Two Dynamic LDCs: Cambodia and Bangladesh as Garment Exporters

Cambodia's garment industry is closer to international fashion trends and to technology due to the tight links with the Chinese parent firms, whereas Bangladesh's garment industry has broader and firmer base due to the great number local investments.

The development of the garment industry in Cambodia and Bangladesh has been long downplayed, irrespective of the fact that Bangladesh has maintained a steady growth of the industry since the beginning of the 1980s and Cambodia has grown the industry continuously for a decade. In general, critics have suggested that the development of the garment industry solely hinges on a protective trade regime, which is the result of the Multi-Fiber Arrangement (MFA), and that the specialization in production of labor-intensive products industries such as wearing apparel brings about no prospects for further industrialization.

Critics have also suggested that these countries will reach a dead end relative to industrialization and that even if a country could penetrate the international market with a labor-intensive product, price competition would be problematic and there would be no additional sources for technological progress and capacity development. Moreover, critics expected that the MFA phase out, which was completed in January 1, 2005, would fatally damage the garment industry in the two countries.

These expectations have turned out to be wrong. Both Cambodia and Bangladesh expanded 2005 garment exports to the United States by over 20 percent, while declines in garment exports to the EU were minor. Even after liberalization, the garment industry continues to grow rapidly and contribute greatly to economic development and poverty reduction in Cambodia and Bangladesh through employment of underprivileged people, in particular women, and the generation of foreign exchange earnings.

This article reviews features of development of the export-oriented garment industry in the two countries, and studies future prospects of industrialization of the two Least Developed Countries (LDCs) based on the development of the garment industry.

The Garment Industry as a Trailblazer toward Globalization and Industrialization

Looking back at the history of economic development in Asia, the garment industry has played a key role in industrialization not only in the two countries but also in other Asian countries. In particular, Asian Newly Industrializing Economies (NIEs) and original ASEAN member countries had a period during which wearing apparel was, without exception, a main export item. In the 1960s-70s the average wage rate of these economies was low enough for labor-intensive industries to be internationally competitive, and foreign direct investment poured into the export-oriented production sector of these economies. As was true in the 1950s amid the controlled trade regime initiated between Japan and developed countries of that period, the textile and wearing apparel industries led industrialization in these economies. (The agreement in controlled trade of textiles and wearing apparel was renamed as the MFA in 1974.)

These economies developed so fast that the leading role of wearing apparel was overtaken by electrical and electronic machinery in the 1970s-80s. However, the garment industry was certainly a trailblazer for globalization and industrialization in many East Asian economies, and there is no wonder the garment industry is playing the same role in Cambodia and Bangladesh.

A Limited Number of Big Firms in Cambodia

The garment industry in Cambodia and Bangladesh shares interesting similarities beyond high growth rates and dominance in value of exports; there also are critical differences between the two countries. The differences and similarities reflect the historical factors and international environments that have determined the development paths of the industry in the two countries.

Table 1: Changes in Exports of Knit and Woven Garments to the US and EU (%)

US Market			EU Market		
Origin	**2003-04**	**2004-05**	**Origin**	**2003-04**	**2004-05**
All Countries	+06.3	+05.9	All Countries	+15.2	+06.3
China	+23.4	+56.8	China	+25.7	+48.3
India	+10.7	+34.3	India	+16.2	+32.0
Bangladesh	+06.5	+21.2	Turkey	+15.2	+04.7
Cambodia	+15.4	+20.1	Bangladesh	+31.9	-05.1
Mexico	-03.6	-09.0	Romania	+10.9	-06.3
Hong Kong	+03.9	-09.2	Cambodia	+35.3	-08.8

Source: *U.S. Department of Commerce, Bureau of Census and Eurostat*
Note: *Knit and woven garments are defined as commodities with HS codes of 61 and 62*

The first notable difference is that the average scale of garment factories in Cambodia is larger, although there are more total factories in Bangladesh (196 compared to 3,115 in 2003). In other words, a small number of larger firms export garments in Cambodia. The average number of workers in Cambodia's firm is around 900, while the same figure for Bangladesh is approximately 400. The number of factories in Bangladesh is more than fifteen times greater than in Cambodia.

