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An Assessment of the Competitiveness of Bangladesh's RMG Sector Using Porter's Diamond

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Abstract

The ready-made garment (RMG) sector of Bangladesh has gained global recognition, competitiveness and has significantly contributed towards national growth. This paper aims to scrutinize the factors that enabled the sector in achieving this position by applying the Porter's diamond model of national competitiveness. The paper reviews a good number of existing literatures and data sources to evaluate the national diamond. The findings suggest that though low-cost human resources under factor conditions have extensively contributed towards the sector's competitiveness, the other three elements of the diamond (national demand conditions, related and supporting industries, firm structure and management) were either dormant or not very active. The study puts forward the notion that nations can achieve global competitiveness in a sector even if the national diamond is not strong enough.

Keywords

Bangladesh, Competitiveness, Porter's Diamond Model, RMG Sector

1. Introduction

Bangladesh, a nation once labeled as "basket case" by former US secretary of state Henry Kissinger (The Economist, 2012), has paved its way to the "Next 11", a group of eleven emerging economies that are predicted to become the next BRIC (Lawson, Heacock, & Stupnytska, 2007). BRIC is an acronym for the economic bloc consisting of Brazil, Russia, India, and China respectively. The economy of Bangladesh grew almost three times over the last decade and almost nine times since 1990 (The World Bank, 2020). The ready-made garment (RMG) sector has been one of the major driving forces of the national economy. It is the primary source of export earnings, and solely contributes 84.21% towards total export earnings of the nation (BGMEA, 2020). The sector has also been successful in realizing global competitiveness. According to recent trade statistics, Bangladesh is now the second largest apparel exporting nation after China (World Trade Organization, 2019). Due to the heightened importance of the sector on national economy and its triumph in attaining competitiveness, it is critical to study the factors that laid the foundation. This paper aims to investigate the factors that led towards the creation of its competitiveness in the global arena by applying the Porter's diamond model of national competitiveness. The researchers take a holistic approach to studying the factors rather than following an explicit method. Most of the studies in the past examined the factors explicitly, and hence do not provide a comprehensive understanding of the sector. The paper aspires to provide a comprehensive outlook on the sector and mitigate the existing gap.

2. Competitiveness and Competitive Advantage

The notion of "competitive advantage" cannot be ignored when it comes to the study of competitiveness. The term "competitive advantage" has become a buzz word in the world of business management and literatures pertaining to the study of business management, yet a distinguished definition is difficult to derive (Anon, 2013; Rumelt, 2003). The term was widely popularized by Porter (1985). He considers competitive advantage to be at the heart of business performance. There have been various attempts by scholars to relate this business performance to superior financial returns (Besanko, Dranove, & Shanley, 2000; Ghemawat, Collis, Pisano, & Rivkin, 1999; Peteraf, 1993). Some have also stressed on long term sustenance of economic returns (Ghemawat, Collis, Pisano, & Rivkin, 1999; Kay, 1993; Peteraf, 1993).

The study of competitive advantage has been primarily based on two viewpoints; the market based view and the resource based view. The first perspective emphasizes on the ability to create value according to the requirements of the market or industry (Hill, 1988; Porter, 1980; Porter, 1985). It argues that competitive advantage arises from value, which is derived when benefits to customers surpasses the costs of the offer in a way outperforming the competition (Porter, 1985). On the other hand, the second perspective looks into the unique competencies of a firm that provides an edge over competition (Barney, 1986; Ghemawat, 1986). When these competencies and resources of a firm are combined to generate distinctive capabilities to outperform the competition in the market, it is termed as competitive advantage, which leads to superior performance (Johnson, Whittington, Scholes, Angwin, & Regnér, 2014).

Although majority of the studies on competitive advantage have been centered on individual firms, it also has been stretched to national economies. Earlier theories of international trade illustrate that certain nations outperform other nations in trade because of differences in national factor endowments (Hill, 2011). In the attempt to examine why some countries achieve international success in certain industries, Porter (1990) studied 100 industries in 10 countries; and based on the research, he introduced "The Diamond Model of National Competitiveness." His earlier workings on competitive advantage were extended to national level through this model.

