

Chapter 6

The Garment Industry in Bangladesh

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Abstract

The garment industry in Bangladesh has been expanded almost uninterruptedly since the late 1970s. It survived Multi-Fiber Arrangement (MFA) phase out at the end of 2004, and remains internationally competitive to date. In this chapter, sources of competitiveness of the industry were discussed. There are three potential strengths, i.e. market force, government policy and dynamism inside the industry. Market force, which is represented by low wage of labor, is surely fundamental to the competitiveness. The roles of the government, industrial associations and technology transfer are still contentious issues to be discussed in the final report.

Keywords: Garment industry, Bangladesh

1 Introduction

Everywhere, the industrial sector has been the driver of growth as countries have moved from low- to middle-income status. Bangladesh as a country with a poor land-person ratio is unlikely to prosper through agricultural growth alone. The average productivity of industry is higher than in agriculture. As people move out of agriculture into industry, the sector can provide high-wage employment for large numbers of workers and can raise social productivity by producing high-value goods on a mass scale. Besides, poor countries can also earn valuable foreign exchange by exporting manufactured products and the ensuing foreign exchange can be used to invest in new vintage of machines and technologies so that a rapid move up the technology ladder becomes possible. The

importance of industrial development as an engine of Bangladesh's economic growth is also reinforced by a growing realization that the development of agriculture sector, one of the mainstays of the country's economy, critically hinges on its backward and forward linkage with the industrial sector.

During the post-independence period, Industrial development of Bangladesh has been directed by several Industrial policies: Industrial Policy of 1973, the New Industrial Policy of 1982, the Revised Industrial Policy of 1986, Industrial Policy of 1999 followed by a number of other policies, with the latest being the Industrial Policy of 2010. All these policies have attempted to revamp the sector with a view to creating a strong manufacturing base in the economy.¹ As a result, according to the latest BBS data (FY09-10), the contribution of the manufacturing sector to GDP is 17.86 percent, which was recorded 17.9 percent in FY08-09. The BBS recorded the growth rate of the manufacturing sector at 5.73 percent in FY 09-10. The Industrial Policy, 2010, announced recently, proposes an integrated strategy of economic growth through rapid industrialization. It envisages an increase in the industry sector's share in GDP to 40 percent by 2021, with the proportion of the workforce employed in the sector concurrently rising to 25 percent of the country's total labor force. Data available from Bangladesh Bureau of Statistics (BBS) show that the quantum of industrial production, representing medium to large-scale industries, rose to 413.40 in FY08-09 from 254.45 in FY02-03. In FY 2009-10 averages QIP stood at 431.51. This implies that the large industry has come to play an increasingly important role within the industrial sector in recent years. The rise in the share of large industry in the industrial GDP, however, conceals the fact that the industrial base has continued to remain rather narrow. Accordingly, the top five industries contributed to sectoral growth excepting ready-made garment (RMG), the other four such industries belong to import-substituting category: pharmaceuticals, *bidi* (a sort of tobacco), publication and printing and re-rolling mills. However, excepting cement industry, which was supported by large FDI infusion, dominant import-substituting industries such as pharmaceuticals, soap and detergent, fertilizer, re-rolling, silk and synthetics have failed to post robust growth in recent years. On the contrary, driven by robust export sector performance, export-oriented industries such as RMG (both woven, and most notably knit), leather and frozen food have performed relatively well.

At the inception of Bangladesh (early 1970's), the manufacturing output

¹ Since independence in 1971, a total of seven industrial policies have been formulated and adopted for industrial development of Bangladesh.

accounted for 44 percent of total manufacturing output and was concentrated heavily on the processing of jute, the then major cash crop. With dampen demand for jute in overseas markets this industry exhibited downward trends. As a result of trade reforms, its concomitant impact on the production capacities within the country, enhanced access to production and non-production related imports and accelerated growth of exports, the degree of openness of the Bangladesh economy has gone up significantly over the recent past: from 13.5 percent in FY80-81 to 43.4 percent in FY06-07.² Exports expanded at 3.65 percent to 17.83 percent, whilst the corresponding figures for imports were 9.86 percent to 45.18 percent during the period. Consequently, there has been a steady rise in the capacity of export sector to pay for the rising imports: from 31 percent in FY80-81 to 67 percent in FY99-00. Over the last two decades there has been significant shift from resource-based to process-based exports and, from a significant dependence on primary commodities to manufactured ones within the export basket. However, the flip side of this is that there has been a parallel shift from jute-centric export structure to RMG-centric one with the result that the degree of concentration in exports has gone up significantly in the 1990s. Woven and knit RMGs now contribute about three-fifths of total exports from the country. This growing product concentration was also accompanied by a growing market concentration, where EU and USA account for more than four-fifths of the total export. Below is a succinct delineation of this transformation.

1.1 Initiation: Role of Korean Firms (1980s)

Within a single decade garments industry in Bangladesh has emerged as the single dominant industry in export arena: the industry set its profile with four billion dollars in gross value terms and employment scopes of more than million skilled and semi skilled women workers. This compelling successful economic development path was initiated in Bangladesh during 1978. At that time there were only 9 export-oriented garment manufacturing units, which generated export earnings of hardly one million dollar. Some of these units were very small and produced garments for both domestic and export markets. One of such units was Reaz garments established in 1960 as a small tailoring outfit, named after Reaz store in Dhaka. After serving only domestic markets for 15 years in 1973 it changed its name to M/s Reaz Garments Ltd and initiated new dimension in Bangladesh export industry by shipment of 10,000 pieces of Bangladesh

² Degree of openness of the economy shows share of export and import as a percentage of the corresponding GDP.

made garments (men's shirts) worth to 13 million Francs to a Paris-based firm in 1978. But the actual milestone was led by the Desh Garments Ltd established in 1977. It was set-up in joint venture with Daewoo of South Korea and at that time emerged as the single largest and most modern garment-manufacturing unit in the sub-continent. A contract signing of collaborative arrangement for technical and marketing between Desh-Daewoo during 4 July of 1978 enabled Desh garments to send 130 workers and management trainees to be trained at Daewoo's state-of-the-art technologies at Pusan plant in South Korea in 1979. The 130 Desh-selected trainees returned home after a six-month training period to form the nucleus of the RMG sector's technology and its core human resource base.³ Consequently, Desh's modern factory constructed with Daewoo's specification and technical assistance with capability of 6 lines, 600 workers, 5 million pieces per year capacity worth \$1.3 million investment goes into operation. Another South Korean firm, Youngones Corporation formed the first equity joint-venture garment factory with a Bangladeshi firm, Trexim Ltd in 1980. Bangladeshi partners contributed 51 percent of the equity of the new firm, named Youngones Bangladesh. It exported its first consignment of padded and non-padded jackets to Sweden in December, 1980.