Additionally, in Bangladesh many garment factories are located in the center of business quarters. Frequently, they occupy different floors in buildings where the ground floor is occupied by stores. Even though multinational enterprises have factories in the Export Processing Zones (EPZs) in Dhaka and Chittagong, they are a minority. In Cambodia by contrast, small factories located in downtown areas are not common; most garment factories are located on a huge estate, enclosed by a tall fence, on the outskirts of Phnom Penh. This visible difference in scale seems to be due to a difference in ownership of factories between Cambodia and Bangladesh as shown in the following section.

Foreign Owned Factories in Cambodia

In recent history, export-oriented garment production in Asia has been initiated almost always by multinational enterprises. Korean investors helped Bangladesh start the garment production in the early 1980s. They transferred technological and managerial know-how of the export-oriented garment business to Bengali entrepreneurs. Some argued that technicians and managers from the Korean firms initially formed the main body of local export-oriented garment firms.

Without the Korean investors, Bengali female workers might remain untapped. Before the advent of Korean investors, Bengali female workers had rarely worked outside villages in Bangladesh because of strict rules imposed on women's behavior in the Indian Subcontinent, called Purdah. The export-oriented garment factories were the first employers for Bengali women to grant massive employment opportunities outside villages. By creating a de facto sanctuary, with only a limited number of men, the garment factories succeeded in attracting rural women to towns to work for low wages in factories.

However, there is no longer a significant presence of Korean or other foreigners in Bangladesh. Foreign commitment to the garment industry has declined on a relative basis as the participation of local capital in the industry has increased. Currently, industrial associations for the export-oriented garment production are dominated by local entrepreneurs.

In contrast to Bangladesh, Chinese investors led the export-oriented garment business in Cambodia. Two field surveys by the author's teams, one conducted in Bangladesh in 2001 and the other in Cambodia in 2003, revealed that most Cambodian garment factories are 100 percent owned by foreigners, while most Bangladeshi factories are owned by local capitalists.

As for the management of Cambodian firms, the surveys developed information on the "most influential decision maker," identifying significant differences. Only 7.9 percent of the surveyed firms have Cambodian top managers, whereas the firms have 76.8 percent ethnic Chinese top managers, who have come from mainland China, Taiwan, Hong Kong, and neighboring Southeast Asian countries. One reason for the high percentage of ethnic Chinese top managers in Cambodia seems that the country is an easier place for Chinese to stay and to do business because of a large Chinese community. In contrast to Cambodia, Chinese schools, Chinese newspapers and other Chinese utensils are rarely available in Bangladesh. Further, only a limited number of people speak Chinese fluently in Bangladesh.

Favorable Labor Conditions and Relatively High Wage Rate in Cambodia

Another factor influencing the garment industry in Cambodia is the bilateral agreement with the United States, which was concluded in 1999. Under its conditions, the United States restricts textile and garment imports from Cambodia, imposing ceilings by quantity of item; this is parallel to the actions taken by the United States against other World Trade Organization (WTO) member countries under the Agreement on Textiles and Clothing (ATC) of WTO. The ceilings were called "quotas".

The bilateral agreement between Cambodia and the United States stipulated that granting quotas

Table 2: Number of Firms and Workers in the Garment Industry in Cambodia and Bangladesh in 2003

	Cambodia	Bangladesh
Number of firms	196	3,115
Number of workers: Mean	903	399
Number of workers: Median	559	313
Number of workers: Maximum	9,500	7,600
Number of workers: Minimum	18	18
Number of workers: Standard Deviation	1,098	373

Source: *Membership lists of GMAC and the Bangladesh Garment Manufacturers and Exporters Association* on garment imports to Cambodian firms was conditional upon compliance by Cambodia with the decent labor standard in its garment factories. Even though the agreement expired when Cambodia joined the WTO in October 2004, Cambodia has retained the high labor standard and minimum wage conditions in order to maintain a good reputation as a model country of garment production. Due to its actions, Cambodia has successfully evaded "sweatshop" criticisms generally leveled by labor unions and consumer organizations in developed countries against factories engaged in labor-intensive production with low labor conditions and wage payments. As a result, the entry-level workers into the garment industry in Cambodia earn as much as US$45 per month, which is well above the international poverty line (US$30 per month) and local poverty lines, when calculated by taking into account of the cost of living in Cambodia.