Porter (1990) claims that nations prosper in industries where the national environment favors the creation of competitive advantage. He categorized the national environment into four broad attributes: 1) Factor Conditions, 2) Demand Conditions, 3) Related and Supporting Industries, and 4) Firm Strategy, Structure, and Rivalry. These together constitute a mutually interdependent and reinforcing system, termed as the "diamond". He further argues that the diamond can be influenced by "Government" and by "Chance". It is important to note that, Porter (1990) believes the national diamond to translate into success when all four determinants of the diamond are strong enough. He argues that weaknesses in any determinant can restrain an industry from achieving competitive advantage.

However, the diamond model is not free from criticisms. Dunning (1992) opines that there is nothing original in Porter's analysis; rather the determinants stated by Porter were already recognized by various scholars. But, he acknowledges that Porter was successful in setting out a paradigm that establishes relationship between the determinants. Porter's model has limitations when applied to small and open economies (Bellak & Weiss, 1993; Rugman & D'Cruz, 1993). The diamond model overlooks the impact of globalization on production and markets (Dunning, 1993). Porter's framework is based on logical reasoning rather than scientific evidence (Ketels, 2006). Hence, the economic school has avoided Porter's notion, whereas the management school has embraced it (Smit, 2010). Nevertheless, the diamond model is a revolutionary framework that greatly enhances the understanding of competitive advantage in regards to nations (Grant, 1991). The model has had massive impact on scholarly research and policy making since its inception (Huggins & Izushi, 2015).

3. Evolution of the RMG Sector in Bangladesh: A Synopsis

RMG industry, the major source of export earnings for Bangladesh today, actually resulted from a chain of international events trailing back to the 1950s. During that period, the manufacturing of garment products migrated to Japan from Western Europe and North America, as the latter economies were moving towards hi-tech industries. As the economy of Japan progressed, the second wave started and relocated the production of garment to South Korea, Hong Kong, Singapore, and Taiwan during the 1970s. The third flow shifted the garment manufacturing to China, Malaysia, Indonesia, and Thailand followed by Bangladesh, Pakistan, Sri Lanka, and Vietnam (Ahamed, 2013; Rahman, 2004).

Though the quest for low-wages is observed to be the primary concern in these relocations, the role of Multi-Fiber Agreement (MFA) signed in 1974 cannot be overlooked (Ahamed, 2013; Rahman, 2004; Rashid, 2006). The purpose of the agreement was to safeguard local jobs in the apparel industries in Western Europe and North America by imposing quota restrictions on imports of apparels from certain countries. The companies in South Korea, Hong Kong, Singapore, and Taiwan were affected due to these restrictions (Ahamed, 2013; Rashid, 2006). However, countries termed as LDC (Least Developed Country) were not under the purview of quota restrictions; and Bangladesh being an LDC, in addition to its cheap labor, was an attractive destination for quota-hopping companies (Ahamed, 2013; Rahman, 2004; Rashid, 2006).

3.1. Initiation and Early Growth (Late 1970s to 1985)

Bangladesh entered into the league of apparel exporting nations in 1978 through a consignment of 10,000 pieces of men's shirts to France by M/s Reaz Garments Limited (Ahamed, 2013; Rashid, 2006; Yunus & Yamagata, 2012). However, the sector actually took off when South Korean company Daewoo entered into a collaborative agreement with Mr. Noorul Quader, an entrepreneur from Bangladesh to establish Desh Garments Limited (Ahamed, 2013; Rashid, 2006). Desh was the first of its kind to introduce state-of-the-art manufacturing process facilitating the mass production of garment items (Mostafa & Klepper, 2009). As part of the collaboration, 130 employees of the newly formed company were sent to Daewoo's factory in South Korea to receive training (Rashid, 2006; Yunus & Yamagata, 2012). This training is considered to be an underlying factor in the subsequent growth of the RMG sector in Bangladesh, because most of these trainees later turned into entrepreneurs and started own ventures (Mottaleb & Sonobe, 2011; Rashid, 2006; Yunus & Yamagata, 2012). Some trainee entrepreneurs chose to set up intermediary firms facilitating the networking between local manufacturers and foreign buyers, which played a critical role in the early development of the sector (Mottaleb & Sonobe, 2011).

