



The Ins and Outs of the Leather Industry in Bangladesh

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Abstract

The leather industry in Bangladesh is growing thanks to the country's expanding economic prosperity. Hides and skins, which are by-products of the meat and meat products sector, are often used as raw materials in the leather business. This research aims to offer a complete picture of Bangladesh's leather industry's performance, products, tanning, investment, and environmental impact. This research focused on the technique that will be utilized to gather sufficient data to support this study, as well as the way by which it will be carried out. This study is based upon the literature survey for exploring particular aspects of the leather industry of Bangladesh. The amount of information extracted from several studies based on the objective is related to Bangladesh's leather industry. This study has given a clear picture of the leather industry of Bangladesh which helps government and leather-oriented organizations to take further steps and decision making. This research was limited to investigate only the industry's performance, products, tanning, investment, and environmental impact. But some other facts affect the leather industry of Bangladesh. The leather industry's performance has improved over time, but it is still not adequate. This research aims to offer a complete picture of Bangladesh's leather industry's performance, products, tanning, investment, and environmental impact.

Introduction

Bangladesh's leather industry includes tanning and finishing, footwear and footwear components, leather accessories, and leather goods. As a result of its self-sufficiency in raw materials, high-quality products, and market access facilities, as well as the growing demand for leather and leather products, abundant and competitive labor costs, and preferred sourcing by several international brands, the leather sector has become a popular investment destination for both domestic and foreign investors (Bangladesh Foreign Trade Institute 2016). This industry exports to over 53 nations, including China, France, the United States, Germany, Italy, South Korea, the Netherlands, and Vietnam (Hossain et al., 2016; LFMEAB 2017). Hazaribagh, Bangladesh's biggest tanning industrial region, was located on the Buriganga River in the southwestern section of the capital city of Dhaka (Shaikh et al., 2017). All tanneries have been relocated to the Savar sub-district, which is just outside of Dhaka.

The leather industry's primary goal is to turn animal hides (large animal skins) or skins (small animal skins) into a physically and chemically stable material via a series of chemical and mechanical procedures. Bangladesh's growing economy fosters the expansion of the leather industry (Shaikh et al., 2017). The Government of Bangladesh's Seventh Five-Year Plan predicts at least \$5 billion in export income from leather, leather items, and leather footwear by FY2021 to widen its markets and increase export volume (Bliss, 2017).

The exquisite color, homogeneous fiber structure, silky feel, and natural texture of Bangladesh leather are well-known across the globe (Paul et al., 2013). One of the significant benefits of

Bangladesh's leather industry is that around 85 per cent of total raw materials are obtained from inside the country and cheap labor costs. However, the rising leather output will unavoidably need better backward supply chain assistance (Razzaque et al., 2018).

History of the Leather Industry of Bangladesh

Bangladesh's leather industry is one of the country's oldest industrial industries. In 1960, Punjabis in Pakistan established tanneries in Hazaribagh (Shaikh et al., 2017). Ranada Prasad Shaha, a well-known entrepreneur, founded the leather business in Narayanganj before the Second World War broke out in 1940. Following the end of British rule in 1947, a surge in demand for tanneries arose in this portion of East Bengal. In Hazaribagh, a leather college was founded in 1949. By 1965, Hazaribagh had more than 30 tanneries operating due to market demand and agglomeration effects. Until the 1980s, when the tanneries increased crust leather manufacturing, the tanneries produced wet blue and chrome tanned leather (Razzaque et al., 2018).

Bangladesh's leather industry manufactures various leather footwear and other leather goods such as clothing, ladies' bags, luggage, wallets, and other high-end items. The processing of raw hides and skins into some crust, completed, or semi-processed (wet-blue) leather, on the other hand, has dominated the industry in Bangladesh, accounting for up to 85 per cent of total production (Ahamed 2015a).