Although the per capita income of Bangladesh (US$440 in 2004) is a little greater than that of Cambodia (US$320), entry-level workers in Bangladesh earn as low as US$ 20 per month, according to the survey. It is notable that the earnings still exceed the national poverty line in Bangladesh and are greater than some of the alternative employment opportunities available for garment workers. In other words, the employment opportunity in Bangladesh provides a way for poor people living in rural areas to improve their livelihoods and to live above the poverty line.

The high wage and labor standards in Cambodia are maintained by frequent inspection visits undertaken by the International Labour Organization (ILO). As shown in Table 2, the number of firms is smaller in Cambodia, which makes it easier for the ILO to monitor labor conditions in garment factories. In Bangladesh, by contrast, the number of firms is so great that the frequency of inspections per firm is low. As a result, it is not easy to enforce the labor standard strictly at each firm.

As a result of the expiration of the bilateral agreement between the United States and Cambodia, the United States does not continue to finance inspections by the ILO in Cambodia. Alternative financing is being sought by involving buyers of garments made in Cambodia, namely the Gap, Adidas, Nike, Wallmart, Reebok, Levis, Children's Place, Walt Disney, PVH, Li & Fung, and H&M. The World Bank is also helping finance inspections during the transition period. In addition to inspections, there has been constructive discussion on raising the minimum wage during the middle of 2006. Thus, the high labor standards and minimum wage policy will be maintained as a trademark of garments made in Cambodia for a time.

Low Entry Barriers for Workers in Level of Education in Cambodia and Bangladesh

There are important similarities in the garment industry between Cambodia and Bangladesh, which are closely related to its impacts on poverty reduction. First, a high level of education is not required for operators of sewing machines in either country. More than 80 percent of managers of firms interviewed through the field survey in Cambodia stated that the average educational attainment of their operators was the primary level, and the same percentage of managers indicated that they did not set a level-of-education requirement for operators. These results imply that ordinary women without a high level of education can obtain a job in the garment industry in Cambodia. Typically, they learn how to use sewing machines in a neighborhood near a factory and then get a job in a garment factory.

The survey of managers of firms in Bangladesh also reveals that the average educational level of operators is as low as primary education. In fact, many studies on garment workers confirmed that a number of illiterate women who have not been to school, obtain jobs in the garment factories. Workers in Bangladesh need not know how to use sewing machines in advance because during the time they work as helpers they learn by watching how incumbent operators use the machines. According to the survey, after 8.3 months on average a helper is promoted as an operator. The median time is six months.

Since the level of education is one of the criteria that is most widely used to judge workers' capability, and since it is hard for low-income people to attain high levels of education, the fact that the garment industry in both countries does not require a high level of education of workers implies that

Table 3: Source of Capital of Garment Factories

	Cambodia	Bangladesh
Survey year	2003	2001
100% owned by foreigner	125	2
Joint venture with local investors	7	2
Purely local	14	224
Others or no answer	18	4
All sample firms	164	232

Source: *T. Yamagata, "The Garment Industry in Cambodia," Discussion Paper No. 62, Chiba, Japan: Institute of Developing Economies, 2006 (URL:http://www.ide.go.jp/English/Publish/Dp/Abstract/062.html); Z. Bakht; M. Salimullah; T. Yamagata; and M. Yunus, "Competitiveness of a Labor-Intensive Industry in a Least Developed Country: A Case of the Knitwear Industry in Bangladesh," mimeo., 2006 (URL: http://taweb.aichi-u.ac.jp/kurihara/jsie11cb.pdf)* there are low entry barriers for ordinary people to jobs in the industry. Thus, the garment industry provides feasible and attractive opportunities for them to earn incomes greater than what they can expect from rural agriculture.

High Average Profitability in Cambodia and Bangladesh

So far, how effectively the garment industry contributes to poverty reduction in the two countries has been discussed. However, unless the industry is internationally competitive, the impacts of development of the industry on poverty reduction would be short-lived. In other words, for the positive effects of the industry on poverty reduction to continue, the industry must be competitive and profitable.