As the sector was still in its infancy, it had to depend upon imports for necessary capital machineries, fabrics, and accessories. The factory owners managed to persuade the government to design policies favoring duty-free imports of capital machineries, bonded warehouses for duty free imports of fabrics and accessories, and back-to-back credit facilities to finance working capital (Mostafa & Klepper, 2011). Moreover, the government developed dedicated areas known as Export Processing Zones (EPZ) offering numerous benefits to promote exports and attract foreign investments in general, which brought in international apparel manufacturers (Ahamed, 2013). The BGMEA (Bangladesh Garment Manufacturers and Exporters Association) was established in 1982 with the motive of promoting RMG exports and protecting the interests of the RMG sector (Yunus & Yamagata, 2012). The sector experienced an impressive early growth and by 1984-85, the number of factories reached 632; making a total contribution of

US$ 116.2 million towards export earnings (Rashid, 2006). The exports were mainly concentrated on shirts and woven products to the US markets (Mostafa & Klepper, 2009).

3.2. The Period under Quota Restrictions (1986 to 2004)

The favorable international market condition for Bangladesh was shaken as the country was pressed into the MFA quota scheme in 1985-86 (Mostafa & Klepper, 2009; Mottaleb & Sonobe, 2011; Rashid, 2006). The remarkable growth rates faded as an outcome of the quota restrictions in the following years (Rashid, 2006). The government of Bangladesh played a pivotal role during that time by arranging for more generous quotas for Bangladesh through negotiations with the US and European countries (Rashid, 2006). As a result, the sector recovered the shakeout and once again started to make progress since 1990. There are mixed opinions regarding the imposition of quota on Bangladesh and its impact on the garment manufacturing sector. While some (Ahamed, 2013; Rashid, 2006) believe that it slowed down the real growth of the sector, others (Saxena & Wiebe, 2005; Siddiqi, 2004) hold the opinion that it facilitated the young RMG sector by safeguarding from competition.

The most important milestone for the RMG industry during the early 1990s was the rise of knitted garment products (Rashid, 2006). An advantage of the knitwear segment was that it was beyond MFA quota restrictions (Ahamed, 2013). The European Union's increasing demand for knitwear and supportive incentives from the government of Bangladesh has stimulated the growth of knitwear based RMG in Bangladesh (Ahamed, 2013).

3.3. Post MFA Success (2005 and Onwards)

The Multi-Fiber Agreement came to an end on December 31, 2004 (Joarder, Hossain, & Hakim, 2010). Prior to 2004, it was predicted that the MFA phase-out would lead to the collapse of garment sector in low income nations including Bangladesh due to low orientation towards technology, poor infrastructure, and distance from the major markets (Yamagata, 2007). Despite the concerns, the actual scenario has been quite astounding for Bangladesh. Instead of losing markets to competition, Bangladesh managed to grow its portion of the pie and extended foothold over competitors' share in both US and European markets (Joarder, Hossain, & Hakim, 2010). By 2008, its exports to the US markets reached US$ 3.44 billion from US$ 1.98 billion in 2004, and it managed to grasp 4.2% market share of the European market becoming the fourth largest supplier (Joarder, Hossain, & Hakim, 2010). The growth continued at a notable rate and by 2010, the RMG exports reached around US$ 15 billion, which constituted 13% of the nation's GDP (McKinsey & Company, 2011). Bangladesh has been the only nation apart from China and Vietnam, which gained a significant increase of exports into the US markets in spite of the MFA phase-out as well as the financial crisis of 2008 (Joarder, Hossain, & Hakim, 2010).

