floors Largely Empty of People', *New York Times*, September 12, www.nytimes.com/2013/09/20/business/us-textile-factories-return.html (accessed 15 December 2015).
- Daily News (2014), Promote Thai Garments in ASEAN market and Factory Relocation, http://www.asean thai.net/ewt_news.php?nid=2178&filename=index (accessed 15 December 2015).
- Dunning, J.H. (1993), *Multinational Enterprises and the Global Economy*. Massachusetts: Addison-Wesley Publishers.
- Ford, M. (2015), *The Rise of the Robots*. London: Oneworld Publication.

- Gereffi, G. (1995), 'Global Production Systems and Third World Development', in B. Stallings (ed.), *Global Change, Regional Response: The New International Context of Development*. New York: Cambridge University Press.
- Gereffi, G. (1999), 'International Trade and Industrial Upgrading in the Apparel Commodity Chain', *Journal of International Economics*, 48(10), pp.37–70.
- Gereffi, G. (2002), 'The International Competitiveness of Asian Economies in the Apparel Commodity Chain', *ERD Working Paper Series*, No. 5, Manila: Asian Development Bank.
- Gereffi, G. and O. Memedovic (2003), *The Global Apparel Value Chain: What Prospects for Upgrading by Developing Countries?* Vienna: UNIDO.
- Gereffi, G. and T. Tam (1998), 'Industrial Upgrading through Organizational Chains: Dynamics of Rents, Learning-by-Doing, and Mobility in the Global Economy', Paper presented at American Sociological Association. San Francisco, <http://www.ids.ca.uk/ids/global/pdfs/gereffi3.pdf> (accessed 15 December 2015).
- Gibbon, P. (2003), 'The Africa Growth and Opportunity Act and the Global Commodity Chain for Clothing', *World Development*, 31(11), pp.1809–27.
- Global Commission on International Migration (GCIM) (2005), *Migration in an Interconnected World: New Directions for Action, Report of the Global Commission on International Migration*. Switzerland: GCIM.
- Humphrey, J. and H. Schmitz (2002), 'How Does Insertion in Global Value Chains Affect Upgrading in Industrial Clusters?' *Regional Studies*, 36(9), pp.1017–27.
- International Labour Organization (ILO) (2006), *ILO Multilateral Framework on Labour Migration: Non-binding Principles and Guidelines for a Rights-based Approach to Labour Migration*. Geneva: ILO.

- Jongwanich, J. (2008), 'Real Exchange Rate Overvaluation and Currency Crisis: Evidence from Thailand', *Applied Economics*, 40(3), pp.373–82.
- Katz, L. and D. Autor (1999), 'Changes in the Wage Structure and Earnings Inequality', in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics*, 3. New York and Oxford: Elsevier.
- Kessing, D.B. (1983), 'Linking Up to Distant Markets: South to North Exports of Manufactured Consumer Goods', *American Economic Review*, 73(2), pp.338–342.
- Kindleberger, C.P. (1967), *Europe's Postwar Growth: The Role of Labour Supply*. Cambridge MS: Harvard University Press.
- Kohpaiboon, A. (2006), *Multinational Enterprises and Industrial Transformation: Evidence from Thailand*. Cheltenham: Edward Elgar.
- Kohpaiboon, A. and P. Kuthanavit (2011), 'Adjustment of Thai Clothing Firms in Quota-Free Era', Policy Report submitted to Office of Health Promotion, Prime Minister Office, Bangkok.
- Kohpaiboon, A., P. Kulthanavit, and J. Jongwanich (2012) 'Structural Adjustment and International Migration: An Analysis of the Thai Clothing Industry', *Oxford Development Studies*, 40 (2), pp.231–260.
- MIT News (2016), 'MIT Improving Human-Robot Collaboration', http://www.robotictrends.com/article/mit_improving_human_robot_collaboration (accessed 15 December 2015).
- Palpacuer, F, P. Gibbon, and L. Thomsen (2005), 'New Challenges for Developing Country Suppliers in Global Clothing Chains: A Comparative European Perspective', *World Development*, 33(3), pp.409–30.

- Powell, Andrew (2015), 'Commodity Prices: Over 100 Years of Booms and Busts', <https://blogs.iadb.org/ideasmatter/2015/05/04/commodity-prices-100-years-booms-busts> (accessed 17 February 2016).
- Rabellotti, R. (1997), *External Economies and Cooperation in Industrial Districts: A Comparison of Italy and Mexico*. London: MacMillan.
- Rhee, Y.W., B. R. Larrison, and G. Pursell (1984), *Korea's Competitive Edge: Managing the Entry into World Markets*. Baltimore: Johns Hopkins University Press.
- Salt, J. (1992), 'The Future of International Labor Migration', *International Migration Review*, 26(4), pp.1077–1111.
- Schmitz, H. and K. Nadvi (1999), 'Clustering and Industrialization: Introduction', *World Development*, 27(9), pp.1503–14.
- World Bank (2006), *Global Economic Prospects 2006: Economic Implications of Remittances and Migration*. Washington, DC: World Bank.