Master Thesis

THE TRADE PERFORMANCE OF GARMENT SECTOR OF BANGLADESH WITH INDIA

2022

The Graduate School of Hansung University

Major in International Market Analysis

Dept. of International Trade and Economics

Islam Md Shafiqul

Master Thesis

Advisor Professor YoonKyo Cho

THE TRADE PERFORMANCE OF GARMENT SECTOR OF BANGLADESH WITH INDIA

- 방글라데시 의류부문의 인도와의 교역실적 -

June 2022

The Graduate School of Hansung University

Major in International Market Analysis

Dept. of International Trade and Economics

Islam Md Shafiqul

Master Thesis

Advisor Professor YoonKyo Cho

THE TRADE PERFORMANCE OF GARMENT SECTOR OF BANGLADESH WITH INDIA

- 방글라데시 의류부문의 인도와의 교역실적 -

Submit the above thesis as a master's thesis

June 2022

The Graduate School of Hansung University

Major in International Market Analysis

Dept. of International Trade and Economics

Islam Md Shafiqul

Approved Islam Md Shafiqul Master Thesis in International Trade and Economics

June, 2022

Judge Chair 김 인 선 (Sign)

Judge 노 재 확 (Sign)

Judge 조 윤 교 (Sign)

ABSTRACT

THE TRADE PERFORMANCE OF GARMENT SECTOR OF BANGLADESH WITH INDIA

Islam Md Shafiqul

Major in International Market Analysis

Dept. of International Trade and Economics

The Graduate School

Hansung University

Bangladesh is geographically bounded by India on 3 sides, the Sea of Bengal upon that south, and a very minor border region with Myanmar inside the south-east. Despite being a small rising developing economy, Bangladesh has given their close physical proximity and cordial political and diplomatic ties, it makes sense that Bangladesh and its largest neighbor would conduct a lot of business together. The research provides some early findings of commerce between these two nations in light of this backdrop. More precisely, it explored the relative positions of the two nations in international commerce and used aggregate level data to analyze the overall pattern in exporting to and importing from

India as well as the trend in the balance of trade. The study concludes because India has a significantly stronger place in the world commerce compared to Bangladesh and also that India significantly outperforms Bangladesh in trade agreements, causing Bangladesh to have a very significant and ongoing trade imbalance with India. The study made use of information gathered from national sources as well as sources from international organizations like the UNCTAD and the World Bank. Academics, researchers, policymakers in Bangladesh, India, and multiple global entities, research institutes, and trade professionals will find the article interesting.

Keywords: Trade performance, Garment sector, Bangladesh, India, inflatio n, exports, imports, exchange rate

Table of Contents

List of Tables

Chapter 1: Introduction

1.1: Background of the research

The ready-made garments (RMG) business has had a significant impact on both India and Bangladesh's economic development. The RMG sector in India is a spin-off from the garment industry, providing to factory production, job creation, and export revenues. In Bangladesh, the Ready-Made Garments industry is the country's backbone of manufacturing operations. The RMG business is the lowest resource investment in the garment value chain, and it is extremely fragmented in both India and Bangladesh, with small and major companies.

The Indian RMG business is mostly made up of knitted and woven garment segments, and it has carved out a niche for itself as a manufacturer of both raw materials such as cotton and completed items, such as ready-made clothes. Bangladesh's RMG sector also includes knitted and woven garments, with the former dominating the latter (Kabeer, 2016).

Textile and garment manufacturers have been considered essential in creating employment since the beginning of the Industrial Revolution for 2 purposes: textile industries and apparels are core items of expenditure in all nations, and apparel production includes cheap labour, common items little fixed capital but providing significant employment opportunities (Adhikari & Yamamoto, 2018). As a result, textile and garments have been key difficulties in many countries' trade relations. As a result, over the years, a slew of agreements, mostly between developed and developing nations, have been struck affecting and restricting the amounts of textile products traded (Rock, 2021).

In terms of RMG export markets, the United States is the most

important for both Bangladesh and India, accounting for 20% and 24% of total exports, respectively, followed by other European countries such as the United Kingdom, France, Germany, Belgium, and the Netherlands. However, behind the United States and the United Kingdom, the UAE is India's third-largest market for RMG export.

The textile and garment industry has grown dramatically in Bangladesh during the last twenty years, earning it a crucial position in the country's economy. Bangladesh's economy has grown by more than 6% in the last five years, and the country ranks 13th out of 152 nations in terms of real trade growth. Global Trading Index 2018, World Bank is a South Asian emergent economy. Except for India, the country's actual trade balance is more than 9% greater than the rest of South Asia (WTI, 2021). In 2014, Bangladesh's export percentage of GDP was 10%, which was less than Pakistan, India, Sri Lanka, and Cambodia, but greater than several African low - income countries.

Over the past year, the export percentage of GDP has increased slightly, although not significantly. In 2007, exports accounted for 17% of GDP (Export Promotion Bureau, 2018). To improve its international competitiveness, Bangladesh implemented significant trade policy changes in the early 1990s, including significant tariff reductions, the separation of price controls, and the transition from numerous to a strong and united rate of exchange and from a constant to an openly flexible exchange rate regime. According to a research published by (Jinhwan & Rashedur, 2013), the major problems encountered when starting trading with Bangladesh include: Infrastructural deficiencies, notably in the areas of road networks and electrical delivery, are a major concern.

Largely unskilled workforce: low educational spending has resulted in lower attendance and education quality. The economic system is not diverse and is extremely reliant on agriculture sector; services and apparel

only account for a small percentage of the economy due to government bureaucracy and a lack of policy alignment at various levels of government (Rahman & Zheng, 2014).

Due to New Delhi's peace negotiations, integrated logistics ease, and an argument stronger for Indian agriculture products, Bangladesh has overtaken Hong Kong in becoming India's fourth biggest trading partner during first 3 months of operation calendar year, and has managed to climb 4 spots to fare in the nation's highest five trade partners in 2020-21. Roadways, trains, airplanes, and waterways serve as modes of transit between India and Bangladesh. Because air freight is so much more expensive than the other modes, it has a very small proportion.

In 1972, both states agreed the Indo-Bangladesh Agreement on Land and water Transit and Trade, which made river water transportation easier (Haider, 2017). This fact has been renewed by both governments on a regular basis, and it has been extended through 2014. But some technical difficulties between two nations have blocked some trade agreements and Bangladesh should work on making agreements with India in terms of improving their trade performance of exporting garment products in India.

1.2: Problem statement

Bangladesh could overtake Pakistan as India's major export market in 2021 – 22, leapfrogging Pakistan by different spots in 2 years. This comes as India's exports continue to benefit from its eastern neighbor's economic progress. As per tabulated available data till October, exports to Bangladesh increased by 81 percent to $7.7 billion during first 7 months of 2021 – 22, compared to the same time the previous year. After the United States, the United Arab Emirates, and China, it is India's

fourth largest export destination.

If the current trend continues, Bangladesh's ranking in India's export profile will only improve from 5th last year, when it stunned observers by leaping from 9th in FY20 (Alamgir and Banerjee, 2021). With its astonishing change over the last decade, Bangladesh has become an economic boom in South Asia, and it may soon exceed India in order to reduce poverty. Bangladesh's prosperity is largely due to its performance as a garment exporter, which accounts for around 80% of the country's total exports and remittances from abroad account for more than 6% of GDP. Cotton (2.1 billion USD), grains (1.3 billion USD), electricity and petrol ($0.6 billion), auto components (0.5 billion USD), and technology and transportation equipment (0.4 billion USD) are among India's top exports to Bangladesh during April to October 2021 (Alamgir and Banerjee, 2021).

In response to China's new current efforts to attract Dhaka with duty-free entrance to its exports, India is pursuing a multi-pronged approach to strengthen trade and business ties with Bangladesh. While China's trade subsidies may push Bangladesh into a "dual deficit and debt trap," ET has learned that India is launching a slew of connectivity projects to allow frictionless transportation of Bangladeshi goods to India's isolated north - eastern states and elsewhere. According to a source, India had granted duty-free access to various Bangladeshi items decades before the Chinese move, and this helped lower the trade gap between Dhaka and New Delhi. India's terms and circumstances, from trade subsidies to loans, are more beneficial (Mostafa and Klepper, 2018). According to the above-mentioned source, Beijing deliberated for years before granting Dhaka trade advantages, and the move could force the country into a debt trap.

However, there are problems and issues that must be addressed in

advance in the interests of both parties. Intraregional commerce in Southeast Asia accounted for only 5% of the state's total trade, according to a Report of the World Bank published in Early March this year, a portion of the 25% for the Southeast Asian region. According to the research "Linking to Develop: Opportunities and Challenges of Infrastructure Connectivity in Eastern South Asia," trade volume between India and Bangladesh accounts for barely 10% of the original's foreign trade and 1% of India's. Inter transportation connectivity in the region is a major contributor to the region's poor commerce volume. As a result, transportation connectivity accords in South Asia are critical for the development of cross-border integrated transportation systems. Since 2011, India has permitted all Bangladeshi exporters duty-free access with the exclusion of 25 specific items, including alcohol, in an effort to assist close the trade imbalance.