In fact, the estimated profitability of the export-oriented garment industry in the two countries is not low (As for the data sources, see the papers appearing at the bottom of Table 3). Figure 1 displays the distribution of garment factories in Cambodia by the profits-to-sales ratio estimated with the data collected by the author's team from August to October 2003. It is apparent that a majority of surveyed firms yield positive profits. The average profits-to-sales ratio is as high as 30.2 percent.

The average profits-to-sales ratio for surveyed knitwear factories (only those with positive value added) in Bangladesh is as high as 8.7 percent, while the median is 15.9 percent according to the data collected from July to October 2001. Since the garment production necessitates only a small amount of machinery, by nature the profits-to-capital ratio is very high. The average ratio for the knitwear industry in Bangladesh reaches 157 percent when "capital" is defined as the real discounted value of machinery. This figure implies that the typical knitwear factory in Bangladesh can purchase 1.57 times the amount of machinery currently installed with its annual profits. The firm can replace all the machines it owns with the annual profits. Thus, the high profitability endorsed a rapid growth of the industry in both Cambodia and Bangladesh.

It is notable, however, that the variation in the profits-to-sales ratio is very high in both countries. The standard deviation of Cambodia is as great as 35.6 percent. The considerable number of firms recording losses, as well as those with remarkably high profits-to-sales ratio, as displayed in Figure 1, testify to the highly diverse performances among firms. Thus, the difference in the ratio between the two countries, i.e. 30.2 percent and 8.7 percent, need not be statistically significant.

Not So Favorable Investment Climate in Cambodia and Bangladesh

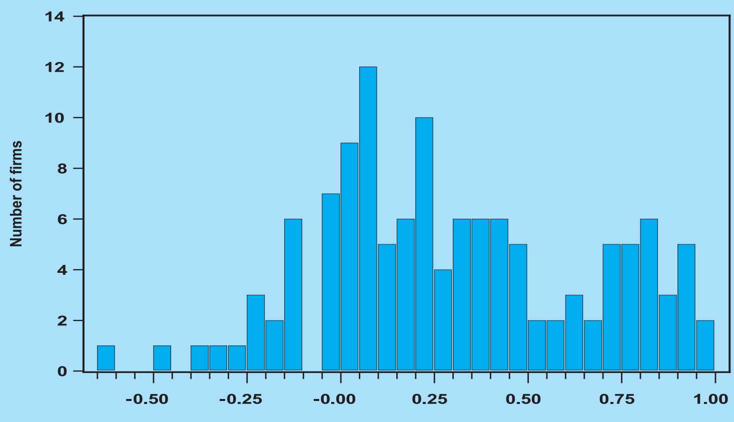
Such high profitability might be surprising since it was believed that extra costs due to unfavorable physical and institutional infrastructure are critical in the two countries. For example, the distance between the capital cities to seaports is great and facilities at seaports are unsatisfactory in both countries. Further, the supply of electricity is insufficient and unreliable, and all aspects of "governance" are considered weak.

As for governance, a German non-profit organization, Transparency International, publishes the Corruption Perceptions Index (CPI) of countries every year. Bangladesh, which appeared in the ratings for the first time in 2001, has been rated the worst country from 2001 until now. Cambodia, which appeared in the table of CPI in 2005 for the first time, is among countries that have attained low scores.

It should be noted that government interventions do not seem to be helpful in promoting the export-oriented garment industry in Cambodia and Bangladesh, which is in striking contrast to the industrial development in Japan and some Asian NIEs in the 1950s-70s.

In Cambodia and Bangladesh, the export-oriented garment production was not regarded as a strategic industry at the beginning of the development of the industry. The development was rather spontaneous, and was led by foreign investors who escaped from the quantitative restrictions to export garments imposed on their countries of origin by North America and Europe. Initially, investors chose Cambodia and Bangladesh as production sites only because of cheap labor; however, some policy instruments such as tariff exemption or draw back on importation of yarn and fabrics, tariff reduction/exemption on importation of machinery for the industry, and preferential loan are now applied to the export-oriented garment industry in the two countries. Such policies started being applied in the middle of

Figure 1: Distribution of Firms by Profits-to-Sales Ratio in Cambodia



Source: *T. Yamagata, "The Garment Industry in Cambodia," Discussion Paper No. 62, Chiba, Japan: Institute of Developing Economies, 2006 (URL: http://www.ide.go.jp/English/Publish/Dp/Abstract/062.html)* the development of the industry, and the magnitudes of preference are just like those applied to other countries. Thus, the promotion policies of the governments of the two countries are as standard as other developing countries at most.

