



## Sustainable Environment to the Development of RMG Sectors in Bangladesh: A Quantitative Analysis of the RMG Sectors in Bangladesh

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### ABSTRACT

**Purpose:** The purpose of this study was to spot the character of property surroundings, RMG, export performance, evaluation factors, earnings and therefore the difficulties and barriers sweet-faced within the international additionally as native market. The broad project objective is to analyze the sustainable environment and the garment sector of Bangladesh and relate the knowledge with the practical experience.

**Introduction:** nearly each country no matter its stage of development is engaged in garment producing and commerce. This trade migrates from high-wage to low-wage countries sort of a "flying goose". Almost, with none exception, traditionally, the readymade trade was the primary trade a rustic was ready to introduce, that eventually diode to the event of different industries. Literature review: Literature review shows that when the liberation industrial base here in Asian country had to face a sharp vacuum of entrepreneurs (who were principally from West Pakistan). However, towards the 1980's a replacement industrial venture particularly clothes producing factories began to grow with some favorable policy support from the govt. and advantageous treatment of major attire commercialism countries by secure share of their market. It additionally shows however properly surroundings contribute to the event of the RMG sector in Asian country.

**Methods:** the information assortment methodology may be a primary survey on workers of garment, trade, apparel industry, fashion industry, fashion business, rag trade, industry and consultants of a similar industry supported by secondary analysis on previous analysis, trade report, government paper, and interview of resource persons.

**Analysis:** SPSS analysis and Conclusions: The findings show that garment staff square measure sad with their operating surroundings and concerning their pay package.

This paper additionally shows that the Bangladeshi garment sector may be a leading garment producing trade within the world that has been growing perpetually throughout the last decades. In this thesis project the author used the literature to grasp the present establishment of the operating surroundings within the garment sector and to spot the most important factors that influence, impact and contribute in creating the labor standards low. The author used the interviewing methodology to collect facts and opinions of the present system and to prepare the data and draw the standing of the system. Finally, the author provided recommendations to enhance the operating surroundings and distribute the advantages among staff, employers and government, guaranteeing the plane figure long growth and therefore the important advantages for world consumers.

**Keywords:** RMG= Ready-Made Garments, BGMEA = Bangladesh Garment Manufacturer Employer Association, WC = Working Conditions, EPZA = Export Processing Zone Authority WTO=World Trade Organization.

## 1. Introduction

### 1.1 Introduction:

Bangladesh, the southern Asian nation has a populace of roughly 169 million individuals. The economy of Bangladesh is essentially subject to farming. However, it's incredible information for the nation that, readymade articles of clothing (RMG) area of Bangladesh have ascended as the greatest worker of unfamiliar money. This area makes around 4.2 million business amazing open doors and contributes fundamentally to the GDP. Readymade articles of clothing (RMG) of Bangladesh are controlled by youthful, urbanizing, laborers, where the greater parts of them are ladies. The Ready - Made Garments (RMG) area of Bangladesh has arisen as the greatest worker of unfamiliar cash. The RMG area has encountered dramatic development since the 1980s.

The area contributes essentially to the GDP. A staggering number of laborers in this area are ladies. This has impacted the economic wellbeing of numerous ladies coming from low pay families. Bangladesh-beginning items fulfilled quality guidelines of clients in North America and Western Europe, and costs were good. Business thrived right all along; numerous proprietors made back their whole capital speculation in something like a little while and from there on kept on acknowledging extraordinary benefits. Approximately 85% of Bangladeshi creation was offered to North American clients, and

practically short-term Bangladesh turned into the 6th biggest provider toward the North American market. After unfamiliar organizations started fabricating an instant article of clothing industry, Bangladeshi entrepreneurs showed up, and a genuine surge of them started to sort out organizations in Dhaka, Chittagong, and more modest towns, where fundamental articles of clothing - men's and young men's cotton shirts, ladies' and young ladies' pullovers, shorts, and child garments - were cut and collected, pressed, and sent to clients abroad (for the most part in the United States). As per a few evaluations, around 80% were ladies, which were never seen beforehand in the modern labor force. Large numbers of them were tragically come up short on and worked under brutal circumstances. The net advantage to the Bangladesh economy was just a small portion of commodity receipts, since basically all materials utilized in piece of clothing fabricate were imported; essentially all the worth included Bangladesh was from work.

Current business world is profoundly serious and laborers are contributing as much as vital than the beyond couple of many years. They are associated with strategy definition to dynamic in the mind boggling business climate. Manageable climate envelops a variety of exercises that upgrade the capacity of all people to arrive at their most noteworthy potential, where Bangladesh is a long ways behind from legitimate usage of this valuable chance to further develop expertise and proficiency of HR in the readymade pieces of clothing industry. Quantitative techniques have been utilized in this paper to break down specialists' mentalities toward the practical climate in Bangladesh particularly in the RMG area of Bangladesh and estimation of the laborers disposition about the ongoing advancement of natural maintainability around here. Instruction, Government drive, NGO drive, preparing program, profession advancement program, execution the board improvement and so forth were the marks of natural supportability. Laborers of the RMG area in Bangladesh are not happy with the drives taken by the administration of the association and government. The specialist recommended the majority of those variables must be worked on in the RMG area of Bangladesh for taking upper hand on the planet market.

### ***1.2 Background of the Study:***

In this review, the creator attempted to figure out the thing is missing of the proprietors of the RMG areas towards the presentation upgrades of our pieces of clothing industry. The creator figured out that the laborers are the key achievement variables of that industry. The article of clothing industry contributes the most elevated part of our nation's GDP. So upgrading the presentation of that industry as far as decreasing the dissatisfactory elements of the laborers might drive our country from creating to a created one is the main purpose of this research.