Since its start, the Hazaribagh tannery business has experienced several challenges. The abandoned industrial sites were auctioned indiscriminately after Bangladesh's independence in 1971. With the growth of Dhaka, the Hazaribagh region was eventually brought within reach of residential neighborhoods (Razzaque et al., 2018). Even though Hazaribagh was classified as an industrial district, many new owners started to utilize the plots as homes. There were as many as 220 tanneries in operation in Hazaribagh until their recent migration to Savar (about mid-2017). Export-oriented tanneries accounted for up to 76 per cent of all tanneries (Razzaque et al., 2018). Immediately after Bangladesh's independence, the government seized control of the tannery industry, which had been relinquished by the fleeing non-Bengali company owners. However, the government had little success in integrating them into the public sector. Until 1980-81, processed leather made entirely of wet blue leather was exported (Paul et al. 2013). Following government support measures to increase the sector's degree of value addition in 1981, new private interest in the leather sector arose.

Today, there are more than 30 automated footwear companies, the majority of which manufacture leather footwear for export. In the domestic market, there are a vast number of semi-automated and non-automated footwear units. About 15 or 20 enterprises manufacture high-quality leather items that are continuously in great demand when exported. The present footwear manufacturers will most likely export shoes in the following years (Bangladesh Foreign Trade Institute 2016). Bangladesh's High Court ordered the factories to be relocated in 2001. The Savar Tannery Estate plan was approved in 2002. In 2003, the government signed the first Memorandum of Understanding (MOU) with the Bangladesh Tanneries Association (BTA) and Bangladesh Finished Leather and Leather Footwear Exporters Association (BFLLEA) to assist the transfer of manufacturing units (Ahmed 2010). However, the Tannery Estate Dhaka (TED) did not begin operations until April 2017 (Harris, 2016).

On a 200-acre complex, the Tannery State of Dhaka has 205 dwelling plots and 155 industrial units. It also includes a Central Effluent Treatment Plant (CETP), a central dumping yard, a 22.8 million liter per day water treatment plant, a Sludge Power Generation System (SPGS), a

Common Chrome Recovery Unit (CCRU), and a 5 million liter per day sewage treatment plant (Razzaque et al., 2018).

The leather industry is a product-based agriculture business. Leather manufacture is a hazy and time-consuming process that relies on a relative outflow of rawhide material and chemicals connected to rising crude oil prices (Ali et al., 2015). Bangladesh accounts for around 3.0% of the global leather and leather goods market by volume, with 1.8 per cent of the world's cattle and 3.7 per cent of the world's goat stock (Hong 2018). Bangladesh's leather industry may be divided into three categories: footwear, leather, and leather goods (i.e. handbags, carry bags, wallets, etc.). In terms of value creation, the country's footwear industry has emerged as the most significant (Paul et al., 2013).

There are 220 tanneries, 3500 small and medium-sized businesses (SMEs), and 90 big businesses in the leather industry. It offers untapped potential for job creation, investment, and entrepreneurship. The leather goods industries employ around 850,000 people directly and indirectly, with women accounting for 53% of the workforce (Ali et al., 2015; Bangladesh Foreign Trade Institute, 2016; Bliss, 2017). The leather industry is a well-known industry. The footwear sector has been selected as an area of intense attention, and the business has become an export emphasis. Despite its enormous promise, this rapidly expanding industry has been chastised for environmental and health concerns (Hasnat, Rahman, and Pasha, 2013). The production of leather and associated goods has increased by around 50% in the last ten years, and the nation currently has a market share of roughly 2-3% of world leather production. This potential for expansion brings both possibilities and concerns in terms of the working conditions of employees in the country's tanning and leather sectors.

Export Performance of Leather Industry

Bangladesh's leather industry is a significant manufacturing industry. The market for leading and leather items is rapidly increasing over the globe. As a consequence, the potential of the industry in the Bangladeshi economy is being explored on a regular basis (United Nations Industrial Development Organization, 2010). There are three subsectors in the leather industry: finished leather (tanning leather), leather footwear, and leather products.