4. Exploring the Bangladeshi Diamond

4.1. Factor Conditions

Nations vary in their endowment of factors or resources such as land, labor, and capital (Hill, 2011). Porter (1990) categorizes these factors into five broad segments from an industry perspective: 1) human resources, 2) physical resources, 3) knowledge resources, 4) capital resources, and 5) infrastructure. He states that the mix of factor proportions varies widely from one industry to another and nations perform better in industries where the national mix of factors complements the mix sought by an industry.

The RMG sector is highly inclined towards labor based assembling as the softness of fabric makes automation very challenging (Kabeer & Mahmud, 2004). Being a labor intensive industry, human resources remain to be a vital factor for the sector. The garment manufacturing involves relatively low skill tasks (Acevedo & Robertson, 2016), eliminating the need for workers with high or medium skills. Thus, the preferred situation for the industry is easy access to low-cost and less skilled labor force. Unless and until the industry integrates backwards, there is no significant need for physical resources (i.e. cotton or other fibers to produce yarn and fabric) and also knowledge resources (i.e. textile engineering, mechanical engineering, chemical engineering). Though, designing can be considered as knowledge resource, but the task is carried out by in-house designers of global fashion brands or outsourced to designing firms rather than assigning it to manufacturers. The garment factories have almost nothing to offer when it comes to designing (Kabeer & Mahmud, 2004). The capital requisite for the industry is low and a factory can be started with several sewing machines (Seijts, 2006). Therefore, a national environment with lower capital resources is not a major concern. Infrastructure is an important factor for any industry and RMG is not an exception. The subsequent analysis only involves "human resources" and "infrastructure" as these two factors has been identified as vital for the sector.

Bangladesh had been a low income nation since its birth. The country received low middle income status in 2014 (The World Bank, 2016). The nation's GNI per capita crossed the US$ 500 mark in 2004 (The World Bank, 2020). Almost half of its population was living below the poverty line even in verge of the new millennium (The World Bank, 2020). Although the unemployment rate of Bangladesh has been below 5% since 1991 (The World Bank, 2019), the scenario changes when underemployment is considered. According to BBS (2011), the national underemployment rate stood at 20.31% in 2010. When a person is employed but works less than 35 hours per week, that person is said to be underemployed (BBS, 2011). As per the recent population and housing census published by BBS (2012), the national literacy rate is 56.09%, ranging from 69.58% in urban areas to 52.82% in rural ones. However, only 39% of this literate populace have attained high school education or beyond. Though the statistics for underemployment and education are quite recent, but it provides an overview. Moreover if this is the scenario at present after economic progress and social development, the picture of the past is comprehensible. The economic condition and underemployment has resulted in a large pool of low-cost labor, which is highly desirable for the sector. Besides, the education scenario resulted in a labor pool with low or semi-skills, which converges with the need of the sector.

Bangladesh, like most nations of the world, represents male dominated society. In addition, the conservative sentiment of the society restricted female participation in the mainstream economy. Instead, women were encouraged to undertake the responsibility of household chores and handicrafts, though the scenario has been changing towards a more liberal view in recent times. This conservative approach and women involvement in handicrafts enabled the development of sewing and embroidery skills among women. Hence, there was a ready pool of semi-skilled workers. However, bringing this workforce to the factory floors was very challenging. Ahmed (2004) illustrates that the RMG entrepreneurs were viewed as heroes in their locality, and they convinced the male guardians within their locality by ensuring that the dignity of the female members would be secured in the factory floors. He further states that such steps by the entrepreneurs led towards the creation of "socially acceptable" work for women. At present, women account for four-fifths of the total RMG workforce (BGMEA, 2016). Female participation in the sector has been a blessing for the sector as they tend to settle for lower wages than their male counterparts (Rashid, 2006). Thus, it is quite evident that the national human resources factor facilitated the creation of competitiveness for the sector.