### ***1.3 Objectives of the Study:***

#### ***1.3.1 Primary Objective:***

#### ***1.3.2 Secondary Objectives:***

To arrive at the expansive goal, a few explicit targets are distinguished. These are:

- To know the various parts of the piece of clothing industry, its possibilities and issues.
- To distinguish the grouping of Ready Made Garment items and highlights of the Product.
- To know the commodity execution of Bangladesh articles of clothing in the global market.
- To know the profit from the RMG area in Bangladesh.
- To distinguish the hardships and boundaries looked in the global market.

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## **2. LITERATURE REVIEW**

### ***2.1 Literature Review on Environmental Sustainability***

Several works and writings have been done on environmental sustainability, sustainable growth and readymade garment over the years. This chapter takes a look at the term Sustainability, Environmental Sustainability and how it helps to develop RMG sectors in Bangladesh.

#### ***2.1.1 Environmental Sustainability***

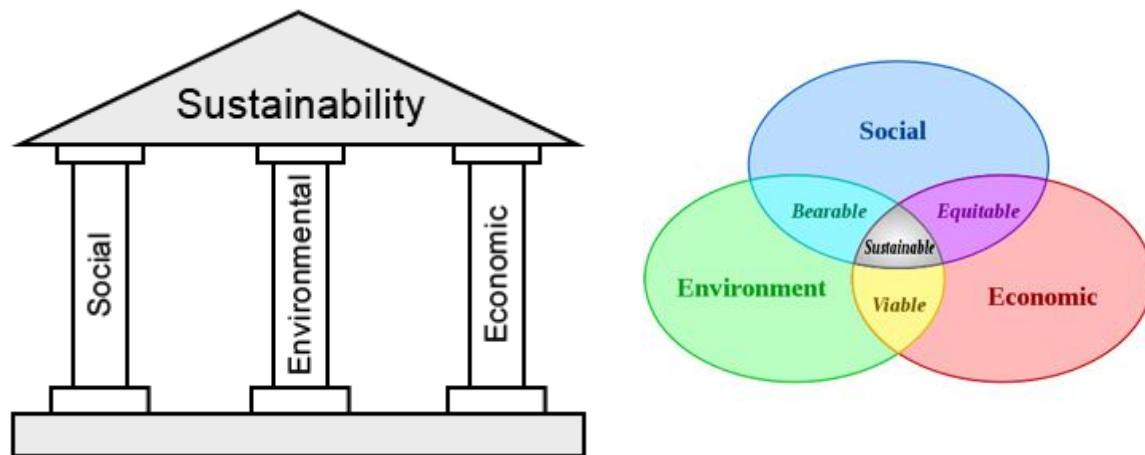
The idea of sustainability, which at the very least considers how people can live on the planet over time in a way that safeguards biological and cultural diversity, acknowledges and appreciates ecological limits, provides fair and accountable governments and economies for everyone, and makes use of the human capacity for innovative and adaptive learning, presents a huge challenge for education (Glasser & Calder 2005). It necessitates that educational institutions reevaluate their missions and redesign their programs, top-priority areas for research, community engagement, and campus operations. Integrating sustainability into all of the key activities of educational institutions also presents a huge opportunity because it will better equip students and the entire campus community to make decisions in the increasingly complicated, dynamic, and uncertain future that we all face.

We must first define sustainability before we can define environmental sustainability. The capacity to carry out a certain behavior indefinitely is known as sustainability. We consult experts to explain what environmental sustainability is. One of the early proponents of ecological sustainability, Herman Daly, approached the issue from the perspective of maintaining natural capital. He suggested in 1990 that:

- **For renewable resources**, the rate of harvest should not exceed the rate of regeneration (sustainable yield);
- **For pollution**, the rate of waste generation from projects should not exceed the environment's capacity to absorb it (sustainable waste disposal); and
- **For nonrenewable resources**, the depletion of nonrenewable resources should necessitate the development of renewable substitutes for that resource in a manner that is comparable.

Realizing sustainable development and the requirement to preserve a balance between the environment, economy, and man have emerged as the most urgent objectives facing communities, business organizations, governments, and the entire world. Interaction between developing and developed countries is taking place in an effort to create a sustainable environment.

The sustainability pillars are an effective tool for outlining the overall sustainability issue. This includes at the very least the social, economic, and environmental foundations. The system cannot be sustained as a whole if even one pillar is weak. The three pillars are shown in two popular ways.



## 2.2 History and Development of the Readymade Garment Industry in Bangladesh:

In the 60th decade of the 19th century, the foundation of the textile industry was initially laid. In 1965–1966, the industry exported shirts (the Mercury shirt), made in Karachi, for the first time to the European market. Nine exporting industries were available in the latter in 1977–1978. Riaz Garments, Jewel Garments, and Paris Garments were at that time the three biggest industries. The most well-known and established of these was Riaz Garments at the time.

Along with the Reaz store in Dhaka, the RMG sector's history began in 1960. They changed the name of the business to Reaz Garments Ltd. later in 1973. Reaz Garments began boosting Bangladesh's garment market in 1978 by selling 10,000 shirts in Paris for 13 million francs for the first time. Only nine garment manufacturing facilities, large and small, were running throughout the nation at the time. As a result, these manufacturers only made a few million dollars from exports. However, these firms also marketed goods in the neighborhood market in addition to exports.

The RMG industry in Bangladesh began its journey through Riaz Garments, but the late Mr. Noorul Quader Khan was regarded as its founder. He invested 1.3 million USD in the construction of Bangladesh's first textile factory focused solely on exports, Desh Garments, in 1979. An important factor in the growth of Bangladesh's RMG industry has been Desh Garments. Mr. Qadir has the foresight to prepare the nation's youth for future leadership positions in business. 130 trainees were dispatched to the Daewoo Corporation's Pusan facility in South Korea that same year to receive training in order to create a skilled work force for the production of ready-made clothing. They returned to Bangladesh following their six-month training to establish the main human resource base of RMG sector.