1.2 Promotions by the Government (1990s)

Usually governments in less developed countries are weak and always lack proper timing and coordination with regard to creating supportive policy regime for conducive growth of emerging industry. From that perspective the role of successive governments to promote the RMG industry in Bangladesh is quite remarkable. It is worthy to note that the first export consignment of shirts from Bangladesh made by the state-trading agency, the Trading Corporation of Bangladesh, in the mid-1970s was destined to some East European countries under counter trade arrangements.

Bangladesh inherited its industrial policy framework from Pakistan which focused on bureaucratic control of a largely private industrial sector with emphasis on import substitution and near exclusion of foreign investment. Immediately after independence the government regime due to its socialist orientation chose to maintain tight control over the economy and started to nationalize all large-scale industries, in particular, jute and cotton textiles, sugar, and most banks. At that time limits were imposed on private investment and on foreign direct investment. After the coup d'état of

³ Eventually 115 of Desh's 130 initial workers left to set up their own firms or to join newly set-up local garment firms (UNCTAD-1999).

1975 a number of socialist policies of the previous regime was reversed to more pro-market and laissez-faire leaning even through the new regime intervened frequently in the economic development process. As a consequence, investment approval and loan disbursement procedures were simplified to liberalize the investment climate of the country. The investment ceiling was raised to Tk. 100 million and then finally withdrawn in September 1978. As a consequence, giant multinationals such as Daewoo and other South Korean firms initiated their intrusion in Bangladesh economy via joint ventures with local entrepreneurs'. During the early eighties, the government issued licenses to many entrepreneurs for the duty-free importation of machinery to produce garments for export purposes. Consequently, the number of firms in the garments industry increased rapidly and reached 632 in numbers in FY84-85. Export increased from US \$ 1.3 million in FY80-81 to US \$ 116.2 million in FY84-85.

Even though rigidity of government responsiveness in terms of adaptability of the ideas from private entrepreneurs is very common cases in LDC countries, in case of RMG in Bangladesh the scenario was quite extraordinary: the innovative ideas and strategies from the entrepreneurs were well accommodated by the policy makers of the government. Two most important financial features that play key role to expansion of rapid growth of manufactures are back-to-back L/C and bonded warehouse facilities. Both these policy components were formulated based on the prescription of the leading entrepreneurs. The innovation of the back-to-back L/C system eliminated the need for cash for working capital and the need for foreign exchange in the RMG industry. This allowed the entrepreneurs to set-up factories with low capital investment and thus allowed rapid growth of the industry. As consequence, these policies ensured net foreign exchange earnings for the country. As in 1993, revised import policy specified that the back-to-back L/C cannot exceed 70 percent of mother L/C. It implies that the foreign exchange spent on purchasing intermediate materials for manufacturing RMGs for export cannot exceed seventy percent of the value of export earnings. It, thus, ensures 30 percent net foreign exchange earnings of total export volume.

During 1980s government modified import policy regime for 100 percent export oriented garments industries to provide them with the scope of bonded warehouse facility instead of duty draw back system. Due to prevailing anti-export bias in the policy regime it was then restricted to imports raw materials but the policy modification permitted 100 percent export oriented RMG establishments to import fabrics, accessories at ease in duty free environment. This policy modification added extra edge towards the industry's competitiveness as it readily removed the bottleneck

of trade barriers in terms of bureaucratic hazards, rent-seeking power and effective lead time reduction of production.

Following the trends Bangladesh, government continuously supports the industry in terms of rationalization of tariffs and taxes on imports of capital machinery, raw materials, dyes and chemicals, and reduction of interest on long- and short-term loans. As a forward looking attitude, at present the Bangladesh government offers lucrative incentives for encouraging the use of local fabrics in the export-oriented garment industries. To encourage textile export, companies can import capital machinery duty-free. Cotton also may be imported duty-free. Moreover, the government recently has implemented several policy reforms to create a more open and competitive climate for foreign investment in the backward linkages of the industry.

1.3 Threat of MFA Phase out and Counteractions against It (2000-04)

It may be noted that textiles and clothing are susceptible to trade restrictions caused by trade friction. From historical trend it was found that after World War II Japan was strongly encouraged to exercise voluntary restraint on cotton textile exports to the US in 1957 because rapid expansion of Japanese textile exports frustrated the textile industry in the US (Yamazawa, 1988). Since then controlled trade has been the norm rather than temporary regulation of the trade in textiles and clothing. The import restrictions by the US, Canada, and the European countries were first incorporated as a short-term arrangement regarding international trade in textiles in 1961, which was followed by a similar long-term arrangement regarding international trade in cotton textiles between 1962 and 1974. In the sequel, a restricted trade regime was perpetuated through the Multi-Fiber Arrangement (MFA) on international trade in textiles, which came into effect in 1974.

When the World Trade Organization (WTO) was launched in 1995, it was assumed that the MFA system of controlled trade would be phased out by January 1, 2005. At the beginning of 2005 exports from China and India jumped in the first half of the year in open markets. Since China was the largest exporter of garments to the US and since the growth rate in the value of exports from China was extremely high, the US government seriously considered invoking safeguards to put brakes on garment imports from China. The EU also faced a surge in garment imports from China. As a result, the EU and China reached an agreement on a three-year “transitional arrangement” on June 10, 2005 which set ceilings on growth rates of exports of the main categories from China and limits the annual increase in Chinese garment imports to about 10 percent

until trade is liberalized in 2008. The US and China made a similar agreement in November 2005, which sets quotas covering nearly half of China's garment imports into the US by the end of 2008. So, the controlled trade regime partially survived up to 2008.