Bangladesh lacks adequate infrastructure facilities, which has been a bottleneck for almost all businesses in the country. According to World Economic Forum (2019), Bangladesh ranks 114 among 141 countries in terms of infrastructure quality. Power crisis stands on top of the infrastructural concerns. There exists huge gap in demand and supply of power resulting in frequent power outages, which significantly hampers productivity. The garment factories reported an average of 61 power outages per month with a typical power outage lasting for 1.1 hours on average and resulting in an average loss of 4.7% of annual sales (The World Bank, 2013). Commuting remains the second major infrastructural concern. Bangladesh ranks at 108 for road quality (World Economic Forum, 2019). The nation lacks sufficient roads and highways. The existing roads and highways get deteriorated every year during the monsoon due to poor drainage system. However, the road quality in and around the capital city of Dhaka has been comparatively better. The Dhaka-Chittagong highway, being the country's major highway, has been comparatively well maintained. More than 60% of the garment factories are located in Dhaka, 17% in Gazipur, and 8% in Narayanganj (Choe, Nazem, Roberts, Samarappuli, & Singh, 2011). Both Gazipur and Narayanganj are within 50 kilometers proximity from Dhaka. As the RMG sector is clustered around Dhaka and uses the Dhaka-Chittagong highway for logistics, it has been relatively well off. The port facility is another important infrastructural feature. Bangladesh ranks at 92 for quality of port infrastructure (World Economic Forum, 2019). Although port facilities are ranked better compared to other infrastructural facilities, it is not competitive enough at global standards. Chittagong port, the major seaport of the country, has one of the longest turnaround times in the world and as a result the lead time for the RMG sector gets delayed by almost two weeks (Rahman & Anwar, 2006). Henceforth, the competitiveness of the sector has been seriously disturbed due to port infrastructure. It is fairly apparent from the discussion that the national infrastructure factor has hindered the competitiveness of the RMG sector.

4.2. Demand Conditions

In addressing this feature of the diamond framework, Porter (1990) reasons that the home demand conditions for an industry's product or service can lead to the creation of national competitive advantage. While he acknowledges that the home market size and its growth rate play pivotal role in shaping an industry, he strongly argues that the competitive advantage actually derives from sophisticated and demanding customers. They build pressures on local businesses to continuously innovate and upgrade the standards in terms of quality, features, and service resulting in globally competitive businesses.

The traditional dress for men in Bangladesh is lungi, panjabi and fatuwa. For women, it is saree and salwar kameez. Lungi and saree are produced by the handloom industry, which remains to be the largest cottage as well as rural industry in Bangladesh (Rahman & Anwar, 2006). Lungi and saree do not require sewing (Kabeer & Mahmud, 2004), hence eliminating the need for garment manufacturing units. Panjabi, fatuwa and salwar kameez are usually handcrafted due to their unique designs. Home based women workers involved in traditional embroidery serve the handcrafted apparel segment (Bajaj, 1999). Though men in Bangladesh have been adopting western wear with the rise in urbanization, women still prefer traditional dresses.

People in Bangladesh used to buy unstitched clothes and get outfits tailored by local tailoring shops, prior to the shift towards ready-made clothing that accelerated during early 1990s (Islam, Islam, Azim, Anwar, & Uddin, 2014). Hence, it can be presumed that this shift instigated the RMG sector in catering the local market. On the other hand, the export oriented RMG of the country dates back to the late 1970s. Therefore, there is very little scope that the home demand conditions led towards the creation of Bangladesh's competitive advantage in the RMG sector. The apparel hub of Keraniganj, which is home to some 8000 small factories, fulfils about 70% of the local demand for RMG products (Saha, 2014). Keraniganj began to flourish as an apparel hub relying upon the leftover fabrics from the export oriented RMG factories (CBSG, 2015). This also strengthens the notion that the global competitiveness of Bangladesh's RMG sector did not derive from home demand conditions.

Bangladesh was considered a low income nation prior to 2014, when it moved to the lower middle income group (The World Bank, 2016). According to the last household income and expenditure survey, 31.5% of the population lives below the poverty line (The World Bank, 2011). This means that almost one-third residents are unable to meet the daily basic needs. Hence, expecting sophistication and demanding attitude from such customer base is way too ambitious. Moreover, the average household expenditure on clothing is BDT 1081 per month in Dhaka; BDT 883 per month in other urban areas; and BDT 710 per month in rural areas (PPRC, 2016). At the prevalent rate of US$ 1 = BDT 85, the range stretches from US$ 8.35 to US$ 12.72 per month. Considering this scenario at present, it is not difficult to estimate the poor spending pattern that existed in the past. This puts forward another strong ground to contend that the competitive advantage of Bangladesh's RMG sector did not result in from home demand conditions.