Desh Garments currently has 600 staff, six production lines, and a capacity to produce 5 million garments annually. Jute and jute products, also referred to as the "golden fiber of Bangladesh," made up more than half of Bangladesh's entire export earnings up until the year 1980. However, as exports in the RMG industry grew, they eventually overtook those of jute and jute products after the 1980s. RMG Industry has since dominated Bangladesh's export market.

At the same time, a number of other businesspeople established their factories, including retired Major Abdul Mannan's Sunman Group, M Shamsur, Rahman's Stylecraft Limited, and AM Subid Ali's Aristocrat Limited, as well as Akhtar Mohammad Musa's Bond Garments, Mohammad Humayun's Paris Garments, Azim Engineer Mohammad Fazlul Azim's Azim Group, and Azim Engineer Mohammad Fazlul The Bangladeshi government granted permission to import duty-free garment machines to create export goods during the beginning of the 1980s. As a result, Bangladesh saw a sharp rise in the number of garment factories. In Bangladesh, there were 632 factories in 1984–1985, while there were over 2900 in 1999.

The exports of the RMG business were just 4.8 billion USD in the fiscal year 2000-2001; by the fiscal year 2010-2011, they had almost doubled to approximately 18 billion USD, growing at a rate of almost 14 percent yearly. A report from 2019 claims that the government of the nation established an EPZ, which grants foreign investors a 10-year tax holiday, duty-free importing of machinery, raw materials, and bonded warehouses, and initiatives like

back-to-back LCs have all been crucial in 100% export-oriented garment facilities. These are the causes of the nation's exports' rapid expansion. At the same time, the nation was home to over 5,000 garment factories that employed over 3.5 million people. Foreign direct investment in Bangladesh's RMG industry averaged \$871 million between 2005 and 2010.

Two garment workers were killed in a clash in July 2009, costing Hameem Group, the biggest clothing manufacturer in the nation, Rs 100 crore. In 2012, a fire at the Tazreen factory resulted in at least 112 fatalities and more than 200 injuries. The Rana Plaza building fell down in the same year, killing over 1,100 people and injuring over 2,500 more. Following such an instance, many overseas consumers backed off and stopped purchasing Bangladeshi clothing. The special tariff advantages for Bangladesh were likewise suspended by the US.

To prevent such disastrous mishaps, factory owners invest more than a billion dollars on remediation projects. To address problems with factory structures, fire control, and other concerns, hundreds of factories should be shut down in addition to the creation of the Accord on Fire and Building Safety, the Alliance for Bangladesh Worker Safety, and the National Initiative of the Government of Bangladesh. By considerably enhancing occupational safety, Bangladesh was able to reach 84.1 percent rehabilitation by 2018.

As a result of these activities, the country's RMG sector saw growth and export volume doubled. The export revenue for the RMG industry was 19.08 billion USD in the Fiscal Year 2011–2012, but it rose to 31.45 billion in the Fiscal Year 2020–2021. Bangladesh currently boasts more green clothing manufacturers than any other nation in the world.

Bangladesh, because of its abundant cheap labor, is without a doubt the largest threat to China's apparel industry, even though the gap between their exports is still wide (McKinsey, 2011). The importance of the apparel industry to the Bangladeshi economy is highlighted in the table below:

Number of Workers	4mln
Number of Factories	5400
Export Total	24bil \$
RMG	19 bil \$
Share of RMG on Total Export	79%

Table: Statistics of the Bangladeshi RMG Sector.

Source: BGMEA (2013), WTO (2011)

### 2.5 RMG industry of Bangladesh: The future:

It's projected that RMG would continue to develop despite the global financial crisis of 2009. In light of China's escalating labor costs, many international investors are moving their factories to Bangladesh in order to take advantage of lower labor prices. There are a variety of local accessories being produced, including zippers and buttons, labels and hangers as well as elastic bands and thread.

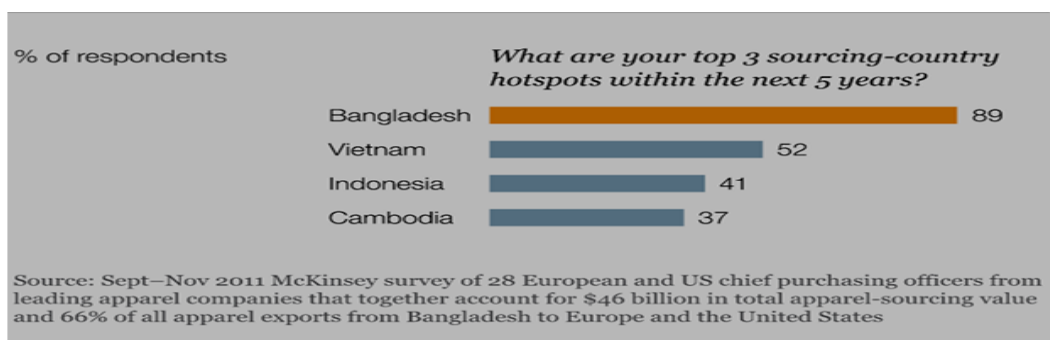
In most situations, garment purchasers prefer to buy accessories from global firms operating in Bangladesh rather than from local vendors because of their superior quality and variety.

Bangladesh has gone a long way from its humble beginnings and is now one of the world's ten new rising economies. We have a stable macroeconomic environment, 6% annual GDP growth, high remittances and exports, a strong foreign currency reserve, and tremendous social and human progress in the last decade.

We need to safeguard Bangladesh's RMG industry because of its prominence in the country's overall economy. Instead of sulking, let's work together to keep our industry's development and competitiveness strong.

86% of European and American chief purchasing officers at major garment firms surveyed by McKinsey said they expected to reduce their sourcing levels from China over the next five years due to decreasing profit margins and capacity constraints.