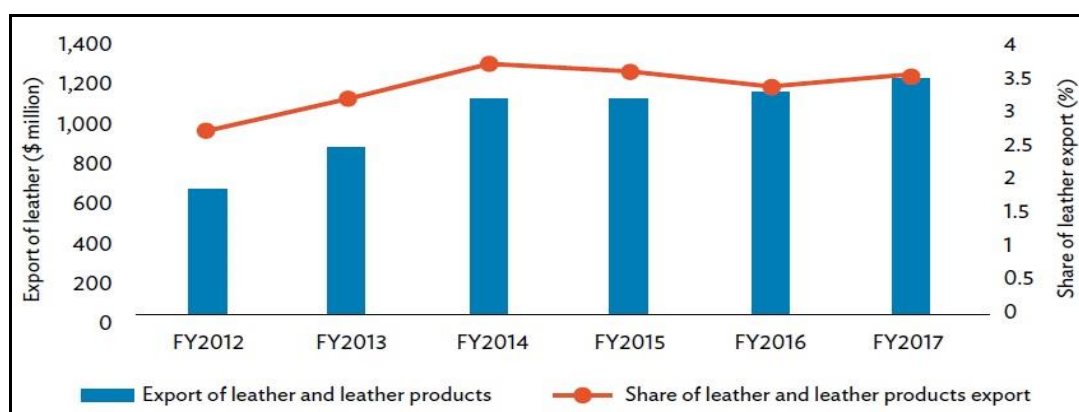


Figure 1 . Growth in Exports of Leather and Leather Products of Bangladesh.

Source: (LFMEAB 2017)

In Financial Year (FY) 2017, the leather industry accounted for 3.5% of Bangladesh's annual exports of \$1.2 billion, or about 0.6% of the global export market. The export-oriented leather sector's contribution to Gross Domestic Product (GDP) is estimated to be 0.35 per cent (Razzaque et al., 2018).

Crushed leather, polished leather, leather clothing, and footwear make up around 95 per cent of Bangladesh's leather and leather items. Germany, Italy, France, the Netherlands, Spain, Russia, Brazil, Japan, China, Singapore, and Taiwan are the top destinations for leather and leather items. These exports have an average value addition of 85% local and 15% international. The export of completed items such as shoes, slippers, leather jackets, hand gloves, bags, purses, wallets, and belts earns a significant amount of money, allowing leather items to enter new markets (Ahamed, 2015b).

Bangladesh's export basket is primarily reliant on a single product: readymade clothes. With roughly four million employees and 81.9 per cent of overall export profits, a single industry controls a large portion of the country's destiny. The garment industry's high export concentration might leave the economy sensitive to shocks. Diversification of exports via the leather industry also boosts employment (Howlader, 2016). Following RMG, the leather industry accounts for more than 3% of the country's overall exports. Although the leather business is Bangladesh's second-biggest export industry, its export proportion is much smaller than RMG.

General Classification of Leather Goods

There is a wide variety of leather goods produced in Bangladesh (Ahamed 2015a). The main groups are below:

Small leather goods or Fancy leather goods 2. Medium leather goods 3. Heavy leather goods

Small Leather Goods

Purses, wallets, critical cases, passport cases, note cases, card cases, cigarette and cigar cases, lighter cases, and other small leather goods, sometimes known as personal leather goods, are often carried in pockets or handbags. The vast majority of these products are built without the use of any internal stiffeners or reinforcements of any kind. The leather of a thickness of 0.5 mm to 1.00 mm is required for these items. Cow softy, goat glaze, sheep, calfskin, and other hides and skins are often utilized to produce tiny leather products (Ahamed, 2015a).

Medium Leather Goods

Footwear, handbags, shoulder bags, document cases, attach cases, and other items are included. These bags are constructed of calf, goat, sheep, and exotic skins and hides that are completed in various colors to give them a nice look and feel of refinement and modernity. Medium leather items are made from leather with a thickness of 0.8 mm to 1.2 mm. Medium leather items are often made from cow softy, dry milled, cow napa, sheep napa, goat, and buff softy leather (Ahamed, 2015a).

Heavy Leather Goods

These are often constructed from tough and durable cow and buffalo skins. The skins have unique surface grain patterns and come in full hide sizes ranging from 20 to 30 square feet. Heavy leather items are made from cow and buff skins with a thickness of 1 to 1.5 mm. Box sides, Katti Leather, Split Leather, Cow Upper, Upholstery, Buff Softy, and other leather products are used to make hefty leather products (Ahamed, 2015a).

Livestock of Bangladesh

Cow and buffalo hide and goat and sheepskins are the primary raw materials used in this sector. Bangladesh is blessed with abundant greenery, which provides comfort to a vast cattle population (Bushra 2017). Black goatskin from Kushtia, Bangladesh, is known for its fine grain

structure and flexible strength, according to (Ali et al. 2015). The compassionate and customized treatment of domestic animals in this nation also contributes to the excellent quality of the hide.