Academics and researchers have generally attributed the remarkable growth of RMG exports from Bangladesh to the Multi-Fiber Arrangement (MFA): bilateral quota system imposed by developed apparel countries, and low wages in Bangladesh (Siddiqi, 2004; Razzaque, 2005; and World Bank, 2005). The initiation of the industry was started by the Korean and Hong Kong ventures in order to penetrate the developed countries market via channeling their production through Bangladesh's granted quota access. In 2002 Bangladesh depends on quota restrained markets for about 94 percent of its RMG exports, among the highest ratios in the world. Such high concentrations of market access through quota readily pose concern for her potential vulnerability to the possible large scale shock due to abolition of quotas among policy planners, researchers and academicians. The main concern was related to the competitiveness of Bangladesh garment industry and its growth in the quota free world which might, in turn, deteriorate country's balance of payments, output and employment vis-à-vis overall macroeconomic balances.

Several studies have conducted to assess the potential impact of MFA phase out on Bangladesh economy. Most of these studies used general equilibrium model for their simulation exercise to estimate the possible impact of phase out on Bangladesh economy. Elbehri (2004), Lips et al. (2003), Mlachila and Yang (2004), Nordås (2004), and Spinanger (2004) had been the five main quantitative studies that had used database provided by Global Trade Analysis Project (GTAP) based at the Purdue University, the USA. Most of these studies depicted a gloomy future for the garments industry of Bangladesh in open era.

Spinanger (2004) found that the abolition of quota could result in 8 percent fall in exports that would lead to the country's GDP decline by 0.54 percent. Mlachila and Yang (2004) considered as one the most influential studies argued that planned abolition of the quotas would alter the competitiveness of various exporting countries and the relatively weak competitiveness makes the Bangladeshi economy highly vulnerable to the final stage of the quota phase-out. Assessing the quota restrictiveness and export similarity, and analyzing its supply constraints, the paper concludes that Bangladesh could face significant pressure on its balance of payments, output, and employment. They estimated that MFA import quota abolition may result in a decrease in exports of apparel from Bangladesh by 6.2 percent to 17.7 percent. Nordås (2004) does not find an

absolute decrease in total export from Bangladesh but finds a decrease in the market share of Bangladesh's apparel in the US market. Lips et al (2003) found that the phase out would lead to a 20 percent decrease in the production of Bangladeshi wearing apparels. They also analyze the decomposition effect and found that due to phasing out negative terms of trade effects will cause Bangladesh's welfare loss by around \$ 340 million. Fontana et al. (2002) using a computable general equilibrium (CGE) model of Bangladesh in association with a social accounting matrix constructed for 1999-2000 simulated the scenario in context of RMG price shocks. They found that just a 9 percent decline in the world price would lead to a consequent 29 and 35 percent shrink in volume and value of Bangladesh RMG export.

The empirical data shows that the RMG has grown consistently after the phase out period. It has been noted that from 1990 the RMG exports on average grew at an annual rate of about 19 percent up to 2005. Data from Export Promotion Bureau (EPB) show that during the first six months of the quota-free regime the RMG sector registered export growth of about 19 percent. The growth rate recorded for FY05-06 was higher than average to 23.5 percent. In value terms between July 2004 and June 2007 RMG exports earn \$ 4 billion extra which is 75 percent higher of the RMG export volume of FY03-04. From the empirical evidence it is evident that Bangladesh comes as winner in the post-MFA world.

1.4 Aftermath and Reconciliations with Workers (2005-till Date)

Mechanization and automation have not diminished the role of human element in industrial establishments. Nor have the economic reforms belittled the significance of labor. Human resource is an important factor to increase productivity and quality and to reduce costs; all of the factors of production are equally important to survive in the competitive world. In fact, the role of workforce has become highly critical in garment industry. Labor force is an important input in industrial production and this is equally in garment industry of Bangladesh.

History of labor unrest is as old as history of industrialization. History of the Industrial Revolution in England in late 18th century records the plight and struggle of working class people. Workers were to work for long hours in unhygienic environment for a low wage. They lived in shabby slums of Lancashire and London and were deprived of nutritious food, medicine and health care, and education for their children. There were no daycare center and women with children had to work in the factory keeping their children asleep with sleeping syrup. Frederick Engels commented that

“intellectually, they were dead; lived only for their petty, private interest, for their looms and gardens, and knew nothing of the mighty movement which, beyond their horizon, was sweeping through mankind”. Garments workers in Chicago fought against working 12 hours a day and seven days a week in 1886, some 125 years ago. The phenomenon still remains same in Bangladesh. At twenty first century it can easily be compared with the condition of working class in England at the outset of Industrial revolution.

Despite having a significant achievement in national economy, labor unrest in this sector is not diminishing at all. In order to survive in the quota-free competitive international market, addressing labor unrest has been a crying need. Labor unrest has been a common phenomenon in the RMG industry of Bangladesh. Workers are being embroiled in clashes frequently; they call strikes often to press their demand home. It causes enormous loss to the owners, cripples the economy and tarnishes the image of the country abroad. It also makes foreign buyers reluctant to render future orders. In addition the industry is losing competitive edge for this.

But the basic needs of the labor force must be mitigated. The socioeconomic condition of labor force of RMG industry of Bangladesh, in no way, can be said well. As most of them are uneducated and unskilled, they get very poor salary in contrast to ever-increasing expense of livelihood. Very often they do not get their salary, bonus and overtime bills in time. In many factories they are forced to work long hours in unhygienic condition. Maltreatment by the mid-level officers is their common fate. As there is no provision for trade unionism, they do not have any access to the policy-making process. In such a situation, they come to the street to raise their voice and involve themselves in vandalism and rampage.