4.3. Related and Supporting Industries

Porter (1990) stresses the importance of related and supporting industries by stating that the presence of globally competitive supplier industries or related industries contributes towards the formation of a competitive industry. Having competitive base in supplier industries signifies potential advantage in manufacturing industries. He further states that such supplier industries allow efficient, early, rapid, and preferential access to inputs. He remarks that similar benefits can be derived from related industries, which are industries that share some element of commonality. Related industries often share activities and sometimes even form alliances.

The industries that contribute as supporting industries toward the RMG sector are primary textiles industry (suppliers of yarn and fabric), garment and textile machinery industry, and accessories industry (suppliers of zippers, buttons, labels, packaging etc.). Industries such as home textiles (manufacturers of bedspreads, curtains, cushion covers etc.) and synthetic fibers constitute as related industries.

At present, there are 430 spinning mills and 802 weaving mills in the country with annual production capacity of 2943 million kilograms of yarn and 3707 million meters of fabric respectively (Mahmud, 2019). There were 44 spinning mills with annual production capacity of 21.7 million kilograms of yarn in 1991-92, and weaving mills produced 200 million meters of fabric in 1996-97 (Quasem, 2002). Local suppliers can now satisfy 90% of the demand for knitwear and 40% of the demand for woven wear (Mahmud, 2019). Only 5% of the fabric demanded by the export oriented RMG factories was met by the primary textiles industry during 1993-94 and it increased to 19% by 1998-99 (Quasem, 2002). These statistics suggest that the growth of primary textiles industry was instigated by the rising demand for fabric and yarn in the RMG sector. Bangladesh is completely reliant upon imports for garment and textile machineries as well as spare parts (Haque, 2008). The accessories industry has grown significantly from 17 firms in 1991 to 1733 firms in 2019 (BGAPMEA, 2020). Previously reliant on imports, the industry has successfully attained self-sufficiency and has even started to earn by exporting (Khan & Molla, 2014). The discussion suggests that rather than the supplier industries contributing towards the development of RMG sector, it was the RMG sector that facilitated the growth of supplier industries, particularly primary textiles and accessories.

With the progress of primary textiles industry, the home textiles started to create its mark. Home textiles exports in 2018-19 reached US$ 851.72 million (Mamun, 2020) against US$ 75.6 million in 2001-02 (Fair Wear Foundation, 2006). It can be argued that the RMG sector has indirectly resulted in the growth of home textiles industry as the RMG sector led to the development of primary textiles industry, which in turn assisted home textiles to advance. Bangladesh has been dependent upon imports for synthetic fibers and the first fiber plant of the country is expected to meet 40% of the total national demand once fully operational (Donaldson, 2015). It is quite evident that the RMG sector's competitiveness did not result from any of the related industries.

4.4. Firm Strategy, Structure, and Rivalry

Rivalry is the most critical driver of national competitive advantage in an industry (Porter, 1990). Strong domestic rivalry prompts businesses to go abroad as their growth is confined in the local markets. In addition, strong domestic rivalry also persuades businesses to increase efficiency, cut down costs, improve quality, and enhance innovation, enabling them to achieve global standards or even create new ones. Furthermore, he points out to national differences in management ideologies, and states that strategy formulation and firm structure are profoundly influenced by such ideologies.

The local market for ready-made wear developed almost a decade after Bangladesh started exporting apparels to global markets as observed in "Demand Conditions", which provides strong ground to contend that domestic rivalry had no role to play in the emergence of the RMG sector. Besides, the companies serving the global markets have been joining the local competition recently (Mirdha, 2015). In addition, no formal export linkage could be found for Keraniganj apparel hub (CBSG, 2015), which meets majority of the domestic RMG demand. Hence, it is very much evident that the RMG sector did not rise out of native competition.