Animals were slain during the annual Muslim celebration of Eid-ul Azha provide around 40% of the supply of hiding and skin (Hasan, 2012). Furthermore, meat is the most popular dish in Bangladesh, where festivals and wedding rituals are always celebrated with meat-eating, allowing for a plentiful supply of hiding and skin. In Bangladesh, there is no scientific approach to animal husbandry. In rural areas, livestock is grazed in the open by farmers or village inhabitants who depend on them for income. Recently, several small businesses have formed that acquire fattening calves from the countryside. The animals are fattened and then sold at religious holidays to earn the highest prices (Arbeid, 2017).

Apart from bovine, buffalo, goat, and sheepskins, many kangaroo skins (pickled condition/wet-blue) are imported from Australia and completed in Bangladesh. Kangaroo leather is used to make shoes for export, mainly to Japan (Paul et al., 2013). Some ostrich leather is also imported from Australia to create high-end purses and wallets for re-sale in the country (Ahamed, 2015a). Chrome tans all leather made from lighter-weight cow skins and skin from sheep, goats, and pigs (Bushra, 2017).

Leather Footwear

Bangladesh's footwear industry is expanding and one of the country's leading manufacturing industries. It is one of the world's top manufacturing sectors regarding raw materials, geographical location, and labor force. It is very conducive to the expansion of the footwear industry. The need for processed footwear is fast rising in today's busy world, and as a result, the footwear business in Bangladesh, like in other nations, seems to be swiftly expanding (Mia, 2017).

The footwear business is regarded as the growth engine for the overall leather industry. The footwear category accounted for the most considerable leather and leather goods exports (Exim Bank, 2015). The shoe factories are either joint ventures or partnerships with foreign corporations, most of which are from Italy, with exports mainly to the EU. Buyers provide their designs to the manufacturers and their leather needs, and the manufacturers then complete the order. There is essentially no indigenous product design or development. The producers get their raw materials locally or internationally, depending on the needs of the consumers (Arbeid, 2017).

Another significant advantage that Bangladesh has over its rivals is the availability of low-cost labor. The leather footwear business is a labor-intensive business ideally suited to Bangladesh because of the inflow of inexpensive labor. Furthermore, Bangladeshi labor has an intrinsic sense of artistry, which is critical for the country's footwear makers (Paul et al., 2013). Footwear manufacturers in the national pride themselves on their capacity to react swiftly to consumer enquiries, provide competitive rates, high-quality goods, and timely order fulfilment. Among the main importing countries, Bangladesh's leather industry benefits from the Generalized System of Preferences (GSP), which allows it to compete more effectively. The GSP is a preferential tariff regime that exempts certain countries from paying tariffs. Exporting leather footwear goods from Bangladesh is cheaper and more lucrative than shipping from other nations since Bangladesh obtains tariff concessions under the GSP (Paul et al., 2013).

Most leather shoe pairs are made using a standard procedure known as the Goodyear Welt process. The Goodyear welt technique, named after the inventor who invented the initial machine to replace the hand-stitched approach, is a conventional technique for making leather

shoes that involves nine stages (Khan, 2015). Each stage consists of nine steps: cutting and sewing; pulling over; chain stitching; out sewing; edge grinding; applying the coating; adding finishing touches; and branding (Khan, 2015).

Another Leather Goods

Bangladesh has a considerable number of leather products production facilities. Belts, purses, clothes, and tiny leather products such as tablet and phone covers, portfolios, key rings, and so on are among the items available (Arbeid, 2017). Buyers provide the manufacturers with their designs and leather specifications, and the manufacturers then carry out the order. There is essentially no indigenous product design or development. The producers get their raw materials locally or internationally, depending on the needs of the consumers (Arbeid, 2017). The raw materials used by leather goods manufacturers are mostly finished leather and lining leather, all of which are sourced locally (Ahamed, 2015a).