The Indian foreign ministry hosted a "Conference for Economic and Business Journalists" on its premises, according to The Guardian. Bangladesh is no more reliant on a single internationally traded commodity, such as clothes, but rather on diverse largest exporters that contains plastic, processed foods, and leather (Mostafa and Klepper, 2018). Gupta (2020) further said that providing lower transportation costs and higher-quality goods would help Bangladesh compete in the nearby market.

Due to some major problems such as Rana Plaza Tragedy, Holy Artisan Tragedy and Fire incidents in several garment buildings, the buyer from US markets and European markets have moved their interests from Bangladesh to import products. Therefore, Bangladesh is looking for potential opportunity to find a new market such as India where it can increase its exports by exporting garment products in the nation.

1.3: Objectives

- To check and investigate the current situation of total export of garment products of Bangladesh with India
- To check and investigate the current situation of total import of garment products of Bangladesh with India
- To present an overview of an international trade in textiles and clothing by focusing only the two countries Bangladesh and India.
- To examine the competitive positions of Bangladesh in the garment industry by evaluating win-win situation while trading between both countries

1.4 Research questions

Q1. What is the current trade performance of Bangladesh with India?
Q2. What is current export and import situation between Bangladesh and India in terms of the garment industry?
Q3. Does the trade performance of garment sector enhanced for Bangladesh while trading with India from previous years?

1.5 Research significance

Due to its quick expansion and demand, the study has contributed by providing value to the material and providing the most up-to-date findings that would be useful for exports and imports of different nations to invest in and appreciate the garment trade sector. The research has been referred to and supported by appropriate journals, and valid data has been collected, so the study's findings will undoubtedly be beneficial

to academicians, marketers, and traders. Changes to trade policies can be made to limit the expansion of trade apparel both Bangladesh and India. The proposed research will indeed be beneficial to governments' trade sectors in order to align SOPs that will attract foreign investment and increase GDP contribution (Islam and Liang, 2018). The significance of the study is that it can help garment owners of Bangladesh to understand that they can get benefits from exporting products in India. The Government of Bangladesh can take help from the study to analyse the significance of trading with India in the future. It can also improve the garment industry of Bangladesh to improve the trade performance where Bangladesh can get benefits from getting positive trade balances while import-export trading with India. Some new materials have been added in the study which can help experts to get a new direction on Bangladesh's trade performance while trading garment products in India. While elaborating a related topic on India-Bangladesh trade performance, some researchers can get help from the study and they can find gaps and develop new studies in the future (Mottaleb and Sonobe, 2015).

1.6 Research gaps

The study has found many research gaps including maximum researches are based on couple of industries where no specific industry was discussed to evaluate the bilateral trade between Bangladesh and India. Therefore, the study has found difficulties while finding relevant researches to explore exports-imports between these two neighbor countries. The methodology of the study was also different in some studies where maximum researches have showed secondary methodology by putting panel data analysis by taking specific periods from 5 years to 20 years. But the study would be based on 25 years by taking new data

from 1994 to 2019.

No studies have developed any studies where the impact of exchange rate of Bangladesh was explored while explaining the trade performance of Bangladesh in the garment industry while exporting products in India (Khanna, 2011). Therefore, the study would explore this relationship of exporting products in India and exchange rate of Bangladesh in terms of US dollars. This study has also explored how inflation rate can create an impact on the trade performance of Bangladesh by explaining the relationship between inflation rates and exporting garment products which was never investigated in any study for particular years.

Chapter 2: Literature review

2.1: The present situation of garment sector of Bangladesh

The study of Basu and Datta (2019) revealed that industrial growth is a crucial factor in a country's economic progress. It has a profound impact on the monetary structures of developing countries. Bangladesh's textile industry dates back over 500 years. With its long history, it's among the longest – established enterprises. Furthermore, textile and clothing production has advanced significantly in recent years. Basu and Datta (2019) found three essential causes have increased Bangladesh's textile industry's growth. The country is rich in resources, opportunities, and government policies that are beneficial. A huge number of labor laborers may be found in Bangladesh. Natural gas and energy are also inexpensive in Bangladesh which has an edge in creating labor-intensive items because of its large population.

Gazi (2018) found that the dedicated labor force in Bangladesh is indeed the key reason for the textile industry's growth. To meet the deadline, they worked longer hours. As a result, the country's per capita income and people's living standards have improved in recent years. Second, in the readymade clothes area, the country had a favorable ability to sell with America and European countries. He also added that these prospects were aided by government measures that aided the textile industry's rise in Bangladesh. Foreign investment was encouraged by the government's liberal policies. Bangladesh's garment industry is well-known and occupies a significant position in the global market today. Textile items, sweaters, and hand-woven apparels are all part of the country's textile sector. These products are the most profitable for the country's export earnings (Gazi, 2018).

The Ministry of Commerce of the Government of Bangladesh (2020) evaluated the current scenario of the garment industry of Bangladesh where it reported that the quota-free textile law, which has been in effect since 2005, has significantly enhanced Bangladesh's textile industry. Monetary incentives and institutional assistance were among the government programs that aided the textile industry. In comparison to India, Pakistan, or China, human labor and power are both inexpensive and readily available. This provides them with a competitive advantage over their rivals. The spinning sector is virtually free of tariffs under the new textile laws that have been implemented. Imported yarns and materials, on the other hand, are subject to high taxes in order to promote using of local synthetic materials and thread production (Gupta, 2020). All of these variables worked in Bangladesh's favor in terms of textile growth. Nonetheless, the spinning business has grown in the last ten years in the country.

Bangladesh's major export sector is textiles and garments, with connections to China, India, and the United States (Rahman & Zheng, 2014). Bangladesh, a labor-rich country, began the industrialisation process by focusing on labor-intensive items like textiles and garments. For more than a decade, Bangladesh's garment sector has been capable of sustaining and retains 85 percent of the country's overall export earnings. Clothing's proportion of total exports has expanded drastically from 0.2 percent in 1980 to roughly 74.8 percent in 1997-1998 (Islam, 2020).

Price competition is one of the primary reasons for Bangladesh's success in the garment sector. Bangladesh is among the cheapest nations both in United States and the European Union. Furthermore, as a member of the LDCs, Bangladesh has duty-free and quota-free market access to a number of nations, including Australia, Japan, as well as the EU (Gautam, 2019). Bangladeshi apparel exports are characterized by (1) a

high concentration on low-value-added items, (2) a strong reliance on imported intermediate inputs, and (3) a relatively high concentration of exports, according to a study done by (Bhattacharya, 1999). With the discussion of the agreements on Textiles and Clothing, the destiny of Bangladesh's garment sector is largely regarded to be at a fork in the road (ATC) (Gazi, 2018).

Furthermore, India and Bangladesh have excellent mutually beneficial economic links, with a variety of factors contributing to the two nations' continued trade growth (Razzaq & Raihan, 2017). A nice wide border, equivalent value structures, geographical proximity, and common linguistic abilities are among these determinants, according to another study (Kabir & Surender Singh, 2019).

Obaidur et al. (2019) explained that it is widely acknowledged that Bangladesh's textile and apparel industries have a bright future. In fact, foreign money received through textiles and readymade export volume accounts for a significant portion of national income. Bangladesh's textiles and apparel sector accounts for 81.43 percent of the country's overall exports. In this condition, it is simple to see what might happen if this sector has any tiredness or problems. The supply of plentiful renewable gas, inexpensive labor, and electricity has been the primary cause for Bangladesh's textile industry's long-term survival. However, in recent years, all of the plentiful resources that have formed the textile industry's backbone have become unfriendly (Gupta, 2020).

Sobhan and Farooq (2021) found some major problems in the sector that Bangladesh cannot continue to waste these vital resources in this situation, or it will be unable to participate in the global textile and apparel market. The main topic of discussion at the 2nd International Forum on Textiles and Apparel is resource management. The current state of the textile sector will be examined during this conference. The

first aim is to find appropriate answers to sensitive issues and to adopt methods that will help Bangladesh's textile sector flourish. The tragic demolition of an industrial building near Dhaka has raised concerns about Bangladesh's industry safety regulations on a worldwide scale (Gazi, 2018). According to sources, well over 300 factories in Ashulia were shut down as a result of the deadly occurrence.

2.2 The future of the garment industry of Bangladesh

A chain of workplace catastrophes that claimed the lives of over 1,000 laborers and made international headlines propelled the change of Bangladesh's Textile sector over the last decade. The Tazreen garment factory in 2012 and the Rana Plaza factory disaster in 2013 exposed widespread flaws in working conditions and prompted some foreign buyers to discontinue buying from Bangladesh and the US to remove its favorable tariff deal (World Bank, 2021).

Waheduzzaman (2019) thanked to the initiative taken in the following the end of the disasters, such as the Agreement on Building and Fire Safe operation in Dhaka, the Partnership for Bangladesh Worker Rights, and the RMG Sustainable development Council, Bangladesh's RMG sector is now a leader in greater transparency industrial protection and value-chain responsibility. Hundreds of dangerous, low-wage factories were closed as a result of these actions and remediation work in many more were ramped up.