"Western buyers are investigating a substantial number of sourcing possibilities in the Far East and Southeast Asia, many chief purchasing officers stated in the poll that they saw Bangladesh as the next hot area," they said in the report. In the ready-to-wear sector, Bangladesh was frequently identified as a potential hotspot by buying executives.



## 2.6 RELATED AND SUPPORTING INDUSTRIES

There is already a strong RMG business in Bangladesh, and it can serve as a catalyst for future industrialisation. But this crucial business still relies primarily on imported materials. A whopping 76% of Bangladesh's export revenues come from the country's export-oriented Readymade Garments (RMG) and Primary Textile (PT) sectors and the related Accessory (Trimming & Packaging) businesses. Because of this, we might ask for a distinct ministry for Bangladesh's RMG (Apparel) business. The raw materials provided by supporting industries are critical to the competitiveness of every sector. To assist the apparel sector, Bangladesh is self-sufficient in knit fabric, but producers of accessories and trimmings are more competitive. Cost-effective inputs and improving processes from these industries encourage other businesses in the supply chain to develop. Linkage industries that offer textiles, yarns, accessories, packaging materials, etc. have grown as a result of the RMG industry's expansion. These are the extra service industries where employment is rising, as seen in the graph below:



## 2.7 Other Factors:

A number of important reasons in Bangladesh's RMG industry have encouraged the sector to continue expanding. Even if the RMG industry in Bangladesh continues to do well throughout the world, many people are surprised by this. Bangladesh's RMG industry is heavily influenced by the following factors:

- a large pool of qualified workers,
- Changes in technology in the textile and garment industry,
- Zones of special economic development and export processing
- Establishment of textile and clothing-producing communities,
- To encourage the use of locally sourced materials,
- Import duty reductions on inputs and machineries.
- a decrease in income taxes
- Additionally, there are foreign perks like GSP, GSP+, and duty-free shopping.

We can easily dominate the ready-to-wear industry throughout the world with the help of the aforementioned criteria.

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## 3. Methodology

### 3.1 Research Methodology:

An issue can be approached in a methodical manner by using research technique. It's a branch of science that focuses on the mechanics of conducting research. Research technique, in its broadest sense, refers to the methods used by scientists to do the task of describing, understanding, and forecasting occurrences. Additionally, it is referred to as the study of how information is acquired. Its purpose is to outline the research strategy. It's a method of gathering data in order to make business decisions. As part of the research process, the methodology may comprise a variety of methods, including published research, interviews with experts, surveys, and more.

### 3.2 Research onion:

Research onion contains all methods of conducting research. The author selected research method based on research onion. The research onion is shown in below figure:

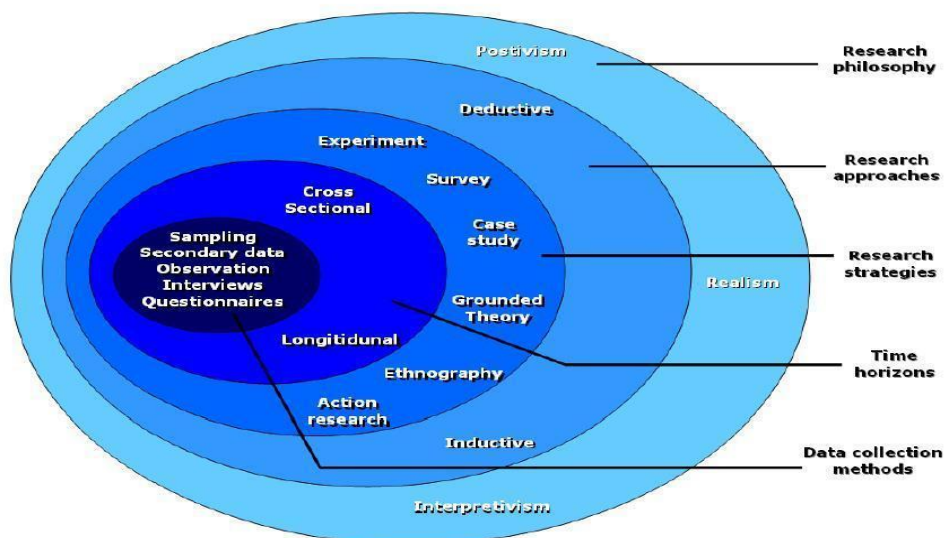


Figure: Research onion:

### 3.3 Types of research:

- **Quantitative research:**

Quantitative data, including numerical and statistical explanations, is required for this research strategy. By creating numerical data or data that may be turned into usable statistics, quantitative research quantifies the problem. It is used to measure attitudes, views, actions, and other specified variables – and generalize results from a broader sample group.

- **Qualitative research**

Using techniques like interviews, surveys, and Observations, this form of study describes a specific scenario in great depth. To begin with, Qualitative Research is exploratory in nature. It's a technique for figuring out what drives people's thoughts, beliefs, and behaviors. It aids in the discovery of new information about the topic or the formulation of hypotheses for future quantitative study.

Considering what has been said so far, the author concludes that a quantitative approach will be the most appropriate for this project. Rather of generalizing, quantitative research is performed to acquire a deeper knowledge of this subject.

### 3.4 Research approaches:

The research goal and research questions of this thesis show that this study uses both exploratory and descriptive research methods. As a result, this investigation would benefit from an exploratory approach.

### 3.5 RESEARCH STRATEGY

Listed below are the three primary survey research methods:

- **Questionnaire:** Written questions that participants respond to in the questionnaire form. Answers to essay or agree/disagree questions are collected using this technique.
- **Interviews:** During an interview, you ask a person questions in order to learn more about them. Like a job interview, one person asks a lot of questions to the other.
- **Surveys:** Brief interviews and discussions with persons on a certain topic are called surveys. To further complicate matters, there is a special sort of survey called a survey. In a survey, the surveyor asks simply a few questions and the results are immediately available to the public.