Several studies have closely looked at the causes of the uprising within this industry. Among them Hossain et al. (2010) analyzes the various estimates of basic needs in terms of calories and relevant per day money value to meet up such requirements and found in all respect living conditions of RMG workers are worse than any other social group of the country. He concludes that long-standing deprivation of basic human needs often force the garment workers to follow the path of violence. Absar (2001) argues that low wage and sub-standard living condition are major causes of labor unrest in the RMG industry of Bangladesh. He rightly argued that those who can get adequate food and live in better environment can contribute more to the production than those are deprived of these necessities. In respect of wage and living standard, the garment workers of Bangladesh lag far behind of those of China, Sri Lanka and Vietnam. Yet, RMG production is higher in Bangladesh. The owners of

garment factories should take it into consideration. He further points out another cause of labor unrest in the readymade garment industry of Bangladesh: workers' lack of feeling of ownership.

Shahiduzzaman (2010) claimed that most garment factories do not follow the labor law and ILO conventions. The Labor Act, 2006 clearly stipulates that the wages of a worker must be paid within seven working days of the completion of the stipulated wage period. This is not followed in practice. In addition, some of the factories do not provide appointment letters, identity cards and service books. Alamgir (2010) found that from the generated total net profit in the industry, only 30 per cent is being spent on the workers, whereas around 50 per cent is spent on workers' wages in other countries. Ali (2008) observes that the adverse impact of labor unrest in national economy of Bangladesh. He reported that ownership of about 40 large scale garment factories has been handed over to the foreigners and ownership of about 100 factories is under process of handing over during the previous one year. This, the author, claimed was happening under intensive supervision of high officials of factories who are responsible for widening the gap between the owners and workers.

Though causes of labor unrest are many and cross-cutting, it is evident that the foremost is the long-standing grievance of the workers. In this regard workers concern for job security and ensure payments are crucial and need to be look at. At present it is established that the wage they get is low. Very often they do not get their salary, overtime bills and bonus in time. Their recruitment system is outright hiring and firing as they do not get any appointment letter and identity card of the factory, they can be dismissed by owners for any reason at any time. They do not know anything about their job contract. Being maltreated by owners and mid-level officers, working long hours in congested environment without sufficient rest, lack of nutritious foods, medicine, right to legitimate protest against ruthless exploitations, etc. are their daily destiny. Factory building collapse, fire accident, stampede render many dead and injured. Nevertheless, if any worker protests against owners or management, he/she is threatened by various types of harassment such as dismissal, arrest or even physical assault by the hired hooligans of owners.

The conflict of interests between buyer and seller of labor power has become conspicuous and this has led to the rise of trade union movement throughout the world. The tradition of the parallel development of the nationalist and the trade union movement, which has originated in British India, continued through the Pakistan period down to the birth of Bangladesh. Bombay Mill Hands Association, first of its type in

India, formed in 1890, gave impetus to the trade union movement in British India. The establishment of ILO in 1919 provided a source of inspiration for the workers to organize themselves and shape their destiny.

History is the evident that the outburst of workforce deriving from their struggle for a humble living can never be subdued. Coercive measures to disperse the agitation only infuriate the workforce which can take the shape of a revolution. Taking necessary steps to solve labor unrest in RMG industry is a demand of time.

Under prevailing uprising Bangladesh government has taken initiatives to address the grievance issues through fixing minimum wage for the industry. In this regard government formed a high powered body to recommend the minimum wage by consulting various social stakeholders. The body was also asked to prepare a report on the nutritional requirements of the apparel workers by consulting the Institute of Food and Nutrition of the University of Dhaka, Sramik Karmachari Oikya Parishad and other garment workers' association. The board recommended the minimum wages in light of 10 issues: cost of living, living standards, production cost, productivity, cost of the goods produced, inflation rate, job pattern and associated risks, business capacity, socioeconomic condition of the specific industrial sector and the country as well as other relevant issues. But incorporating such issues resulted in a number of controversies as the Bangladesh Bank, BBS, and BIDS reported that since 2006, the cost of living increased by at least 35 percent, while Centre for Policy Dialogue (CPD) reported that the average cost of living has risen by around 70 per cent. Still CAB reported that the average cost of selected food items and other major utilities, consumed by workers, had increased by 53 percent on an average. Despite these controversies the body recommended that the wage structure for the garment workers as follows:

(Table 1)

The second phase of labor unrest in the RMG sector in 2010 began with the implementation of the new wage. Though reluctantly the workers accepted the new wage structure, many factories are found not implementing the new scale under various pretexts. Despite repeated severe warning from government; factories were found to have been flouting it. It may also be noted that implementation of the new wage structure is difficult under present political and administrative institutions as several stakeholders play key roles. RMG entrepreneurs in Bangladesh argue that low wages in the RMG sector reflect the low productivity of workers in the sector. Khatun and

Moazzem (2007) suggest a number of factors need to be considered while fixing the minimum wage of industrial workers. These are: i) workers' minimum requirement for decent living; ii) enterprise's capacity to adjust with the additional cost originating from the rise in wage; iii) consideration of the wage structure of similar types of industrial sectors; and iv) adjustment of the wage with country's economic development. Further, CPD (2003) suggests for continuing dialogue between workers and management, particularly in view of changing employment composition and new types of demands.

Management of RMG enterprises should take necessary and prompt measures in case any misconduct with workers is reported. There should be a proper mechanism for placement and addressing of workers' complaint at factory level. Enterprises, in a position to do so, should appoint a "grievance officer" to deal with factory level misconducts. Labor relations is likely to become crucially important in near future and RMG enterprises must accord due attention to this. That is why Shahiduzzaman (2010) perhaps underscores that in the absence of an appropriate formal channel to air grievances and seek redress, the only avenues open to the RMG workers are street protest, picketing, or *gherao* of a manager's office or a factory. So far, the government has largely left the RMG sector to such devices. At present, it seems workers collective bargaining powers are not institutional as trade unions are not permissible in the industry. As result of the absence of trade unionism, sometimes silly rumors may transmit into a large scale vandalism protest. A recent study (Khan 2011) argues that for tackling labor unrest in the industry formation of a tripartite committee (a committee formed by taking representatives of factory owners, government and garment workers) only can foster the need of cooperation between public and private organizations in this issue.