Shamsul (2020) forecasted that these efforts helped Bangladesh regain its appeal in the international clothing and accessories market, resulting in a decade of tremendous expansion. We predicted a growth rate of 7 to 9% ten years ago. Ready - made garment sales from Bangladesh have almost twice, from 14.6 billion USD in 2011 to 33.1 billion USD in 2019,

representing a 7 percent annual growth rate. Bangladesh's RMG industry grew its portion of world export trade from 4.7% to 6.7% over this time. It's within the area that predicted in the research, but it also demonstrates that the nation has not to realize its full potential, which had been predicted ten years ago. He evaluated that there were signals of a downturn, with negative growth in the end of 2019 compared to 2018. Then COVID-19 started, which resulted in transaction cancellations, rejections, poor contract management, and negotiation of terms in 2020 (Ter Haar and Keune, 2019). As the pandemic threatened Bangladeshi workers' lives and livelihoods, several smaller, less well-funded firms shuttered their doors, increasing competition for smaller orders. In the first year after the pandemic, the value of Bangladesh's RMG exports plummeted by 17%, resulting in financial losses consisting of up to 5.6 billion USD (World Bank, 2021).

2.3: Trade relations between Bangladesh and India

India's and Bangladesh's trade profiles are very different from one another. India's trade portfolio is driven by basic and manufactured goods, with textiles, transportation (apart from railway), mechanical appliances, grains, and mineral fuels among its main exports to Bangladesh (Ahmed, 2019). Bangladesh's exports, on either hand, are driven by manufactured goods from labor-intensive industries. Vegetables, fabric fibre, pieces of clothing items, pieces of apparel, knitted leading goods, and other produced textiles are among its main exports to India (Adhikari R. Y., 2017). Because there is a scarcity of literature on trade balance between India and Bangladesh, Bangladesh has been able to eliminate its trade imbalance simply by establishing and expanding commercial links with India (Sarker, 2019).

According to Kartik (2019), the Indian government has announced that it will soon complete a joint project with Bangladesh mostly on chances of signing a mutual free trade agreement aimed at deepening economic connections between the two countries. Bangladesh is India's sixth-largest trading partner. Several steps are being taken to ease trade for both India and Bangladesh, along with the approval of a Specific Proposed Project for developing a container terminals infrastructure at Sirajganj Bazar, the building of a new 900-meter agreeing route at Benapole for operating freight trains, and the completion of a loading / unloading channel of train platform at Darshana for the import of all commodities (Shamsul, 2020).

Bangladesh may overtake Pakistan as India's 4th major export destination in Fiscal Year 2022, according to numerous Indian and Bangladeshi press reports. This occurs as India's exports continue to benefit from its eastern neighbor's economic progress. Last year, the Indian news outlet 'Business Standard' where Mishra (2022) reported that exports to Bangladesh increased by 81 percent to $7.7 billion in the first 6 months of Fiscal Year 2022, compared to the same period the previous year. After the United States, the United Arab Emirates, and China, it is India's fourth largest export market.

2.4: Garment product exports and imports between Bangladesh and India

Bangladesh's garment product exports are six times higher than those to the six Association of South East Asian Cooperation member countries (SAARC). After China, Bangladesh imports the most items from India. Both countries have now launched negotiations on a broader economic cooperation agreement (CEPA) to improve trade ties. Bangladesh, in fact,

presented the agreement with a focus on the challenges that come with graduating from LDC status. Experts believe that if such a pact is signed, trade across India and Bangladesh will expand in addition to boosting connectivity (Mishra, 2022).

The newspaper article of Textile Today, where Afsana (2022) elaborated that over the last few years, some prominent Indian firms have been importing garments directly from Bangladesh and this is one of the key causes for a huge increase in garment exporting to India and a senior executive of a Bangladeshi garment buying firm agreed with that his garment company exports 10% of its annual garment revenue to India with a worth of $30 million (UNCTAD, 2021). Even some Indian businesses create garments in Bangladesh and export it to India for local shops, according to the official, who did not want to be identified. According to him, the shorten delivery time is a crucial factor in the increased export of garments from Bangladesh to India.

Afsana (2022) also explained in Textile Today that exporting garment products from Chattogram seaport to European ports usually takes 35 to 40 days, whereas India's export is as simple as crossing borders and takes just two or three days. Furthermore, due to geographical proximity, export to India is available via a variety of forms of transportation, including railways, trucks, and ocean-going ships. Over 500 national garment factories, including significant enterprises, are participating in the exporting of garment products to India as a result of the economic potential.

2.5: Inflation rate of Bangladesh affecting its trade performance

The accord on trade agreement of garment and apparel exports between Bangladesh and India will significantly boost economic activity. According

to the World Bank's (2020) report, this will boost real income levels in India by 1.4 percent to 5.6 percent and in Bangladesh by 3.4 percent to 11.3 percent. West Bengal might have a 15% increase in income, whereas Chittagong could see a 28% increase and Dhaka could see a 40% increase. The report of Daily Star where Anwara (2022) explained that Bangladesh's economy has seen a rise in inflation in recent years by posing a serious danger to the country's macroeconomic stability. Bangladesh's inflation is caused by a variety of reasons. Imported inflation, which is caused by currency depreciation, import dependence, supply of money expansion, remittance flow, interest rate differentials, high population growth rate, and an increase in money wage without efficiency, are the main causes of inflation in Bangladesh.

A number of research concentrate on the fluctuating link of inflation with the trade performance of the import and export. The study of Ulke et al. (2018) indicated that there is indeed a brief and dynamic correlation between economic growth and import using annual time series analysis for the economy of Turkiye from 1995 to 2010. The study also discovered a unidirectional correlation between imports and inflation. In Nigeria, Muktadir-Al-Mukit, Shafiullah and Ahmed (2019) investigated the potential and simultaneous interrelationship between inflation and its drivers. The Johansen co-integration method and the multiple regression models are used to examine inflation factors for time series data from 1970 to 2007. The data show that, among other things, imports have a positive relationship with inflation, but the exchange rate is only indirectly related to inflation. Lim and Papi (2017) investigated the factors that influence inflation in Turkey. They used time series data covering the period to 1995 in this study and used the Johansen Co integration approach to get the outcomes.

Money, earnings, trade balance, and import prices all have a beneficial

impact on local prices in Sri Lanka, whereas the exchange rate has the opposite effect. Gylfason (2011) used statistical methods to investigate the relation between trade performance and some of its causes, such as inflation, in cross-sectional data from 160 nations. He comes to the conclusion that high inflation has historically been connected with low sales. Furthermore, his research demonstrates that primary commodity exporters experience higher inflation than manufactured goods exporters. Dexter et al. (2015) found that international trade commerce has a large distinct influence on inflation in the US economy, with imports having a negative link with inflation and exporters having a positive relationship with inflation. Using time series analysis from 1972 to 2005, Khan et al. (2017) aimed to identify the most significant causal elements for inflation patterns in Pakistan.

According to the findings, government related loans, real consumption, private industry loans, import prices, currency rates, state taxes, previous year rate of inflation, and wheat subsidy prices all have a direct impact on Pakistan's consumer price index. According to Loungani and Swagel (2021), consideration of money growth and exchange rates is more significant in countries with floating exchange rate regimes than in countries with fixed exchange rate regimes for determining inflation. In the context of Bangladesh, there seem to be a lot of publications on the possible determinants of inflation. Taslim (2012) attempted to evaluate the inflation trend in Bangladesh using data from 1980 to 2010 in the framework of the behaviorist debate. According to the findings, the major explanatory variables are the rate of change in the money supply and devaluation. Any depreciation of the local currency is accompanied by a nearly corresponding increase in rates of inflation, whereas an increase in the money supply does not result in an equal corresponding increase in rates of inflation.

2.6: Effects on the exchange rate of Bangladesh from importing and exporting garment products

Kelly (2018) analysed that consumers are accustomed seeing goods from all over the world at their local supermarkets and retail outlets in today's dynamic business environment. Consumers have additional options with these imported goods from other countries. Imports also assist consumers handle their tight budgetary decisions because they are typically manufactured at a lower cost than produced domestically.

Kelly (2018) added that Trade with foreign operations can have an impact on a country's GDP, exchange rate, inflation, and interest rates. An increasing trade imbalance and rising exports could have an adverse influence on an expected exchange rate. A weaker national currency encourages exports while raising the cost of imports; on the other hand, a strong national currency discourages exports while lowering the cost of imports. Higher inflation in exchange rate can have an influence on exports by directly affecting input costs like labor and materials.

According to Islam (2013), the finance ministry determines exchange rate policy with two key goals in mind. The first is the 'domestic aim,' which involves limiting inflation, government and non – governmental credit expansion, and liquidity and wide money growth. Second, the 'external target,' which involves increasing international reserves, reducing the current account deficit, controlling currency rate variations in the local interbank foreign currency, and adjusting the exchange rates of India, Pakistan, and Sri Lanka, among other things.

According to Younus et al. (2016), the free exchange – rate system was implemented to prevent overvaluation of the home currency, which would make export lower competitive in the international and import replacements more difficult to deal with goods imported. According to Islam (2013), the main goal of the unrestricted floating exchange rate

system is to avoid major exchange rate misalignment, particularly any unusual appreciation of the real exchange rate that could harm export demand, to maintain current export rate and decrease the budget deficit, to control inflation, and to increase remittances.