Bangladeshi leather items are exported to Germany, China, Sweden, the United States, the European Union, Spain, Italy, France, the United Kingdom, and the United Arab Emirates, among other countries. In addition, prospective importers of Bangladeshi leather products include Japan, India, Nepal, and Australia. International companies such as Adidas, Aldo, Timberland, Marks & Spencer, Steve Madden, Esprit, Woodland, ABC Mart, Nike, and K-Mart Sears, among others, are significant importers of Bangladeshi leather products and footwear (Bangladesh Foreign Trade Institute, 2016).

Tanning

In most underdeveloped nations, tanning activities are carried out in small to medium-sized semi-automated facilities that are typically clustered together outside residential areas (Gupta & Tamra, 2007). Tanners working in such businesses lack formal education as well as a thorough understanding of the complexities of leather manufacturing and the need of environmental preservation in their profession. Waste technologies, for example, need more highly trained employees and tighter technical control than traditional processing. As a result, one of the most significant impediments is a shortage of appropriately qualified personnel at all levels (Mokhothu-ogolla, 2013).

Cattle hides and skins are a significant raw material source for leather, which is a by-product of the meat business. Tanned leather is the main product of the tanning industry, and it is further processed by value-added businesses such as footwear, clothing, furniture, and car manufacturers. Processing the skins and hides of animals, primarily cattle, to generate leather is known as tanning. Small to medium-sized family companies dominated the tanning industry in the past. However, as the demand for tanned leather and finished leather items grew, tanning procedures changed, and more prominent companies in the sector emerged.

Tanning Process

The tanning process converts raw animal hides and skins into a stable commercial product known as "leather." When card hides and skins arrive at a tannery, they are trimmed to eliminate any undesired elements to make leather. The soaking, liming, fleshing, de-liming, bating, degreasing and pickling operations are then carried out to prepare the tanning environment (Hasnat, Rahman, and Pasha, 2013). Crust leathers are made from damp blue leathers. Crust leather is used as a raw material in the last process to make finished leather. With one of the world's most significant cattle herds, the local value-added in finished leather is estimated to be between 80 and 95 per cent (Razzaque et al., 2018).

Tanneries perform various procedures, and some also provide additional services such as dyeing, coating, bleaching, and weaving skins (Bliss, 2017). In the tanning process, animals' skins are treated to generate leather. Chrome tanning has been the most popular process of producing leather for almost a century. Chromium used in leather tanning affects the hydrosphere, atmosphere, lithosphere, and biodiversity without water treatment plants and sustainable management strategies (Razzaque et al., 2018).

Supply Chain of Leather industry in Bangladesh

Traditional Supply Chain Management (SCM) techniques in the Bangladeshi leather processing sector must be more sustainable (Moktadir et al., 2018). Bangladesh's livestock population is a valuable source of raw materials for adding value to products (Strasser et al., 2013).

Every year, millions of bovine and ovine animals are killed in Bangladesh at Eid-ul-Azha, the second most significant Muslim holiday, to provide the leather industry with raw hides and skins (Strasser et al., 2013). The raw hides and skins are collected in a pyramid arrangement. Collectors buy the unsalted hides and skins that butchers manufacture. Collectors sell the hides to merchants, who salt the raw materials before selling them to tanneries. The more distant rawhides are produced from tanneries, the more merchants get engaged, and the larger the number of traded commodities rises (Arbeid, 2017). Bangladesh's leather market's whole supply chain mechanism goes through five phases (Bliss, 2017; Bushra, 2017). These are including raw leather collectors, leather merchants, producers, marketing and sales, consumption by local and overseas buyers.

It's in the first of these that local leather collectors go out and gather raw leathers from butchers, cattle owners, and other dispersed and individual leather suppliers. In this case, the collectors are a separate entity with their own financial resources. Leathers are usually purchased by collectors from concentrated regions, such as small villages, where they are purchased from local butchers. They preserve the raw leather by soaking it in salt and storing it in a shed outside their home. They then sell the raw leather they have gathered to the merchants who have purchased it.

Tannery owners then use tanning to keep the leather from deteriorating. The tanning procedure is carried out here, and the leather is conserved for export. The marketing and exporting are done via agents in the fourth and fifth stages. When the agent contacts the local tannery owner with the requested consignment, the tannery begins processing the leather following the order. Foreign purchasers, solicited by buyers' agents, are the final customers (Bushra 2017).