However, as the evident from industrial revolution showed when, in course of time, government realized the importance of workforce and adopted welfare policies such as increasing wages, limiting working hours, providing trainings, establishing daycare centers and schools for the children of the workers etc. it made a significant to resolve the conflict. Labor unrest is a social phenomenon of enormous complexity; hence it is very difficult to give any complete explanation of this phenomenon. It is a matter of controversy whether the predominant factors underlying labor unrest are economic or non-economic. Whatever might be the cause of labor unrest in the RMG sector, impact is, beyond doubt, catastrophic. All the four parties- the workers, the owners, government, and foreign buyers are affected. The whole economy of Bangladesh will be adversely affected if such unrest continues. It has been concluded

that so long as income remained the all important means for satisfying human wants and needs, wage would continue to be major consideration in labor unrest. Labor force has been the most important factor in RMG industry. Government is to play a vital role in addressing the problem. By formulating policy regarding management of labor force of RMG industry, by involving the workers in the decision making process, by regular monitoring the factories and conditions of the workers, by evaluating the implemented policies and reviewing opinions of the stakeholders, government can help a lot to solve the problem and continue the success story.

2 Sources of Competitiveness in the RMG Industries

It is evident from the foregoing reviews that overall growth of the apparel sector in Bangladesh has been supported by a regulated international trade regime and a proactive domestic policy framework. But the intrinsic competitive components of RMG sector can be attributed to cheap labor supply. However, this raises concern for the sector as the potential for Bangladesh to assert its cheap labor-based competitive advantage is circumscribed by the modest share of labor in the cost structure of RMG products and the marginal presence of backward linkages in processing activities. The present section identifies in depth the crucial factors in the RMG sector that maintain the global competitive edge of the industry.

2.1 Low Wage Rate

As the industry is highly labor-intensive in nature, the historical evolution of world apparel business reveals that comparatively lower wage rate countries were always the major apparel supplier in the world. As human labor is embodied in the manufacturing process, it makes wage rate as an important determinant of production cost. As quotas were imposed on some apparel exporting countries, a large number of intermediate buyers shifted sourcing of RMG products to Bangladesh which was reinforced by the market access power of the country through the US and Canadian markets quotas imposed on imports of apparel garments. Considerably the then prevailing low wages ensured competitive prices for the ventures entrepreneurs to shift their production transition process. Although labor productivity was an issue, low wages helped Bangladesh focus on high volume mass production of RMG items, competing directly with countries such as China, India, and Vietnam.

Though Low wages go a long way in explaining the attractiveness of Bangladesh-made garments to foreign buyers but increasing liberalization of the global textiles market creates new challenges if the industry in the country continuously relies on a low skill/low wage strategy. Because it is widely held that cheap and readily employable labor underpins the competitive advantage of the country's export sector. In other words, wage rates in the RMG sector can be interpreted as market clearing wages established in a more or less flexible labor market even though inter-industry wage differentials indicate a depressed wage situation in the RMG sector (Bhattacharya and Rahman, 1999). In a sense abundant, readily available labor and its low opportunity cost lead to low wage levels, providing a comparative advantage to female labor in particular operations in the RMG production cycle.

Female workers in Bangladesh were traditionally linked to global markets through export of tea and raw jute. Women entering the industrial labor force in Bangladesh generally find themselves in low skill/low wage jobs. In RMG production, female workers are predominantly concentrated in low-skill/low-wage operations and, thus, are low paid. Most women are either production workers or helpers (female workers constitute 40-60 percent of the total workforce in the latter category).⁴ The sectoral distribution of female manufacturing employment in Bangladesh remains highly skewed, according to 1995 labor force survey the wearing apparel sector, categorized under Bangladesh Standard Industrial Code (BSIC) 323, alone employs about 85 per cent of the female industrial employees (which is about 12.9 per cent of total manufacturing employment). This is followed by textiles manufacturing including cotton, synthetic and jute textiles (BSIC 321 and 322), which account for about 6 percent of female industrial employees or approximately 1 percent of total manufacturing employment.

Given the low opportunity cost of female labor in Bangladesh, is female labor attractive because women are paid less than men for similar jobs—even when productivity differentials are accounted for? This particular concern is heightened by the fact that entrepreneurs prefer to employ young, single, literate women in export-oriented units. Accordingly, non-wage factors (such as social docility and amenability to repetitive process functions) prompt entrepreneurs to opt for a distinctive set of female

⁴ According to the tripartite agreement signed in January 1994 (Statutory Regulatory Order No. 14 - Minimum Wages Ordinance) workers in the RMG sector are categorized into seven grades. Most of the female workers are concentrated in Grades 5 and 6 (junior sewing and knitting machine operators, and general sewing and knitting operators). Minimum wages fixed for these two types of operators in 4th wage board (2010) are Tk. 3553 and Tk. 3322, respectively.

labor. Thus, non-wage factors clearly influence employment patterns as well. Available information also suggests that conventional measures of gender bias (such as wage gaps, access to employment and lack of job security) are relatively less conspicuous in the organized segment of the manufacturing sector (Bhattacharya, 1999). These trends are present in units located in both export processing zones and the domestic tariff area. These are characteristics of the labor force of foreign-owned units in particular—which tend to have the most advanced technology and the highest productivity levels in the country (Bhattacharya, 1999). Majumder and Begum (2006) show that occupational segregation and gender discrimination in wage rate was wide.

(Table 2)

In general, the level of wages in the RMG sector is low for both males and females. The daily wage rate of RMG workers compares unfavorably with that of similar categories of workers in both the public and private sectors. It is noteworthy that the overwhelming majority of the workforces in the RMG sector are non-unionized women, which has also enabled entrepreneurs to keep the wage levels depressed. Moreover, workers in RMG factories in the export processing zones are barred by law from organizing trade unions of their own. Workers often try to complement their low wages by working overtime, which, in effect, is a mandatory practice in Bangladesh's RMG factories. As labor standards and labor rights are gaining prominence on the WTO's agenda (in addition to that of the ILO, which has long treated such issues), the working environment in Bangladesh's RMG sector is likely to undergo substantial changes. Furthermore, complaints by some US NGOs and the Harkin Bill (which calls for sanctions on imports to the US from countries using child labor) forced Bangladesh to take urgent measures to enforce a 'Memorandum of Understanding' on the phase-out of child labor in the RMG industry. The threat of similar sanctions and measures underscores the need to implement policies to improve the working environment for all RMG employees in Bangladesh.