Rose (2011) looked at the empirical relationship between real effective real exchange rate balances in the era of post-Bretton Woods for the major five OECD nations. The exchange rate, according to Rose's research, is a minor influence of trade balance. The idea that the exchange rate was a statistically negligible driver of trade performance could not be refuted by Rose (2011). Using quarterly data, she looked at trade balance between the US and other OECD countries.

Singh (2012) shows that the real exchange rate and domestic income' have a considerable impact on 'trade performance' in Indian data, but 'foreign income' has a negligible impact. According to Singh's research, the rate of exchange (+2.33) and national GDP (-1.87) have a considerable impact on the Indian trade performance. Vergil (2012) looked into Turkey's trade balance with the US, France, Italy, and Germany. The real exporting of Turkey was calculated on the basis of real foreign business activity, international exchange rate, and price volatility in Vergil's work. According to the analysis, the real exchange rate has a considerable impact (+2.24) on Turkey's actual exports to the United States.

The impacts of real changes in exchange rates on the trade performance were studied in Onafowora's (2013) article. The study used a co-integration test of vector error correction model to investigate three Asian nations such as Malaysia, Indonesia, and Thailand, in their bilateral commerce with the United States and Japan. In all situations, the result suggests a long-run positive link between the exchange rates and the real trade performance.

Chapter 3: Methodology

3.1: Research method

The time series research methodology would be performed in the study where a group of data set would be collected for specific years which could help the study to identify the significance of the study. The time series methodology would require statistical analysis of the study where probability of some hypothesis would be tested to show relationship between independent and dependent variables. As the study is based on trade performance of Bangladesh and trade relation between India and Bangladesh in terms of the garment sector and economic growth of Bangladesh, related information would be proved in the study (De and Bhattacharyay, 2017).

A time series analysis an in investing follows the change of selected pieces of data, such as the trade performance of a country, over a set period of time, with measured values collected at periodic intervals. There is no set timeframe that should be recorded, enabling the information to be collected in a way that offers the information that the client or researcher looking into the activity is looking for.

3.2: Research technique

Several types of techniques could be followed in research studies which are descriptive, collectivism and interpretivism and the study would follow the collectivism technique where the study would collect data and analyse collected data in statistical manner. This study would also follow the inductive technique as the study would explore an existing topic but this

study would explain some new variables such as inflation, exchange rate and import of garment products. Several studies have explored total trade performance between India and Bangladesh but this study would only analyse the garment sector of Bangladesh and its trading between Bangladesh and India (Lendasse, 2017). In inductive technique, a series of hypotheses is analysed which can help to build a study to prove different variables which are selected for a study. Maximum researchers use inductive technique because it can help the study to find examples at first and help researchers to set rules and methods for the study.

3.3: Qualitative or quantitative

Two types of techniques could be applied in research studies which are qualitative and quantitative technique and the study would explore the quantitative technique as it is related to time series analysis. Quantitative approaches are statistical and mathematical procedures that aid in decision-making, particularly in the field of industry and business. The elements of characteristics such as the use of figures, symbols and other equations are taken into account by QT (Imai and Hashizume, 2014). QT is essentially a tool for improving judgment and intuition and rather of suggesting courses of action, quantitative tools examine planning aspects and choices as they arise.

3.4: Data collection method

The study has used the data collection period from 1995-2019 for 25 years where export from Bangladesh to India, import from Bangladesh to India, export from India to Bangladesh and export from India to Bangladesh were analysed. To collect data for different variables of the

study, different reports and articles have helped to collect the study. The study has collected all data related to total export of garment products from Bangladesh to India from the report of UNCTAD and all information were available in the website of UNCTAD. Total imports of garment products from Bangladesh to India are also taken from the UNCTAD report which was taken for 25 consecutive years (Lee and Tong, 2011). The World Bank report has helped to collect data on inflation rate in terms of percentage growth of each year and Bangladesh Bank report has helped to collect data of exchange rate of Bangladesh in terms of US dollars per year.

3.5: Data presentation

Secondary data will be collected from different sources and a trend analysis approach to evaluate the impact on the trade performance of Bangladesh with India in the garments sector will be studied and analyzed. Further a trend of 20 years will be checked, data will be collected from the valid sources and then a proper discussion will be conducted. The thesis will largely base on information from secondary sources (Dielman, 2020). A detailed analysis of import trends and market shares of dominant and emergent suppliers over the last ten to fifteen years is presented to evaluate the export performances for Bangladesh and India in export of garments.

The regression equation was used such as –

(1) $EXbd = \beta 0 + \beta 1\ IMi + \beta 2\ XR + \beta 3\ I + e$

Where,

EXbd = Export of garment products from Bangladesh to India

I = Inflation rate of Bangladesh

XR = Exchange rate of Bangladesh taka with USD dollars

IMi = Import of garment products from India to Bangladesh

$\beta 0$ = Intercept slop

e = random error

3.6: Data measurements

Table 1: Description of Variables

Variable name	Interpretation	Values in units	Sources of Data
EXbd	Total export of garment products from Bangladesh to India	The value has been given in US million dollars	UNCTAD
I	Total inflation rate percentage growth of Bangladesh year by year	The value has been given in percentage growth	World Bank
XR	Total exchange rate of Bangladesh in comparison to US dollars	The value has been given from US dollars to Bangladeshi Taka	Bangladesh bank report
IMi	Total imports of Garment products from Bangladesh to India	The value has been given in US million dollars	UNCTAD

3.7: Data analysis method

To analyse the data, specific software has been used which can help to check the unit root test, regression analysis of data and linear regression of data, value of R square and descriptive statistics of Data. STATA 14.2 software has been used in the study to help the study in measuring regression analysis, p value to identify significant of variables. Microsoft excel has been used to find descriptive statistics of each variable.

Therefore, at first the stationary of data would be checked using Agmented Dickey Fuller method and Philips Perron method and the descriptive statistics of variables would be analysed (Aladag, 2019). After that, multiple regression method would be applied using OLS regression model and Newey-West regression model to signify the p value of the study to show the variable is significant or not in the study.

Chapter 4: Conceptual Framework

4.1 Variables

(1) EXbd = $\beta 0$ + $\beta 1$ IMi + $\beta 2$ XR + $\beta 3$ I + e

Dependent variable: EXbd = Export of garment products from Bangladesh to India

Independent variable: I = Inflation rate of Bangladesh

XR = Exchange rate of Bangladesh taka with UD dollars

IMi = Import of garment products from India to Bangladesh

4.2 Hypothesis testing

H1. Import from garment products from India has a positive effect on export of garment products of Bangladesh

H2. The exchange rate of Bangladesh has a positive effect on export of garment products of Bangladesh

H3. The inflation rate of Bangladesh has a negative effect on export of garment products of Bangladesh

Chapter 5: Data analysis

5.1: Explanation of variables

Dependent variable:

(1) Export of garment products from Bangladesh to India (EXbd)

This variable has been chosen as the dependent variable for the paper as the total export of garment products from Bangladesh to India can measure the trade performance of Bangladesh by exporting products as the paper is dependent on the variable.

Independent variable:

(1) Inflation rate for Bangladesh (I)

Inflation rate of Bangladesh is chosen as the independent variable because the paper would explore inflation rate as an independent variable to determine how inflation rate can affect the trade performance of Bangladesh with India

(2) Exchange rate of Bangladesh taka with UD dollars (XR)

Imports and exports of products have a huge impact on the dollar rate of a country and the export and import of garment products with India have always created a huge impact on the dollar rate of the country and the trade performance of Bangladesh is dependent on the dollar rate of the country.

(3) Import of garment products from India to Bangladesh (IMi)

To determine trade balances and the trade benefits of Bangladesh while trading products with India, the import of garment products from India to Bangladesh should be determined and the variable has been chosen as the independent variable as the export of garment products would be dependent on it.

5.2: Descriptive statistics

The descriptive statistics is showing that the variable of EXbd has been described in US million dollars per year where the mean value of the variable is 390.42 and the median value of the variable is 356.32. The standard deviation of EXbd has been found as 288.84 and the maximum value of the variable is 872.01 where the minimum value of the variable is 19.10. IMi is one of independent variables of the study which has been described in US million dollars and it denotes total imports from Bangladesh to India in terms of the garment sector (Fisher and Marshall, 2019). The variable shows that it has the mean value of 90.71 and the median value is 76.26 and the standard deviation of the variable is 62.41. The maximum value of the variable is 189.22 and the minimum value of the variable is 20.40.

The exchange rate of Bangladesh has been measured as independent variable of the study which has been showed as XR variable and the variable has been described in terms of dollar rate to taka. The mean value of the variable is 63.23 where the median value of the variable is 62.35 where the standard deviation of XR variable is 16.17. The maximum value in XR variable has been found as 84.31 where the minimum value of the variable is 40.12. Inflation rate has been described as independent variable of the study where it is showed as I variable.

The unit value of the variable is described in the growth percentage per year and the mean value of the variable is 1.70. The median value of I variable is 1.65 and the standard deviation of the variable is 1.00 (UNCTAD, 2021). The maximum value of the variable is found as 3.91 where the minimum value of I variable is 0.11.