Challenges Ahead

The survival of Cambodia and Bangladesh in the international garment markets after the MFA phase out, surprised people who expected a collapse of the two countries in garment exports and worried about adverse consequences to their economies. For example, China accepted restrictions on its garment exports to the United States and the EU, which will be effective until 2008 and 2007, respectively. As a result, the garment industry in Cambodia and Bangladesh appears to have gained relief, and the competitiveness of the industry might be maintained for a while.

However, the high dependence on wearing apparel in foreign exchange earnings is not ideal. The base of the garment industry is very narrow in Cambodia because the number of firms is relatively small and most of them are foreign owned. As a result, there could be risks checking the growth of the garment industry ahead, and therefore, diversification with respect to sources of foreign exchange earnings and deepening industrial structure are necessary.

How can the industrial and export structures be diversified and strengthened? Again, knowing what neighboring countries did for the same purpose in the past is meaningful, because once they also suffered from the same problem. The dependence on a limited number of export items is a common problem that developing countries face in the early phase of industrialization. How did the Asian NIEs and the original ASEAN member countries address the problem?

Most of the economies were once dependent upon primary products; for example, petroleum for Indonesia and Malaysia, and rice for Thailand, and their first manufactured goods for export were textiles and wearing apparel. The next industry advanced by the East Asian economies was another labor-intensive industry, the assembling of electrical and electronic machinery such as refrigerators, televisions, washing machines, and integrated circuits.

Those production processes required cheap and patient manual labor. Those who worked for the textile and apparel industry gradually shifted to the machinery industry in the Asian NIEs and the original ASEAN member countries in the 1970s-80s. This pattern of diversification was "horizontal" in the sense that the diversification was attained by shifting resources from one labor-intensive industry to another labor-intensive industry. Later on, these economies shifted to more capital-intensive and technology-oriented industries as capital and knowledge were accumulated through the second-stage labor-intensive industrialization. Familiarization with machinery, and the internalizing of advanced technology, allowed managers, engineers and workers in the industry to learn state-of-the-art technology even though the parts incorporating the technology were produced abroad.

Some scholars argue that specialization in a labor-intensive production process is simply participating in a race to the bottom and may lead to a dead end for industrialization. Therefore, they suggest low-income countries move to capital-intensive and technology-information oriented industries right away, possibly utilizing backward and forward linkage effects along a value chain. That strategy sounds too hasty for most low-income countries whose capital and knowledge are scarcely accumulated. In contrast, horizontal diversification would appear to be more beneficial for a country experienced in a first-stage labor-intensive industrialization. Cambodia and Bangladesh appear to be at this stage of industrialization.

Concluding Remarks

This article focuses on differences and similarities in the development of the garment industry in Cambodia and Bangladesh. Above all, the most insightful difference is the origins of capital and management. A typical garment factory in Cambodia is more tightly linked with its Chinese parent firms, and it behaves as a subsidiary of the parent firm. Meanwhile in Bangladesh, where the export-oriented garment business was initiated by Korean investors, the garment industry is now controlled by local investors.

There are pros and cons to these two patterns of capital and management. On the one hand, Cambodia's firms are closer to international fashion trends and to technology due to their links to their parent firms, whereas Bangladesh's garment industry has broader and firmer base than its Cambodian counterpart due to the great number of firms and local investment. Foreign-owned firms are more likely to be mobile and subject to relocation, a feature that is accentuated in labor-intensive industries because the value of fixed assets is small in general.

Finally, it should be emphasized that Cambodia and Bangladesh can be a model of development for other low-income countries. The contribution of the export-oriented garment industry to industrial development, foreign exchange earnings, and poverty reduction through employment of poor female workers absolutely deserves admiration. More intensive scrutiny is necessary to consider the application of their pattern of industrialization to other low-income countries, in particular those in sub-Saharan Africa.

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