Export-oriented RMG entrepreneurs in Bangladesh argue that low wages in the RMG sector reflect the low productivity of workers in the sector. It was found in a study that the average monthly wages of skilled factory workers in textile and other sectors is 1.4 to 2.0 times that of similar workers in the RMG factories. However, it is to be noted that there is a limit to the extent to which low wages can be translated into low unit costs of production. Since the productivity of labor is also relatively low in Bangladesh,

the cost of production per unit of output tends to be on the high side despite low wages. Bangladesh's apparel sector enjoys comparative advantage mainly because the sector is labor intensive and low productivity is somewhat offset by low wages (Bhattacharya and Rahman, 1999). Again a technical evaluation of a joint ILO/UNDP project (BGD/85/153) computed that person-minutes required per basic product in Bangladesh's RMG sector is 25.0, while it is 14.0 in the US, 19.7 in Hong Kong, 20.7 in the Republic of Korea and 24.0 in Sri Lanka.

2.2 Government Policies

Government role in terms of letting conducive policy environment for flourishing the industry in less developed country has very little success story. In this prospect Bangladesh government policy setting has been point on especially in case of RMG sector. Most extraordinarily Bangladesh government formulate policy in such way it let more or less the sector alone, not regulating it while almost everything else in the manufacturing sector was heavily regulated. Most importantly the sector's success was designed by some innovative policy designs which enable the external financing through back-to-back letters of credit and the provision of special bonded warehouses to access inputs at international prices. Interestingly these innovative policies were only effective for RMG sector while the regime was predominantly representing weak domestic financial sector and Bangladesh's the then high tariff walls. The innovations actually insulated the sector fairly effectively in a policy enclave. Besides, the government helps the industry indirectly by providing other policy support such as the duty drawback scheme, cash incentives. Some other notable initiatives taken by the government are the adoption of conducive investment and industrial policies, encouragement of foreign direct investment, establishment of export processing zones and organizing trade fairs inside and outside the country. More specifically, there is exemption of corporate taxation on export profits, although this has been weakened since 1992 by the imposition of advance income tax. Besides, the industry has enjoyed a concessional duty rate of 7.5 percent on capital equipment imports for several years. This incentive has been improved recently by allowing special bonded warehouse licensees to have their local banks guarantee the duty, with one third liquidated when the equipment is installed and another third liquidated subsequently. Until the official exchange rate was unified with a secondary rate in 1992 the industry was assisted by an export performance benefit designed to close the margin between the official and market exchange rates.

Government focus on encouraging export-led industrialization was the main objective behind such government initiatives. The government provides the advantage of duty-free raw material imports usable in the manufacturing of export products to encourage and accelerate such industrialization. However, proper monitoring and careful implementation of this duty-free raw material import strategy is important to protect the illegal infiltration of imported materials into the domestic market. Such infiltration hampers the development of local backward linkage sections. This issue is restraining the government from coming to any final decision on allowing the duty-free import of raw materials in huge quantities and storing them in common bonded warehouses for use by export-oriented garment factories in order to reduce lead time.

In contrast to such positive outcomes of policies another concern is the issue of proper and on-time implementation of policies and strategies. Rules and regulations that exist only on paper are meaningless if they are not duly and properly implemented. Again such monitoring and implementation are hindered by the bureaucratic complexities, corruption within the sector. Hence, political instability and lack of good governance are some areas which the government needs to address in order to ensure the proper implementation of its strategies and policies. Infrastructure development is another area where the support of the government is undeniable in a developing country such as Bangladesh. Moreover, the government needs to strengthen its support for the development of port and other physical infrastructure, for smooth utility supply, improved security systems, the attainment of a corruption-free business environment and political stability. Such steps will contribute to reducing the lead time while building the confidence of international buyers.

In 1980, the Bangladesh Bank, the central bank of the country, granted the back-to-back letters of credit and bonded warehouse facilities to RMG producers/exporters, decreasing their working capital requirements and allowing duty-free access to inputs for the sector. In what follows is a succinct analysis of these facilities:

2.2.1 Back-to-Back Letter of Credit

Under the back-to-back letters of credit scheme extended by commercial banks, the exporters of RMG are able to import inputs (i.e., fabrics and accessories) against the export orders placed in their favor by the RMG importers. The mechanism is like when an order is received by the exporter in a master (Export) L/C form s/he then approach her/his bank (the local bank) to open an import L/C for fabrics and trimmings needed.

The banks accept this system as their risk is rather limited if the documents are good and can earn a good profit on the entire transactions. The amount of financing is sometimes close to 75 percent of the value of output. Given this provision, Bangladeshi exporters do not need to invest their own resources to finance working capital and thus the facility enables them to overcome the constraints of obtaining world-priced raw materials.

2.2.2 Bonded Ware House Facilities

Under the bonded warehouse facilities, the imported inputs can be cleared through the customs against export orders without paying any import duty. This ensures that the export-oriented RMG units can access imported inputs at zero-tariff. Around 75 percent of the value of the product can be stored on factory premises. This allows the industry to circumvent the difficulties involved with paying the duty and later putting claims on those taxes.

2.3 Internal Dynamism of the Industry

The level of exports achieved and the speed at which the industry was able to penetrate global markets and sustain the expansion makes the history and political economy of the apparel exports from Bangladesh a compelling economic development case study. The garment industry's success is unusual and remarkable partly because the initial conditions in Bangladesh were so unfavorable. The success of garments industry was, therefore, unexpected and proves that the unfavorable odds, individually or combined, need not to be fatal to industrialization and export growth. In this respect the genesis of internal dynamism within the industry is very compelling. Some of the enabling factors are discussed below.