Table 2: Descriptive Statistics

Variables / Statistics	EXbd	IMi	XR	I
Units	In US million dollars	In US million dollars	In 1 dollar to taka exchange rate	In growth percentage per year
Mean	390.42	90.71	63.23	1.70
Median	356.32	76.26	62.35	1.65
SD	288.84	62.41	16.17	1.00
Max	872.01	189.22	84.31	3.91
Min	19.10	20.40	40.12	0.11

5.3: Unit root testing

5.3.1 Stationary or non-stationary data checking using ADF method

Stationary and non-stationary checking of variable EXbd

dfuller D_exbd

Number of observations = 23

Table 3: Unit Root test of EXBD

	Test statistics	1% critical value	5% critical value	10% critical value
Z (t)	-4.878	-4.380	-3.600	-3.240

MacKinnon approximate p-value for Z(t) = 0.0031

While checking the stationary data using ADF method, the data collection of the variable of EXbd was found as stationary as the t statistic value is more than 1% critical value, 5% critical value and 10% critical value. The value was not stationary at the first stage and the first difference between variable was used for making the data collection stationary. The MacKinnon testing while checking stationary of data showed that the p value of the variable is 0.003 which means that the variable is significant.

Stationary and non-stationary checking of variable IMi

dfuller imi,

Number of obs = 19

Table 4: unit root testing IMI

	Test statistics	1% critical value	5% critical value	10% critical value
Z(t)	−4.308	−4.380	−3.600	−3.240

MacKinnon approximate p-value for Z(t) = 0.05

While checking the stationary and non-stationary value of IMi variable using ADF method, the result is showing that the variable is stationary as the test statistic value is more than 10% critical value. The result has come after using trend lag 4 where 19 observations were used for checking the data stationary. MacKinnon approximate value is showing that the variable is significant where the value of the variable is 0.05.

Stationary and non-stationary checking of variable XR

dfuller D_xr,

Number of obs = 22

Table 5: unit root testing XR

	Test statistics	1% critical value	5% critical value	10% critical value
Z (t)	−3.305	−4.380	−3.600	−3.240

MacKinnon approximate p-value for Z(t) = 0.03

The study has applied augmented Dickey fuller method in the variable of XR and it was found that the data is stationary as the t statistic value of the variable is more than 10% critical value. At first, the data was not stationary and the difference was generated to make the data of XR variable stationary and the trend lag of 2 was applied by taking 22 observations. The MacKinnon approximate p value was found during checking the stationary which shows that the p value is significant as the value is 0.03.

Stationary and non-stationary checking of variable I

dfuller i,

Number of observations = 24

Table 6: unit root testing I

	Test statistics	1% critical value	5% critical value	10% critical value
Z(t)	−5.055	−4.380	−3.600	−3.240

MacKinnon approximate p-value for Z(t) = 0.0002

While checking the stationary data for the variable I using ADF method, the result shows that the data is stationary as the value of the variable is more than 1% critical value, 5% critical value and 10% critical value. No difference of value is needed to be created as the result was stationary by using the same data and the trend lag of 0 has been applied which shows that the data is stationary. MacKinnon approximate value of p value is showing that the variable of I is significant as the value is 0.0002.

5.3.2 Stationary or non-stationary data checking using Philips Peron method

Stationary and non-stationary checking of variable EXbd

pperron D_exbd

Number of obs = 23

Newey-West lags = 2

Table 7: unit root test EXBD : PP

	Test statistics	1% critical value	5% critical value	10% critical value
Z(rho)	−21.989	−17.200	−12.500	−10.200
Z(t)	−4.952	−3.750	−3.000	−2.630

MacKinnon approximate p-value for Z(t) = 0.0000

PP method of checking unit root testing is showing that the data is stationary as the dataset of t statistic of EXbd variable is more than the

critical value at 1%, 5% and 10%.

Stationary and non-stationary checking of variable IMi

pperron D_IMi

Number of obs = 23

Newey-West lags = 2

Table 8: unit root testing IMI : PP

	Test statistics	1% critical value	5% critical value	10% critical value
Z(rho)	-24.462	-17.200	-12.500	-10.200
Z(t)	-5.969	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.0000

PP method of checking unit root testing is showing that the data is stationary as the dataset of t statistic of IMi variable is more than the critical value at 1%, 5% and 10%.

Stationary and non-stationary checking of variable XR

pperron D_xr

Number of obs = 23

Newey-West lags = 2

Table 9:: Unit root test XR : PP

	Test statistics	1% critical value	5% critical value	10% critical value
Z(rho)	-15.312	-17.200	-12.500	-10.200
Z(t)	-3.213	-3.750	-3.000	-2.630

MacKinnon approximate p-value for Z(t) = 0.02

PP method of checking unit root testing is showing that the data is stationary as the dataset of t statistic of XR variable is more than the critical value at 5% and 10%.

Stationary and non-stationary checking of variable I

pperron D_i,

Number of obs = 23

Newey-West lags = 1

Table 10: Unit root test I : PP 32

	Test statistics	1% critical value	5% critical value	10% critical value
Z(rho)	−33.417	−17.200	−12.500	−10.200
Z(t)	−8.138	−3.750	−3.000	−2.630

MacKinnon approximate p-value for Z(t) = 0.0000

PP method of checking unit root testing is showing that the data is stationary as the dataset of t statistic of I variable is more than the critical value at 1%, 5% and 10%.

5.4: Regression analysis

5.4.1 OLS Multiple regression analysis

Table 11: Results of OLS regression

Regression Statistics	
Multiple R	0.96
R Square	0.93
Adjusted R Square	0.92
Standard Error	82.39
Observations	25.00

EXbd	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept variable	−361.59	142.76	−2.53	0.02	−658.47	−64.71
X Variable (IMi)	1.56	0.74	2.10	0.05	0.02	3.11
X Variable (XR)	7.91	3.66	2.16	0.04	0.29	15.53
X Variable (I)	65.46	36.00	1.82	0.08	−9.40	140.33

The regression analysis has been applied to show the significance of hypothesis that has been selected for the study. The OLS regression method has been applied where multiple regression analysis was applied to show the relationship between independent and dependent variables.

The regression statistics is showing that the value of multiple R is 0.96 where the value of R square is 0.93. The value of R square of 0.93 means that the data used in the multiple regressions is 93% observed in terms of its variability while target variable is analysed through the regression model. The adjusted R square in the statistics is found as 0.92 which also shows the variability is 92% right while using the regression model.

The standard error of regression statistics was found as 79.93 which means that the value has been distanced at 82.39 where the values observed in the model has been fallen from the line of regression model. Total observations used in the regression analysis were 25 where the period data from 1995 to 2019 was used to analyse time series data.

The analysis of p-value is showing that all variables are significant without the independent variable inflation rate because it is not significant as the value is 0.08 where the significant value is within 0.01 to 0.05. The OLS regression model is showing that all variables have positive coefficient value where it means that dependent and independent variables are going in the right direction where one unit increase in dependent variable would increase one unit of independent variable.

5.4.2: ARCH and GARCH model regression analysis

ARCH family regression

Sample: 1995 – 2019 Number of obs = 25

Distribution: Gaussian Wald chi2(3) = 286.01

Log likelihood = -140.6577 Prob > chi2 = 0.0000

Table 12: Result of ARCH and GARCH regression

EXbd	Coefficients	OPG Standard Error	z value	P>|z|	Lower 95%	Upper 95%
Intercept variable	−205.92	134.67	−1.53	0.03	−469.88	−58.03
X Variable (IMi)	2.19	0.60	3.62	0.00	1.00	3.37
X Variable (XR)	4.00	3.29	1.21	0.02	−2.46	10.46
X Variable (I)	78.63	35.13	2.24	0.07	9.77	147.49

ARCH	Coefficients	OPG Standard Error	z value	P>|z|	Lower 95%	Upper 95%
arch L1.	0.52	0.79	0.66	0.51	−1.02	2.07
garch L1.	0.57	0.89	0.64	0.52	−1.18	2.33
_cons	195.44	2025.43	0.10	0.02	−3774.33	4165.22

While applying ARCH and GARCH model of regression analysis, it is showing that the sample data of 25 observations was used from the period of 1995 to 2019 where the Chi square is 286.01 and the probability of the value is 0.00 which is less than the value of Chi square. The model is showing that all variables have positive coefficients which indicate that the value of independent variable and value of the dependent variable are going at the right direction.

The coefficient value of IMi variable is 2.19 which is a positive coefficient and the coefficient value of XR variable is also positive as the

value is 4.00. The independent variable I has the coefficient value of 78.63 which means that the value has positive coefficient. In ARCH and GARCH model, both variables were positively significant as values of independent variables were less than the Z value. But variable I was negatively significant as the p value of the variable was not significant. The standard of independent variables was 0.60 for IMi, 3.29 for XR and 35.13 for I variable.

H1. Dependent variable exporting products has a positive significant relationship with independent variable importing products

It could be seen from OLS regression model while exploring positive significance relationship between dependent variable exporting products and independent variable importing garment products from India is that the relationship significant because the p value of the independent variable is within the significance level 0.05 and the value is 0.05 which means that the variable has positive significance relations. ARCH model was applied to prove that the model has showed accurate results. While applying ARCH model, the p value of independent variable importing products was 0.00 which is less than the significance level 0.05 and it proves that the dependent variable EXbd has a positive significant relationship with the independent variable IMi. It means that the importing garment products from India would increase exporting products in India due to the good relationship between India and Bangladesh.