Any evaluation can make use of a wide range of data collecting techniques. In light of the specific questions, timeline, and resources of the evaluation, each has its own set of pros and drawbacks. The author hoped to gather data from several survey systems, mostly questionnaires, using what we've discussed thus far. A five-point Likert scale was intended by the author for use in the survey. Because the author felt it would be simple to analyze in a short period of time. In addition, the author has done a survey to justify their selection of the survey.

### 3.6 DATA COLLECTION

Primary and secondary sources are the most common ways to get data. There are two types of data: primary data and secondary data, which are derived from primary sources.

- **Primary sources**

Researchers' own data is referred to as "primary data" when making this distinction. This is the first time data has been collected in this manner or throughout this time span. When researchers can't locate what they're looking for elsewhere, they tend to collect this sort of data. Examples of primary sources are:

- Interviews.
- Observing programs, processes, or behaviors.
- Doing surveys.

- **Secondary sources**

Secondary data is data derived from sources other than primary sources, such as:

- The Internet,
- Thesis papers,
- Articles,
- Journals,
- Documents,
- Reports,
- Books etc.

To get the most accurate information regarding the RMG sector's sustainable environment, the author used both primary and secondary data sources. As a part of this research project, primary and secondary data were collected using organized interview schedules and structured questionnaires.

### 3.7 SAMPLING SELECTION

Sampling is involved with the selection of a sample of people from within a statistical population to estimate attributes of the full population. Because Dhaka city has the highest concentration of garment workers, the sample was generated using a non-random opportunity sampling approach (purposive sampling). RMG sector employees and certain RMG sector officials were the majority of the population. Purposefully, a sample size of 20 clothing industry employees and 10 government officials was estimated.

### 3.8 Data Analysis

Regression analysis, Correlation calculation, Anova calculation and SPSS analysis were used to analyze data efficiently.

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## 4. Ethical consideration

### Part I: Reliability:

Reliability is the degree to which an assessment instrument can be relied upon to deliver steady and repeatable outcomes. Consistency is a synonym for reliability.

### Part II: Validity

To the degree that a measurement instrument measures and behaves as it is intended to, it is said to be valid (Miles & Huberman 1994). As a rule of thumb, an instrument's validity is measured in degrees rather than percentages. Validation is the process of gathering and evaluating data to determine the instrument's correctness.

### Part III: Sensitivity

A broader definition of sensitivity analysis (SA) is the process of examining the model's capacity for modification and inaccuracy and the resulting influence on the model's output (Baird, 1989). SA can be simple to perform, simple to comprehend, and simple to convey. As a tool for decision-makers, it may be the most effective and extensively utilized method accessible to modelers today. SA's significance and value are universally acknowledged.

**Relating Reliability, Validity, and sensitivity:**

The validity of a measurement is intimately linked to its reliability. There are a number of fundamental rules to follow.

- In the first place, a test may be judged trustworthy but not legitimate.
- To put it another way, validity trumps dependability in terms of importance.
- Validity, reliability, and sensitivity are the last requirements for a usable instrument.

The author devised a questionnaire and conducted a face-to-face interview with the respondent in order to acquire natural information and data because the author considered that if the author informed them of the aim, they may contribute additional information to the data. It was important to the author to preserve the material as authentic and trustworthy as possible. Surveys and questionnaires were used to solicit information from industry insiders and workers in the RMG industry. Reliability, validity, and sensitivity were all taken into consideration by the author.

**5. Analysis and Discussion****5.1 Frequency distribution:**

The amount of occurrences in each class, as well as a summary grouping of data, may be seen in a frequency distribution. Histograms, line charts, bar charts, and pie charts are some of the graphics that may be used with frequency distributions. Distributions of frequencies are utilized for both qualitative and quantitative data. When it comes to statistical analysis, a frequency distribution is a table that shows the number of times each result occurs in a given sample. The author of this paper does the analysis in SPSS.

**5.2 Correlation Coefficient:**

The correlation calculation helps us better understand and apply it in predictions. In order to calculate correlation, just divide the covariance by the product of the two variables' standard deviations. Using this method, the connection between -1 and +1 will be limited. A correlation of +1 indicates that the two variables are perfectly correlated, while a correlation of -1 indicates that they are perfectly correlated. If the correlation is +1 and the sustainability is increased by 1%, then the RMG sector's development would grow by 1%. There is a direct association between GDP and development when the correlation coefficient is -1.

- **Dependent and independent variables:**

A variable (e.g. **development of RMG sector**) is referred to as a dependent variable in this study. Factors or independent variables refer to variables that may be managed or controlled (e.g. **sustainable environment**).

**5.3 T test:**

Using the two-sample t-test, it is possible to assess if the mean of two populations is the same. One typical use is to see if a new procedure or therapy is better than an existing one. The author also performed a T-test calculation in this section. The results of the T test are shown in the finding section.

**Findings****5.4 Statistical Analysis on sustainable environment and RMG sector:****5.4.1 REGRESSION ANALYSIS:**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.051	1	.051	.375	.545 <sup>b</sup>
	Residual	3.818	28	.136		
	Total	3.869	29			

a. Dependent Variable: development factor



b. Predictors: (Constant), Do any interest about “environmental sustainability”?

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	4.098	.167		24.595	.000
	Do any interest about “environmental sustainability”?	-.068	.112	-.115	-.612	.545

a. Dependent Variable: development factor

RMG goods are in high demand in this era of globalization. Bangladesh's economy benefits from this rising export trend. Simple regression analysis was used to demonstrate the impact of a sustainable environment in the growth of the RMG industry. This statistical study was carried out utilizing the SPSS 20.0 statistical software package.