2.3.1 Role of BGMEA

During 1982 Bangladesh Garment Manufacturers and Exporters Association (BGMEA) was formed to promote and protect the interests of the manufacturers and exporters of RMG. A model of an industry association that is given monopoly over quota and other issues is to be found in the Philippines and in some other countries. In Bangladesh the model has worked well. During most of its history the organization has functioned moderately efficiently to serve the collective needs of the factory owners. It is certainly one of the most important trade organizations in the country. It is also strategically positioned in the business of getting new orders and has an important voice in the quota

negotiations and in the administration of the quotas. Quota management is crucial so as to avoid over-supply of any category that can attract external penalties or embargo. The secondary market in quotas also works well, with quotas freely transferable to facilitate their utilization. The Export Promotion Bureau (the government watchdog) plays only a minor role in this market, registering transfers when they occur but with no system for providing advance information on quota availability for transfer. Finally, from the viewpoint of private sector development, the special status which the industry earned by its impressive early contribution to exports enabled the emergence of BGMEA as a strong industry association that could command the direct attention of the political establishment to ensure the availability of the above incentives. The annual convention called BATEXPO has been reasonably successful in getting the politicians to renew their commitments to the core business of exports and in presenting the new products to foreign buyers. For example, during BATEXPO'97, the then leader of opposition announced in a speech that the garment sector would be outside the purview of *hartals*. The dynamism of the association involves it to deal with a host of problems including the child labor issue, the disruption due to flood, bureaucratic corruption, interaction with the ministries, extracting concessions on tax and other issues rather well.

2.3.2 Technology Adoption and Adaptation

In developing world the garments industry runs on three basic operations: cutting, stitching, and pressing/finishing. The typical production is a combined process of various specialized and/or general machines operated by manual/mechanical/electronic devices by skilled and unskilled labor of diversified organizational production activities (Bhavani and Tendulkar, 2001). Traditionally, high technology and R&D activities have been less prioritized in the garment manufacturing industry. However, in many instances, the production involves manual operations of machines and materials of automated assembly. Since the materials need proper feed through the machines, automation is limited (Bailey, 1993). Therefore, the technology adoption in the industry has primarily been mass-production focused, and technology development and usages have been limited. In recent years, however, the change in the market trends and fast fashion styles reduced demands for mass production models. Apparel executives believe that industry competitiveness depends upon the ability to quickly respond to demand with a variety of practices and better engineering practices (Bailey, 1993). Desired levels of production and quality can be achieved by adoption of newer technologies and techniques. Apparel makers strive to cope with ever-changing fashion styles by reducing

the time it takes to design, produce, and deliver the goods. Accordingly, the industry began to place greater emphasis on advanced technologies to fulfill the extended demand for production, speed, and quality requirements for the competitive export market. Recent technology changes in clothing manufacturing include: development of robotics for automation assembly line for garment making; high-speed sewing machines; new pressing and fusing techniques; computer-aided design; computer-aided manufacturing; and computer aided marketing. In practice these technologies are used individually or in combination with other technologies to achieve the desired economies of scale.

Usually, the size of a firm has been a conventional factor that determines the innovation and performance level of the firm: firm size positively influences the degree of innovation and technology adoption of a firm. Normally large firms have an advantage over small ones as their financial strengths allow them to be more capable adopters. Although small firms have certain advantages over larger firms in terms of flexibility, informality, adoptability, and operational speed (Fiegenbaun and Karnani, 1991), so the size positively affects the technology adoption of the firm. Insofar as most of the firms in Bangladesh are of small scale informality and adoptability mainly determine the operational speed. As R&D process is a rare activity in small firms, technology adoption for them remains incremental or often imitative.

Export orientation can be conceptualized as the extent to which a firm is motivated to export and various export activities are undertaken. Thus, a firm's export orientation may influence adoption of technologies. Studies have also found that technology activities are an important factor in explaining the export performance of firms in developing countries (Kumar and Siddharthan, 1994). Similarly, a firm's adoption of advanced manufacturing technology is found to be positively correlated with the export orientation of the firm (Mottaleb and Sonobe, 2011). It seems that technology adoption has become an essential element of export orientation for a firm. Accordingly, export orientation is hypothesized to positively affect the level of technology adoption in a firm. In that sense technology adoption is very high in Bangladesh garments industry as most of the firm are associated with the international market through export activities. A firm may adopt or borrow technology already in use within the industry but high cost associated with advanced technology adoption. Likewise, the advancement and adoption of technology increase the need for human support. Appropriate and effective employee skills and practices are increasingly important in today's technology-based manufacturing. Many forms of technological

implementation, especially adoptions of new manufacturing technologies, need to be accompanied by changes in skill requirements (Doms et al., 1997). Even when the technology activities of a firm are limited to an adoption of existing technologies, they require the services of highly qualified engineers and technicians in order to identify and make use of relevant information (Mason and Wagner, 1994). A lack of skills inhibits installation of newer equipments due to poor understanding of the technical nature, potential of the equipment, and usage (Steedman and Wagner, 1989).

It has been found that skilled labor has been one of the most important strategies that contribute to the growth of small and medium-sized firms, and it is likely to be a facilitator of technology adoption (Baldwin et al., 1994). Therefore, firms that have a skilled labor forces to support advanced technology are more likely to be proactive in adopting technologies because of the availability of technical skills. That is why BGMEA of Bangladesh established a specialized institution, National Institute of Fashion technology (NIFT), mainly focused on meeting the supply requirement of skilled labor force in the industry. The Institute trained up participants at both undergraduate and graduate levels.

The ultimate goal of advanced technologies seems to be producing better products and services at lower prices, which results in gaining a competitive edge. Firms can gain competitive advantage and grow as a result of technology adoption and implementation. Within this structure the role of local importers (buying house) is two folds and unique. These importers usually represent overseas buyers and are vital to the success of the industry, because of the nature of the readymade garments industry in Bangladesh that is almost based on the cost of manufacture and where the majority of medium to small sized garment producers are actually working for the local agents. Hence, without them the industry would be far smaller as it is totally production oriented. The role of the local importers is to assist in the planning, organization and supervision of garment producers' work performance, often managing customer relations and supervising quality control. The local importers also ensure manufacturers' compliance with specific rules and regulations in force in the countries of final destination of the garments, such as those relating to environmental and child labor issues. The local importers can choose only manufacturers who are able to comply with the quality controls of their parent company. Thus, in a sense they mainly transfers advanced technology into the local industry and also act as guiding sorter of the effective technology inflows into the industry which is mainly based on latest market demand.