Therefore, the Hypothesis testing of H1 showed positive significant result.

H2. Dependent variable exporting products has a positive significant relationship with independent variable exchange rate

While testing the hypothesis H2, the dependent variable of exporting products in India and independent variable the exchange rate was taken.

The OLS multiple regression models was applied which showed that there is a positive significant relationship between dependent variable exporting products and independent variable exchange rate as the value of XR variable is within the significance level of 0.05 and the value was found as 0.04 and it showed the positive significance level between those variables. The study has also identified by using another regression model of ARCH model that a positive significant relationship could be found between two variables such as EXbd and XR. The independent variable has the p value of 0.02 which means that the value is within the significance level of 0.05 and a positive relationship exists between variables EXbd and XR. It means that the exporting products in India are dependent on the exchange rate as the exports of products would increase when the exchange rate would increase in the nation.

Therefore, the Hypothesis testing of H2 shows positive significant result.

H3. Dependent variable exporting products has a negative significant relationship with independent variable inflation rate

While exploring relationship between exporting garment products in India which is a dependent variable and inflation rate of Bangladesh which is an independent variable, a negative significant relationship was found between those variables where the p value of independent variable I is more than the significance level 0.05 and the value is 0.08. The study has also applied ARCH model to show that the result is negative or positive and it also shows the negative significant relationship between those variables of I and EXbd. The value of independent variable of I in ARCH model was found as 0.07 which is more than the significance level of 0.05 and it proves the negative significant relationship. It means that Bangladeshi garment owners would get lower price while exporting products in India when the inflation rate would increase in the nation and a negative relationship exists between these variables.

5.5: Findings and discussion

The relationship between exports of garment products from Bangladesh to India and imports of garment products from India to Bangladesh were explored and it was positive results as Bangladesh could grow its exports when trade relationship with India would be maintained. The variable has showed that more imports of garment products from India would encourage Bangladesh to exports more India to maintain trade benefits from exporting products. Another relationship was developed between variables exchange rate and exports of garment products from Bangladesh and it shows positive results because the increasing exchange rate would decrease the exports of garment products where decreasing exchange rate would increase exports of garment products.

The estimates for Bangladesh's exporting to India as a percentage of its entire garment trade with India, however, it shows a very subpar export performance for Bangladesh in its trade relations.

Only a minor portion of total commerce with India, as seen in the appendix table, is made up by exports from Bangladesh, which typically ranges around 10%. This obviously paints a troubling picture from Bangladesh's standpoint, showing that imports from India account for around 89 percent of all trade between the two countries, while exports from India to Bangladesh account for the remaining 11 percent. For example, this study has contributed that the exchange rate per dollar in taka has decreased and Indian buyers would get more products at lower rates and it would increase the exports of products to India. This study has contributed by showing negative significant between inflation rate and exports of garment products because it has identified that garment owners of Bangladesh have to buy resources of garment products at high

rate during increasing inflation and it would increase the price of garment products and it would result in decreasing number of exports products.

According to the appendix data collection table for 2015–16, Bangladesh's formal trade has a significant and ongoing trade imbalance as a result of this unequal trading relationship. The appendix of this table reveals that Bangladesh has a deficit every year over this time period, and that there has been no apparent improvement in the deficit's size or persistence. For instance, the total trade imbalance in 2015–16 was roughly $463.28 million USD, up from $297.48 million in 2009–10. Therefore, from Bangladesh's standpoint, the deficits are significant and ongoing.

Policies would be more favourable toward nations with comparable per capita incomes or nations with comparable characteristics and levels of development generally, in order to promote garment products trading between Bangladesh and India. Since bigger nations by size of the market likely to have mutual balances with tiny sizes, trade partnerships with growing economies would be particularly beneficial for rising economies. In this approach, industry concentration takes place, and consumers gain from the wide range of accessible products. The more advantages there are for prospective trade between countries, the more similar their demand structures are. Additionally, India will need to give their neighbors more priority if they were to profit so much from regional trading.

It has been determined that India and Bangladesh's bilateral development has increased. The pace of development in the private sector is likewise acceptable. Several Indian businesses, both public and private, have been engaged in numerous projects in Bangladesh. Remittances have emerged as one of Bangladesh's most important economic factors in recent years

due to their effectiveness in reducing the nation's trade imbalance. Remittances have increased fast in Bangladesh in recent decades and are now the second-largest source of foreign money inflow after ready-made clothing (RMG). Bangladesh's economic progress now includes a new aspect thanks to remittances. Policies would be more favorable toward nations with comparable per capita incomes or nations with comparable characteristics and levels of development generally, in order to promote trade among Bangladesh and India. Since bigger nations by volume of trade likely to have trade advantages with smaller ones; trade partnerships with growing economies would be particularly beneficial for rising economies. In this approach, industry specialization takes place, and consumers gain from the wide range of accessible products. The more advantages there are for prospective trade between countries, the more similar their demand structures are. Additionally, India will need to give their neighbors more priority if they were to gain so much from global commerce.

Given that India is Bangladesh's third-largest export market, export trade index value is higher than Import trade intensity index value. Due to the trade variations between Bangladesh and India and other factors employed in trade, this is the biggest distinction between the trade intensity indices. Over the course of the entire era, India exported a significantly greater quantity of goods to Bangladesh than it imported from Bangladesh. The Export Index value, which ranges from 20.44 to 4.22 from 2001 to 2011, is significantly higher than the Import Index value, which ranges from 1.65 to 0.87. The increased value of exports from India to Bangladesh is the primary factor contributing to the export intensity index's higher value.

Bangladesh has a substantial trade deficit with India through its informal trade of garment products which is mentioned in various researches on

the topic (reported at an estimated USD 4 billion). Thus, from Bangladesh's standpoint, the total public and private trade gap is enormous and obviously unstable. In light of this, even a higher average annual growth rate of export sales to India (37.73%) especially in comparison to yearly total import growth (28.38%), as shown in the appendix table but from a relatively small regional economy for Bangladesh even with a very tiny portion of Bangladesh exported goods to India to its trade volume with that country, could not have any meaningful impact on the reduction of the deficit.

5.6: Future area of the study

This study has explored the trade performance of Bangladesh while using exporting of garment products and showing its trade relation with India and this study would be used for future purposes. Researchers could use new variables in the future while adding something new in this related topic where this study has only included three variables where more variables were not selected due to lack of time and new variables could show different results. Therefore, some information was not available on some variables which could be available in the future.

This study could be explored in the future within a different timeline as this study has explored the timeline of 1995 to 2019 for 25 years and the data of 2020, 2021 and so on could be added on the future to see the future condition of trade performance of Bangladesh with India while exporting garment products. In the study, OLS regression model was used which showed significant positive results for the study but different regression models such as the Gravity model or other panel data model could be applied in the future on the related topic.

The scope of the study is limited within the trade performance of Bangladesh with exporting products in India but more countries could be

added in the future to see the trade performance of Bangladesh with other countries with using different models and variables. Some variables could be used in the topic for the future such as government policies, FDI, GDP growth, income tax, tariff rates and transportation costs which could be added as independent variables on the topic and future researchers could explore those variables in the topic. A specific location could be chosen of India where this study has explored the whole India but Bangladesh has different export performance in different states of India where some locations taking in the study could show different findings.

Chapter 6: Conclusion and recommendations

6.1: Conclusion

As a result, the imbalance situation is not just greater when internal and external trades are considered together but the gaps are also ongoing and these should be a primary consideration for political decision-makers in both countries. It becomes obvious that more proactive policy action on the side of both nations would be suggested to achieve the balance of payments of India and Bangladesh and make it sustainable over the long term in order to attain balance of trade improvement more quickly. India, the larger and more powerful of the two nations, might implement a number of legislative measures to increase Bangladeshi exports' access to the greater Indian market. The primary source of income for Bangladesh is the ready-to-wear sector.

It is essential to the country's economic growth since it generates foreign exchange and supports higher economic performance (Bari, 2021). With an eye on international trade, this study attempted to examine the price and quantity side aspects affecting Bangladesh's readymade clothing.

Additionally, by using the OLS model estimation, it also attempted to determine if there are any rooms available for exporting in India. The estimated outcome demonstrates that factors such as imports, inflation and exchange rates have a positive impact on Bangladesh's RMG exports. The proximity between trading partners, on the other hand, has a negative impact on RMG export. The OLS regression and other conceptual approaches are in agreement with these findings. Using time-series aggregates and garment products specific statistical information for further recent decades than any other studies, this paper empirically

analyzed the trading profile, trade trends, and economic relations between Bangladesh and India. This study used much more recent figures but also surrounded topic areas that had not previously been covered by other studies. Since some subjects (including such trade trends and the growing bilateral trade imbalance) were covered by other studies that are now out of date, this study used data that was more recent. The latter issue areas cover both intra-industry trade, which is based on economies of scale and product differentiation, as well as inter-industry trade, which is based on the conventional comparative advantage theory and associated assessment of exposed market economics.