**5.4.2 Mean median, mode, standard deviation, skewness and kurtosis calculation:**

The author created a new variable called 'development factor of RMG' by taking into account all of the comments. That variable's Mean, Median, Mode and Standard Deviation are shown in the following table:

Development factor		
N	Valid	30
	Missing	0
Mean		4.0051
Median		4.0385
Mode		4.15
Std. Deviation		.36526
Skewness		.349
Std. Error of Skewness		.427
Kurtosis		-.275
Std. Error of Kurtosis		.833

**5.4.3 ANOVA**

Development factor					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.102	2	.051	.365	.698
Within Groups	3.767	27	.140		
Total	3.869	29			

The ANOVA table shows that there is a statistically significant link between the RMG sector's growth and a sustainable environment. Because the test is significant at 0.000 levels (less than 0.05), the basic regression analysis is justified statistically. There is a clear link between the RMG sector's growth and a sustainable environment, according to the results of this study.

**5.4.4 Correlation analysis:**

Correlations

		Do any interest about “environmental sustainability”?	Development factor
Do any interest about “environmental sustainability”?	Pearson Correlation	1	-.115
	Sig. (1-tailed)		.273
	N	30	30
Development factor	Pearson Correlation	-.115	1
	Sig. (1-tailed)	.273	
	N	30	30

There is a negative.115 connection between environmental sustainability and RMG sector growth, with a significance level of.273 at the 1-tailed level. Sustainable development and the growth of the RMG industry are inextricably linked.

5.4.5 T test:

One-Sample Test						
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Development factor	60.059	29	.000	4.00513	3.8687	4.1415

The T test calculation is also shown in above table which also contains the lower and upper value in 95% confidence level.

5.5 Questionnaire Analysis and discussion

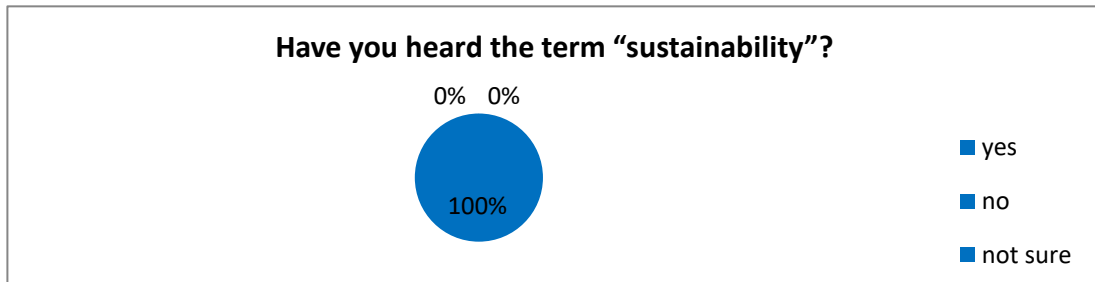
While conducting the survey on, “sustainable environment in the development of RMG sector in Bangladesh” Thirty (30) respondents were chosen randomly who are either involved in working RMG sector or having knowledge about sustainable environment and RMG sector. All of them were given questionnaire papers. A set of questionnaire contains 5 points Likert scale question, multiple choice questions which is given in appendix part.

To fulfill this objective some selected issues that are influencing the working environment in RMG sector in Bangladesh have been discussed. These issues are wages, safety, security, harassment, government policy and the performance of the participants. In this purposes the author have made a formal questionnaire to know the environmental issues and the contribution of RMG sector.

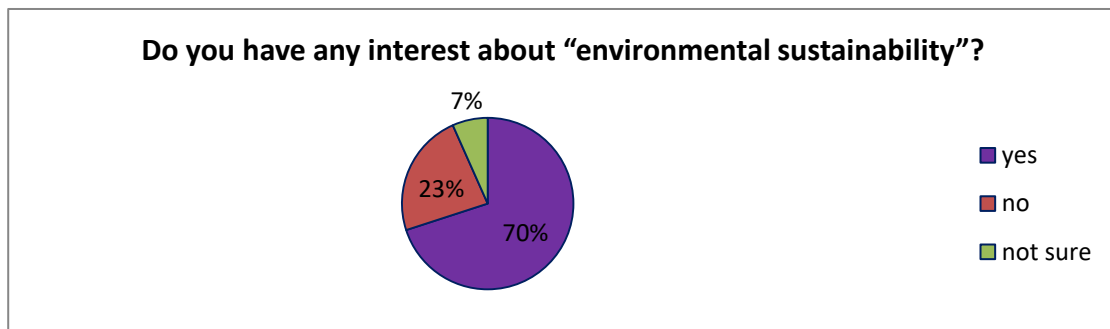
5.5.1 Analysis of the respondents’ opinion:

For finding the result the author inputted all the survey answer into SPSS and found out frequency of every question. By using frequency table and Pie chart the analysis is given below by sequence of the question:

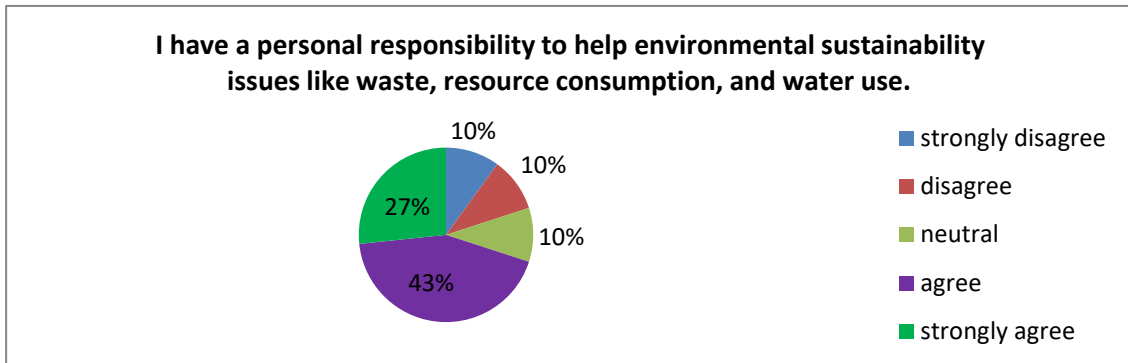
By observing the above frequency table it is noticeable that among 30 respondents of the survey questionnaire about 100 percent of the respondents answered “yes” to the statement “Have you heard the term sustainability”? So it is understood that most of the respondents know about sustainability. It is shown in the Pie chart below:



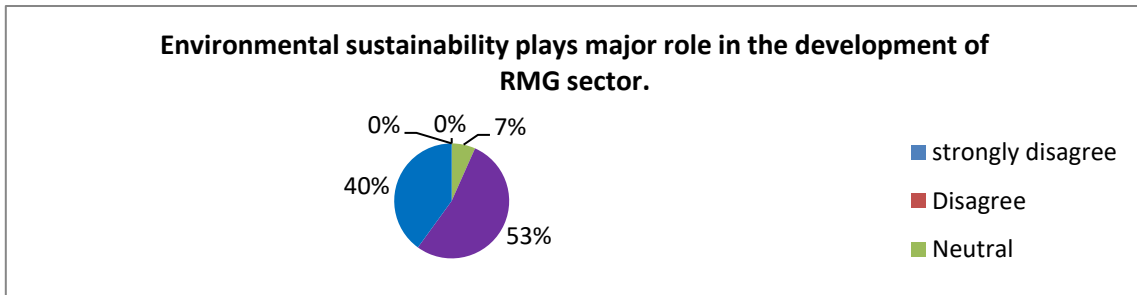
Among 30 respondents of the survey questionnaire, maximum 70 percent of the respondents answered ‘yes’ with the point of “Do any have interest about environmental sustainability”? 23.3 percent answered ‘No’ and 6.7 percent answered ‘Not sure’. So maximum of the respondents have interest on environmental sustainability. It is shown in the Pie chart below:



Among 30 respondents of the survey questionnaires, maximum 43.3 percent agree with the point of ‘I have a personal responsibility to help environmental sustainability issues like waste, resource consumption, and water use’. 26.7 percent of the respondents strongly agree. While 10 percent are neutral, 10 percent are disagreeing and 10 percent strongly disagree with this point. On average, maximum concentration was in the Agree proportion. So majority of the respondents have responsibility on environmental issues which ensure sustainable environment. It is shown by the chart in below:

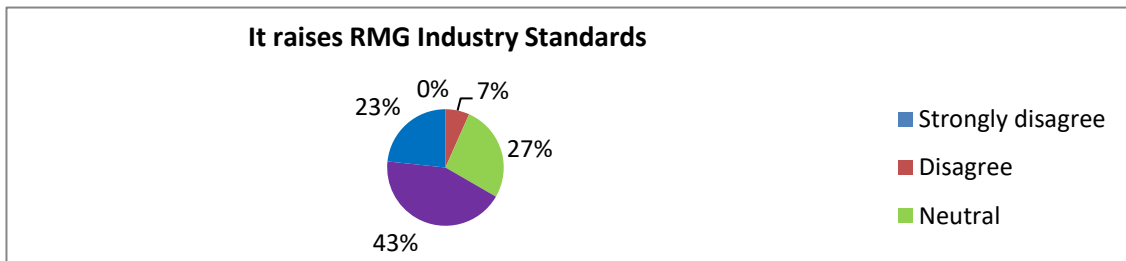


Among 30 respondents of the survey questionnaires, maximum 53.3 percent agree with the point of ‘Environmental sustainability plays major role in the development of RMG sector’. 40 percent of the respondents strongly agree. While 6.7 percent are neutral with this point. On average, maximum concentration was in the Agree proportion. So majority of the respondents believe that the development of RMG sector depends much on sustainable environment.

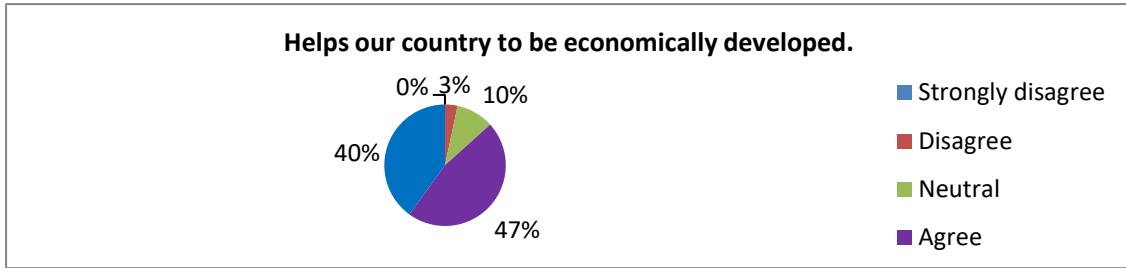


It is no secret that RMG production in Bangladesh has grown tremendously during the previous three decades. As of the early 1980s, the RMG business has grown to be a significant factor in the country's economy, progressively displacing the jute sector. An important part of the development of the sector was due to the "export-quota system." The fast growth of Bangladesh's garment sector, which contributed more than 16.31% of the country's GDP in 2012-13, has helped the country rise to the position of second-largest worldwide exporter of apparel (BBS, 2014). Over seventy-eight percent of all export revenues in 2012-13 came from the RMG sector alone. This was only achievable because the RMG industry was provided with an environment that allowed for sustained production.