Dark side of Bangladesh's Leather Industry

There are some dark incidents of Bangladesh Leather industry; these are depicted here (Bliss, 2017). Water Pollution – Discoloration of water and toxic chemicals. This include (1) One ton of hide leads to; (2) 20m³ – 80 m³ of wastewater; (3) chromium levels of 100 – 400mg/L; (4) Sulphide levels of 200 –800mg/L; (5) high levels of fat; (6) pathogen contamination; (7) Water contamination is caused by runoff from feedlots; (8) Water quantity is a problem because of the huge amounts of water used in the manufacturing process; (9)the exposure to hazardous chemicals used in the processing and dyeing of leather results in the death of workers and members of the community; (10) Soil Pollution – flesh, hairs, waste; (11) Air Pollution – ammonia gas, sulphuric hydro gas; (12) Biodiversity Decline – cancer and deaths throughout the food chain; (13) Waste – 600kg of waste for each ton of wet salted hides; (14) Chemicals – heavy use of chemicals in the tanning process (chromium, formic acid, mercury); (15) Chrome tanning produces significant amounts of contamination; chrome tanning accounts for

90 percent of all leather produced. Water treatment plants are put under stress by the tanning process.

Government's Attempts

The government is establishing a distinct Leather Zone, which would relocate current manufacturing locations to a more structured location. The leather and leather footwear industry are a top priority area for Bangladesh, according to the (Bangladesh Export Policy 2015) this includes Cash Assistance, Project loan at reduced interest rates on a priority basis, Rebate of the income tax, Export credit at lower interest rates and on soft terms, Air transportation facilities on a priority basis, Duty drawback and bond facilities, Duty-free import of equipment for setting up compliant industry, Possible financial benefits or subsidies consistent with WTO agreement on agriculture, and agreement on subsidies and countervailing measures, including concessionary rates for utility services such as electricity, water and gas.

Short Overview: Leather Industry in Bangladesh

Bangladesh's leather industry possesses the following characteristics (Bliss, 2017; LFMEAB, 2017; Razzaque et al., 2018). The characteristics involves 110 export-oriented factories manufacture leather footwear; 3500 leather related firms (micro, small, and medium); including 110 large firms; In leather industry direct and indirectly employed 850,000 people (Hong 2018; Razzaque et al., 2018); Women account for 53 percent of the workforce; Cows provide 56% of the leather, with goats and buffalo providing 30% and buffalo providing 5%, respectively; Bata, Hugo Boss, Armani, Timberland, and Hush Puppies are just a few of the companies who get their leather from Bangladesh; In order to satisfy domestic demand, just 15 percent to 18 percent of total leather supply are needed; 76 percent of tanneries are focused on exporting their products; Apex Footwear is the world's biggest footwear exporting business by sales volume; Shoes, purses, wallets, belts, and finished leather are among the goods that are exported; China, Vietnam, and Brazil are three of the world's largest exporters of leather. As a result of high labor costs in these countries, leather output is declining. For example, labor costs in Bangladesh are one-fifth of those in China and one-twelfth of those in India. Because of Bangladesh's cheap labor costs and plenty of manpower, this advantage presents enormous possibilities for the country's leather exports to grow significantly. It is the thrust sector accounted for by the Government of Bangladesh; Contribution in GDP 0.35% (2018); In GDP, the contribution place is 3rd (2018).

Conclusion

There is a need to investigate this business, and its potential to create more job opportunities for the country. Leather goods businesses and their development are highly reliant on the potential and growth of this business. The leather industry is one of Bangladesh's most well-known businesses, contributing significantly to the country's economy and earning a positive image across the globe. Bangladesh's leather sector provides exports, employment, and economic progress. Bangladesh's leather industry has been steadily growing since the 1980s. Bangladesh has a significant edge over its rivals in the availability of low-cost labor. The leather footwear business is a labor-intensive business that benefits from Bangladesh's flood of inexpensive labor. Employers and the government should work together to enhance the working conditions of workers. Bangladesh's leather industry lacks enough research and development facilities. Due to a lack of financial assistance, only a tiny amount of money is spent on research in Bangladesh. As a result, the money supply in this research business is inadequate. However, there are specific study projects on the pollution generated by the tannery

industry in wealthy nations. This study is a little effort to research in the context of Bangladesh's leather industry.

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