Prospects for trade and investment can be very beneficial for neighboring nations like Bangladesh and India. The potential for increased trade between the two nations partly depends on their trade co - operation, which is currently modest but increasing, as well as in portion on their respective economic imbalances. Internal bilateral trade between Bangladesh and India is the other major factor in bilateral trade. Since trade in related product categories has been increasing, it has the chance to expand greatly and might strengthen industrial connections between 2 countries.

6.2: Recommendations

After analyzing findings of the above discussion, it could be seen that Bangladesh has a good trade performance with India and to get more benefits, some recommendations are given which should be followed by garment owners and garment associations of Bangladesh -

- The findings shows negative relationship between inflation and exporting of garment products and Bangladeshi garment owners should be careful while exporting garment products during high

inflation rate in the nation as they would get lower prices during high inflation rate and Indian buyers would try to import more garment products from the nation. Another solution is that garment owners can fix prices of garment products according to the inflation rate or the exchange rate in dollar price so that they can get proper value. Garment owners would get good trade performance when the exchange rate between Bangladesh and the USA market is stable and the value of Bangladeshi Taka is high in the market (Rahman and Akter, 2020).

- The study gave some serious thought to the problem of trading expenses in addition to analyzing market access. The already high transaction costs of Bangladesh's and India's trade systems are increased by onerous and complicated cross-border trading procedures. An OLS model of global trade is used to create an extensive measure of trade costs. According to the report, enhanced trade facilitation together with local transportation would aid in boosting partnership between the two nations. Additionally, there is substantial evidence that streamlining trade-related paperwork and enhancing the effectiveness of administrative and regulatory procedures would help to facilitate their trading.
- The anticipated trade results show that an FTA will significantly encourage Bangladesh to enhance its market share in India. As duty-free access to the single market started opening with the FTA, it is also expected that both nations would experience a significant growth in export earnings to one another. However, Bangladesh would require a sufficient growth of its interior and global infrastructure as well as administrative capability for handling bilateral commerce for it to fully profit from certain market access and increase its exports to India (Sarker and

Rahman, 2019).

- A bilateral FTA must include collaboration in investments, financing, commodities trade, import substitution, and technology transfer in addition to any pact centered solely on trade in goods. Although there may be some welfare loss risks for Bangladesh due to trade divergence in a joint FTA (such risks are low given that India is a dominant competitive provider), there may be much greater benefits from prolonged trade relations in the areas of investment and services trade. Additionally, both nations would benefit from continued trade liberalization, streamlined border processes, better physical connectivity and trade facilitation. Through infrastructure investment, India may support the development of economic ties between Bangladesh and itself. To ease the congestion brought on by the development of the overall private sector, one solution would be to reinvest in coastal and border infrastructure. This would entail a plan for building infrastructure after attracting private capital. Another choice would be for both governments to use infrastructure construction as a catalyst for international and local expansion.

6.3 The contribution of the study

The contribution of the study is that it has analysed the trade performance of Bangladesh while trading garment products exports-imports with India. This study has also contributed in identifying trade performance of Bangladesh and how it can increase the economic growth of Bangladesh. The study is based on achieving main objectives of the study where three objectives were identified and this study has discussed different literature sources and reviews from which the

researcher has developed research questions of the study.

The existing gaps in previous researches were identified which has helped to build hypothesis of the study and this study has identified some new variables which were not analysed in earlier studies. From identifying previous literature sources, it was analysed that three variables would be selected such as imports of garment products from India, inflation rate and exchange rate. This study has contributed by showing three new results which were not identified in previous studies of the related topic.

The relationship between exports of garment products from Bangladesh to India and imports of garment products from India to Bangladesh were explored and it was positive results as Bangladesh could grow its exports when trade relationship with India would be maintained. The variable has showed that more imports of garment products from India would encourage Bangladesh to exports more India to maintain trade benefits from exporting products (Obaidur et al., 2019). Another relationship was developed between variables exchange rate and exports of garment products from Bangladesh and it shows positive results because the increasing exchange rate would decrease the exports of garment products where decreasing exchange rate would increase exports of garment products.

For example, this study has contributed that the exchange rate per dollar in taka has decreased and Indian buyers would get more products at lower rates and it would increase the exports of products to India. This study has contributed by showing negative significant between inflation rate and exports of garment products because it has identified that garment owners of Bangladesh have to buy resources of garment products at high rate during increasing inflation and it would increase the price of garment products and it would result in decreasing number of exports products (Shamsul, 2020).

It will provide latest results that will be helpful for the imports and exports of various countries to invest and appreciate trade business of garments due to its rapid growth and demand. The research is referred and backed by the adequate journals and a valid data has been acquired so the outcomes of the study will definitely be helpful for the academicians, marketers and traders. Trade policies makers can amend the policies in order to check the growth of trade garments between Bangladesh and India. The research thesis will be helpful for the trade sector of governments in order to inline the SOPs where the foreign investment and better GDP contribution can be obtained.

This study would contribute to the government of Bangladesh by showing the significance of exporting garment products in India and the importance of maintaining good relationship with India to sustain economic growth. It would also contribute to the existing researchers who want to analyse relative performance of Bangladesh while exporting products in trading and future researchers would get help from the study in the future after 5 to 10 years when they would use this study to identify gaps and limitations and they develop a study by solving gaps and limitations of the study. This study has used some methods which can contribute to show the significance of using different methods and the relativity of using time series analysis in this type of research and how it produces results (Alamgir and Banarjee, 2021). Therefore, this research can also contribute in the national economic and social development of the country.

References

Adhikari, R. Y. (2017). The Textile and Clothing Industry: Adjusting to the Post-Quota World. *Sustainable Development Perspectives* , 183-234.

Adhikari, R., & Yamamoto, Y. (2018). *Textiles and Clothing Industry Adjusting to the Post-Quota world, Unveiling Protectionism: Regional Responses to the remaining barriers in the textiles and clothing trade.* UNESCAP.

Ahmed, N. (2019). Sustaining ready-made garment exports from Bangladesh. *Journal of Contemporary Asia , 39(4)*, 597-618.

Aladag, C., 2019. Forecasting nonlinear time series with a hybrid methodology. *Applied Mathematics Letters*, *22*(9), pp.1467-1470.

Alamgir, F. and Banerjee, S.B., 2021. Contested compliance regimes in global production networks: Insights from the Bangladesh garment industry. *Human Relations*, *72*(2), pp.272-297.

Bari, M.S., 2021. 21st CENTURY INDIA AND BANGLADESH BETWEEN CONSIDERING TRADE RELATION OPPORTUNITIES AND CHALLENGES. *JBFEM*, *4*(1), pp.19-26.

Basu, R. and Dutta, S., 2019. Industrial development through tacit knowledge seeding: evidence from the Bangladesh garment industry. *Unpublished Working Paper*.

Bhattacharya. (2020). The Post-MFA Challenges to the Bangladesh Textile and Clothing Sector. *Sustainable Development* , 12-16.

De, P. and Bhattacharyay, B.N., 2017. Prospects of India－Bangladesh Economic Cooperation: Implications for South Asian Regional Cooperation.

Dexter, A.S., Levi, M.D. and Nault, B.R., 2015. International trade and the connection between excess demand and inflation. *Review of*

International Economics, *13*(4), pp.699-708.

Dielman, T.E., 2020. Pooled cross-sectional and time series data: A survey of current statistical methodology. *The American Statistician*, *37*(2), pp.111-122.

Fisher, M.J. and Marshall, A.P., 2019. Understanding descriptive statistics. *Australian critical care*, *22*(2), pp.93-97.

Gazi, N., 2018. Compliance versus accountability: Struggles for dignity and daily bread in the Bangladesh garment industry. *The Bangladesh Development Studies*, pp.21-46.

Gautam, S. (2019). Analysing competitiveness and trade performance: evidence from Indian textile industry and its select competitors. *Transnational Corporation Review* , 406-426.

Gupta, T., 2020. The garment industry in Bangladesh. *Dynamics of the Garment Industry in Low-Income Countries: Experience of Asia and Africa (Interim Report). Chousakenkyu Houkokusho, IDE-JETRO*, *6*, p.29.

Gylfason, T., 2011. Exports, inflation and growth. *World Development*, *27*(6), pp.1031-1057.

Haider, M.Z., 2017. Competitiveness of the Bangladesh ready-made garment industry in major international markets. *Asia-Pacific Trade and Investment Review*, *3*(1), pp.3-27.

Imai, C. and Hashizume, M., 2014. Systematic review on methodology: time series regression analysis for environmental factors and infectious diseases. *Tropical medicine and health*.

Islam, C., 2013. Prospects of bilateral trade between India and Bangladesh. *Foreign Trade Review*, *41*(1), pp.27-45.

Islam, M.S. and Liang, G.Q., 2018. Supply chain management on apparel order process: A case study in Bangladesh garment industry. *Asian Journal of Business and Management Sciences*, *2*(8),

pp.60-72.

Islam, S. (2020). The Textile and Clothing Industry of Bangladesh in a Changing World Economy. *Centre for Policy Dialogue* , 07-12.

Jinhwan, O., & Rashedur, S. R. (2013). *INTERNATIONAL TRADE OF BANGLADESH.* Review of Urban and Regional Development Studies.

Kabir, M., & Surender Singh, e. a. (2019). The Textile-Clothing Value Chain in India and Bangladesh. *Policy Research Working Paper 8731* , 05-07.