Regular organizing of trade shows, fairs are very effective mechanisms of technology transfers. In this regard the industry arranges more specific specialized events along with time it grows. Over the years GARMENTECH Bangladesh has grown as the most recognized marketing forum for the suppliers of apparel making and allied machinery. Global leaders in technology for knitting, sewing, embroidery, CAD/CAM, finishing and laundry, printing and related machinery always make it a point to launch and showcase their new technology/machinery at the show. GARMENTECH Bangladesh, now in its 11th edition, is the most comprehensive technology tradeshow for the RMG industry in Bangladesh. Improvement of productivity in existing factories, modernization of production capacities, new technology for value addition and adaptation of best and smart manufacturing practices are the watchwords being adopted by the industry to convert the existing potential into reality through this event. Besides, the 3rd International Yarn & Fabrics Sourcing Fair Show has now become a regular event. New specialized initiatives are also emerging as Bangladesh Corrugated Carton & Accessories Manufacturers & Exporters Association (BCCAMEA⁵) jointly with ASK Trade & Exhibitions Pvt. Ltd. proudly presents PACEXPO 2012, an International exhibition on packaging, garments accessories and their raw materials, machinery and services for the first time in the country.

The adaptability of industry mainly in crunch time, such as handling the child labor issues during 1990s, shows the deep rooted competitiveness of the industry. The early 1990s witnessed the intensification of debates concerning social clauses in international trade agreements linked to core labor standards such as the abolition of child labor. During 1991 trade unionists, human rights groups, consumer and religious organizations, under the umbrella of the child labor coalition, promoted legislation to prohibit imports into the US of products made with child labor. As a consequence of intensified globalization there was a growing concern, particularly from the labor movement, about a “race to the bottom” in which workers’ rights and working conditions worsen as countries seek to be more competitive. The garment industry in Bangladesh became the center of these debates, illustrating the profound impact of the dominant market. In 1992 a bill: Child Labor Deterrence Act (otherwise known as the Harkin Bill) was presented in the US Senate to ban imports made with child labor.

⁵ BCCAMEA is the second largest export oriented trade organization of the country & represents more than 1000 Garments Accessories & Packaging Industries of the country. These industries produce Garments Accessories & Packaging products to cater to the needs of the export oriented garments industries & other export oriented industries also.

Though this legislation was never passed (in this case the negotiation strategy of the BGMEA through diplomacy was more crucial), the BGMEA responded by urging its members to remove under-aged workers from their workplaces in conformity with the national Factory Act that set a minimum age for employment of 14 years. In an ensuing climate of fear and panic, abrupt dismissals of thousands of child workers began in 1993. It was reported that as many as 40, 000 to 50,000 children were laid off. The BGMEA announced its self-imposed deadline of a child-labor-free industry by 31 October 1994. In 1994-95 an agreement emerged in which the BGMEA was persuaded to set aside its deadline in favor of a phased and measured program. The MoU was signed on 4 July 1995 by the BGMEA, the ILO and the UNICEF and was endorsed by the Government of Bangladesh. The MoU was designed to facilitate removal of child workers from the garment industry and their placement in appropriate education programs making best use of the comparative strengths of the BGMEA, the Government of Bangladesh, the ILO and the UNICEF. The main agenda was to put restraint on new recruitment of child workers; a temporary halt to terminating under-aged workers until an education program was in place, a non-formal education program including educational stipends. In 2000, additional components were added on skills training and credit and income maintenance. The MoU is among the best-known child labor interventions of the last decade. Most importantly despite of removal of such large number of labor which previously believed as the main source of cheap labor force, the phase out had very little impact on the overall industry cost and production scenario which further emphasizes the deep rooted internal dynamism of production flexibility of the industry in terms of adaptability.

3 Concluding Remarks

The garment industry in Bangladesh had been expanded year by year until MFA was phased out at the end of 2004, and remains internationally competitive after that. The initial high presence of foreign capital has been diluted as local garment producing firms grow.

In this chapter, sources of competitiveness of the industry were discussed. Three potential strengths were examined one by one. Market force, which is represented by low wage of labor, is surely fundamental to the competitiveness. The roles of the government, industrial associations, and technology transfer are still contentious issues

to be discussed in the final report.

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Table 1: Wage Structure of the RMG Workers as Recommended by the Wage Boards

Grade with Posts	Basic Pay	House rent (40% of Basic)	Medical Allowance	Net Salary
Grade 1 : Pattern Master, Chief Quality Controller etc.	Tk.6500	TK.2600	Tk.200	Tk.9300
Grade 2 : Mechanic, Electrician, Cutting Master etc.	Tk.5000	Tk.2000	Tk.200	Tk.7200
Grade 3 : Sample Machinist, Senior Machine Operator etc.	Tk.2870	Tk.1148	Tk.200	Tk.4218
Grade 4 : Sewing Machine Operator, Quality Inspector, Cutter, Packer, Line Leader etc.	Tk.2615	Tk.1046	Tk.200	Tk.3861
Grade 5 : Junior Machine Operator, Junior Cutter, Junior Marker etc.	Tk.2395	Tk.958	Tk.200	Tk.3553
Grade 6 : Operator of General Sewing/ Button Machine etc.	Tk.2230	Tk892.	Tk.200	Tk.3322
Grade 7 : Assistant Sewing Machine Operator, Assistant Dry washing man, Line Iron man etc.	Tk.2000	Tk.800	Tk.200	Tk.3000

Note: 4th minimum wage structure for the garment workers.
Source: Minimum Wage Board, 2010.

Table 2: Apparel Labor Costs in 2008

Country	For US Market USD/hr
Bangladesh	0.22
Cambodia	0.33
Vietnam	0.38
India	0.51
China	0.55-1.08
Turkey	2.44

Source: Jassin-o-Rourke Group, LLC.