As of 2019, there are 4621 export oriented garment factories in Bangladesh (BGMEA, 2020). The factories in Bangladesh tend to be much larger than those in other garment producing countries (Fair Wear Foundation, 2013). This is further supported by McKinsey & Company's (2013) study, which illustrates that countries having more factories, such as India (11,000 factories) and Pakistan (7500 factories), lag behind Bangladesh in apparel exports. As a result, the production capacity is quite high, providing Bangladesh strong foot hold in the global arena.

The RMG industry in Bangladesh is almost exclusive to the private sector and the majority of the factories are owned by native entrepreneurs. However when it comes to large factories, foreign firms dominate over the local ones. The largest 25 factories outside EPZs are owned by foreigners (UNCTAD, 2012). The presence of foreign firms assisted in several ways. First, the foreign firms possessed better understanding of international marketplace due to their enhanced global presence and experience with diverse countries. Besides, they had better relationship networks in place. Their presence also drew the attention of global buyers in considering Bangladesh as a sourcing destination. Moreover, the foreign companies created a benchmark in terms of quality and efficiency related to both production and management, which has driven the industry towards global success. Finally, they helped the industry to integrate backwards by encouraging their global suppliers to set up facilities in Bangladesh.

4.5. The Role of Government and Chance Events

Although the government plays a vital role in the national environment, Porter (1990) prefers not to consider government as a determinant of national competitive advantage. Rather, he distinguishes government to be an influencing force on the national diamond. He contends that the government does so by means of policies, regulations and mandates, which either favors the national diamond or challenges it. He considers chance as another influencing force on the national diamond, and claims that it can shift the competitive position in an industry. He identifies issues such as inventions, technological discontinuities, wars, political decisions by foreign governments, and shifts in international financial markets as chance.

The government has played a pivotal role in shaping the competitiveness of the RMG sector (Ahamed, 2013; Ahmed, Greenleaf, & Sacks, 2014; Rashid, 2006; Yunus & Yamagata, 2012). In the dawn of the sector, subsidized tariffs on imports of capital machineries and raw materials (Yunus & Yamagata, 2012) allowed the sector to develop its industrial infrastructure and remain price competitive. The special bonded warehouse facilities for duty free imports of fabrics and accessories enhanced the competitiveness of the sector by pulling down operations costs (Ahmed, Greenleaf, & Sacks, 2014; Rashid, 2006). Besides, the back-to-back credit facilities aided in the financing of working capital to the early entrants (Ahmed, Greenleaf, & Sacks, 2014; Rashid, 2006). The formation of EPZs attracted foreign direct investments and led to the creation of RMG clusters (Ahamed, 2013). However, Haider (2007) argues that the EPZs were set up to boost export based industrialization rather than supporting the RMG sector in particular.

Chance events have been a critical influencing force behind the growth of the sector. The industry's beginning was driven by chance as MFA quota restrictions on countries such as South Korea, Hong Kong, Singapore, and Taiwan pushed the businesses in those countries to relocate their productions to nearby LDCs. Bangladesh and other Asian LDCs were benefitted due to such relocations.

5. Conclusion

The research reveals that among the national factor conditions, human resources have significantly contributed towards the competitiveness of the sector, whereas infrastructure has actually been an obstacle. Quite interestingly the RMG sector instigated the growth of supplier and related industries, instead of these stimulating the growth of the RMG sector. Moreover, the home market for RMG products boosted almost a decade after Bangladesh had entered the global market. Hence, local competition played no role in the achievement of its competitiveness. However, firm size and management strategy have stimulated the growth of the sector to a fair extent.

Even though all four determinants of the national diamond were not favorable, the RMG sector of Bangladesh still succeeded to attain competitive edge in the global arena. Apart from the significant role played by human resources factor, government support and chance events have been strong influencing forces behind this competitiveness. Therefore, this study puts forward the viewpoint that a nation can achieve competitive advantage in a sector even if all the elements of the national diamond are not in favor. The implication of this perspective can be extended to strategy formulation at national levels. Less developed economies can take this as a case in creating their own competitive industries.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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