Kabeer, N., 2016. Cultural dopes or rational fools? Women and labour supply in the Bangladesh garment industry. *The European Journal of Development Research*, *3*(1), pp.133-160.

Kartik, S., 2019. Impact of logistics performance on trade with specific reference to garment sector in Cambodia, Bangladesh and India. *Global Business Review*, *22*(2), pp.517-531.

Kelly, P., 2018. Trade, industry and economic growth in Bangladesh. *Journal of Economic cooperation*, *29*(4), pp.71-92.

Khanna, P., 2011. Making labour voices heard during an industrial crisis: workers' struggles in the Bangladesh garment industry. *Labour, Capital and Society/Travail, capital et société*, pp.106-129.

Lee, Y.S. and Tong, L.I., 2011. Forecasting time series using a methodology based on autoregressive integrated moving average and genetic programming. *Knowledge-Based Systems*, *24*(1), pp.66-72.

Lendasse, A., 2017. Methodology for long-term prediction of time series. *Neurocomputing*, *70*(16-18), pp.2861-2869.

Lim, M.G. and Papi, M.L., 2017. *An econometric analysis of the determinants of inflation in Turkey*. International Monetary Fund.

Mostafa, R. and Klepper, S., 2018. Industrial development through tacit

knowledge seeding: Evidence from the Bangladesh garment industry. *Management Science*, *64*(2), pp.613-632.

Mottaleb, K.A. and Sonobe, T., 2015. An inquiry into the rapid growth of the garment industry in Bangladesh. *Economic Development and Cultural Change*, *60*(1), pp.67-89.

Muktadir-Al-Mukit, D., Shafiullah, A.Z.M. and Ahmed, M.R., 2019. Inflation led import or import led inflation: Evidence from Bangladesh. *Asian Business Review*, *2*(2), pp.65-69.

Obaidur, S., Uddin, M.K., Antony, J., Gupta, S. and Cudney, E.A., 2019. An empirical study to investigate the effects of critical factors on TQM implementation in the garment industry in Bangladesh. *International Journal of Quality & Reliability Management*.

Onafowora, D., 2013. Bilateral trade between India and Bangladesh: A general equilibrium approach. *Economic Systems Research*, *18*(3), pp.257-279.

Rahman, S.M. and Akter, H., 2020. Bilateral trade relation between Bangladesh and Australia. In *The Economic Development of Bangladesh in the Asian Century* (pp. 29-62). Routledge.

Rose, K., 2011. Trade patterns of Bangladesh with India and China: An empirical evidence of the PPP theory. *Journal of Regional Economic Studies*, *2*, pp.26-34.

Rahman, M. M., & Zheng, e. a. (2014). The Trade Performance of Bangladesh in Clothing. *China-USA Business Review,ISSN , Vol 03*, 02.

Razzaq, M. A., & Raihan, S. (2017). Trade and Industrial Policy Environment in Bangladesh With Special Reference to Some Non-traditional Export Sectors, Dhaka. *Non-traditional Export Sectors, Dhaka* , 03-06.

Rock, M. (2021). *Globalisation and Bangladesh: The case of export-*

oriented garment manufacture. Journal of South Asian Studies.

Sarker, M. N. (2019). Geopolitical Influence and Trade between Bangladesh and India. *Bangladesh Journal of Public Administration , 27(2).*

Sarker, M.N.I. and Rahman, M.Z., 2019. Geopolitical influence and trade between Bangladesh and India. *Bangladesh Journal of Public Administration*.

Shamsul, M.R., 2020. Made in Bangladesh: challenges to the ready-made garment industry. *Journal of International Trade Law and Policy*.

Singh, N., 2012. Indo-Bangladesh economic relations: some thoughts. *Economic and Political Weekly*, pp.4069-4075.

Sobhan, S.I. and Farooq, N., 2021. Supply chain management offering the new paradigm for Bangladesh garment industry. *Journal of Economics and Sustainable Development*, *4*.

Taslim, M.K., 2012. Trade relations with SAARC countries and trade policies of Bangladesh. *Journal of Economic Cooperation*, *21*(3), pp.99-151.

Ter Haar, B. and Keune, M., 2019. One step forward or more window-dressing? A legal analysis of recent CSR initiatives in the garment industry in Bangladesh. International Journal of Comparative Labour Law and Industrial Relations, 30(1).

Ülke, V. Jafar, t. and Balli, F., 2018. Impact of Exported Turkish Soap Operas on Turkey's Bilateral Trade. *PROCEEDING BOOK*, p.84.

Vergil, S., 2012. Growth and Pattern of Intra-Industry Trade between India and Bangladesh: 1975-2010. *The Journal of International Economic Policy*, (2), p.21.

Waheduzzaman, S.C., 2019. Social impact of the growth of garment industry in Bangladesh. *The Bangladesh Development Studies*, pp.41-80.

Younus, K., Rather, Z.A. and Gupta, D., 2016. India-Bangladesh bilateral trade: Problems and prospects. *International Affairs and Global Strategy*, *22*(1), pp.42-48.

Appendix 1) Collected data

Import of garment products from India to Bangladesh

Year	Imported products (In million dollars)	Year	Imported products (In million dollars)
–		2007	65.46
1995	24.56	2008	89.91
1996	26.65	2009	167.2
1997	20.4	2010	136.37
1998	32.62	2011	158.4
1999	40.11	2012	189.22
2000	24.96	2013	162.03
2001	33.92	2014	124.46
2002	29.82	2015	135.22
2003	27.06	2016	178.21
2004	24.65	2017	134.22
2005	38.86	2018	151.22
2006	76.26	2019	176.04

Exchange rate of Bangladesh taka with US dollars

Year	Exchange rate (From dollar to taka)	Year	Exchange rate (From dollar to taka)
–		2007	62.35
1995	40.12	2008	69.89
1996	41.32	2009	76.34
1997	42.22	2010	81.81
1998	43.28	2011	79.01
1999	44.31	2012	77.57
2000	43.89	2013	77.33
2001	46.90	2014	77.75
2002	49.08	2015	78.60
2003	52.14	2016	78.12
2004	58.16	2017	79.22
2005	57.75	2018	84.31
2006	55.80	2019	83.37

Export of garment products from Bangladesh to India

Year	Exported products (In million dollars)	Year	Exported products (In million dollars)
–		2007	356.32
1995	56.4	2008	489.61
1996	57.3	2009	521.2
1997	87.13	2010	537.6
1998	105.3	2011	522.4
1999	19.1	2012	691.6
2000	133.8	2013	704.22
2001	168.08	2014	715.28
2002	112.23	2015	589.76
2003	128.26	2016	672.33
2004	162.68	2017	822.34
2005	187.52	2018	823.12
2006	224.96	2019	872.01

Inflation rate of Bangladesh per year

Year	Inflation rate (In percentage growth)	Year	Inflation rate (In percentage growth)
–		2007	1.46
1995	0.56	2008	1.91
1996	0.65	2009	1.2
1997	0.4	2010	2.37
1998	0.62	2011	2.4
1999	0.11	2012	2.22
2000	0.96	2013	2.03
2001	0.92	2014	2.46
2002	0.82	2015	2.22
2003	1.06	2016	3.91
2004	1.65	2017	3.22
2005	1.86	2018	3.22
2006	1.26	2019	2.54

국 문 초 록

- 방글라데시 의류부문의 인도와의 교역실적 -

한 성 대 학 교 대 학 원
국 제 무 역 경 제 학 과
국 제 무 역 시 장 전 공
사 피 쿨

방글라데시는 지리적으로 3면이 인도와 국경을 접하고 있으며, 남쪽으로는 벵골해, 남동쪽으로는 미얀마와 국경을 접하고 있습니다. 개발도상국의 작은 경제임에도 불구하고, 방글라데시는 그들의 가까운 물리적 근접성과 우호적인 정치적, 외교적 관계를 제공해왔습니다. 방글라데시와 가장 큰 이웃이 많은 사업을 함께 할 것이라는 것은 이치에 맞습니다. 이 연구는 이러한 배경에 비추어 이 두 나라 사이의 무역에 대한 초기 발견을 제공합니다. 더 정확히 말하면, 그것은 국제 무역에서 두 나라의 상대적 위치를 탐색하고 종합 수준의 데이터를 사용하여 무역 수지의 추이뿐만 아니라 인도에 대한 수출과 수입의 전반적인 패턴을 분석하였습다. 이 연구는 인도가 방글라데시에 비해 세계 무역에서 상당히 강한 위치를 차지하고 있고 또한 무역 협정에 있어서 인도가 방글라데시를 크게 능가하고 있기 때문에 방글라데시가 인도와의 무역 불균형을 매우 심각하고 지속하고 있기 때문이라고 결론짓습니다. 이 연구는 UNCTAD와 세계은행과 같은 국제기구들뿐만 아니라 국가 정보원으로부터 수집된 정보를 이용했다. 학계, 연구원, 방글라데시, 인도의 정책 입안자들, 그리고 여러 글로벌 기업들, 연구 기관들, 그리고 무역 전문가들은 그 기사가 흥미롭다고 느낄 것입니다.

키워드: 무역실적, 의복부문, 방글라데시, 인도, 인플레이션, 수출, 수입, 환율