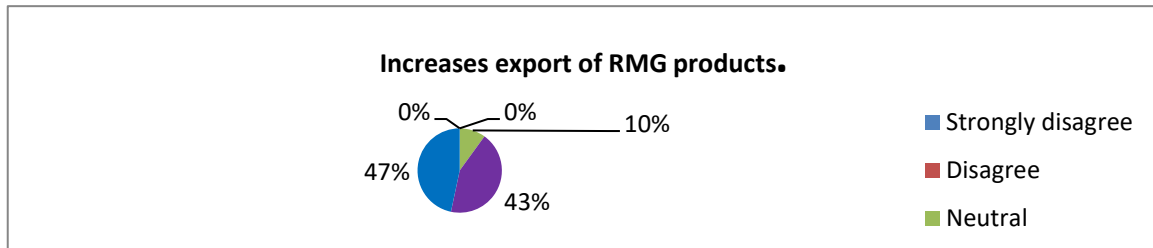
Among 30 respondents of the survey questionnaires, maximum 43.3 percent agree with the point of ‘It raises RMG Industry Standards’. 23.3 percent of the respondents strongly agree. While 26.7 percent are neutral and 6.7 percent disagree with this point. On average, maximum concentration was in the Agree proportion. So majority of the respondents believe that sustainable environment raises industry standards.



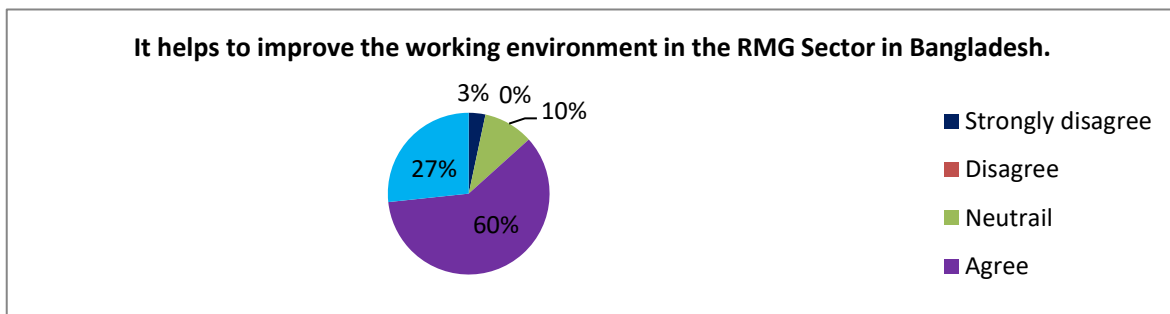
The \$10 billion ready-made garment (RMG) sector in Bangladesh has transformed the lives of tens of millions of people in the country. Some three million people are directly employed by the clothing industries, while millions more are indirectly supported by them. It is shown by the chart Among 30 respondents of the survey questionnaires, maximum 46.7 percent agree with the point of ‘Helps our country to be economically developed’. 40 percent of the respondents strongly agree. While 10 percent are neutral and 3.3 percent disagree with this point. On average, maximum concentration was in the Agree proportion. So majority of the respondents believe that sustainable environment helps our country to be economically developed.



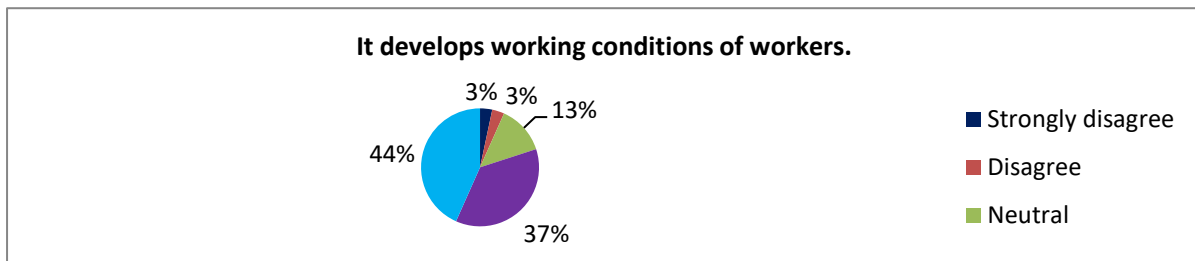
Among 30 respondents of the survey questionnaires, maximum 46.7 percent strongly agree with the point of **‘Increases export of RMG products’**. 43.3 percent of the respondents agree. While 10 percent are neutral with this point. On average, maximum concentration was in the strongly Agree proportion. So majority of the respondents believe that sustainable environment helps to increase export of RMG products.



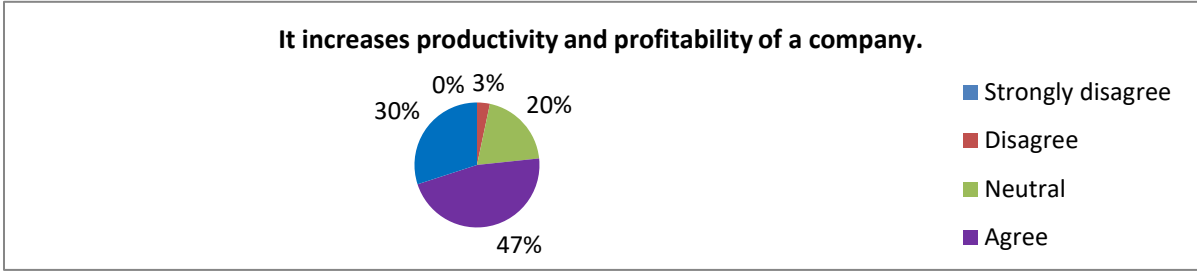
Among 30 respondents of the survey questionnaires, maximum 60 percent agree with the point of **‘It helps to improve the working environment in the RMG Sector in Bangladesh.’** 26.7 percent of the respondents strongly agree. While 10 percent are neutral and only 3.3 percent strongly disagree with this point. On average, maximum concentration was in the Agree proportion. These incidents include the fire at Tazreen Fashions and Rana Plaza's collapse, which killed more than 1,200 Bangladeshi RMG employees in recent years. It is the goal of the ILO Program on Improving Working Conditions in the Ready-Made Garment Sector to support the National Tripartite Plan of Action on Fire Safety & Building Integrity and the Bangladeshi Government's promises to enhance working conditions and worker safety in the RMG industry.



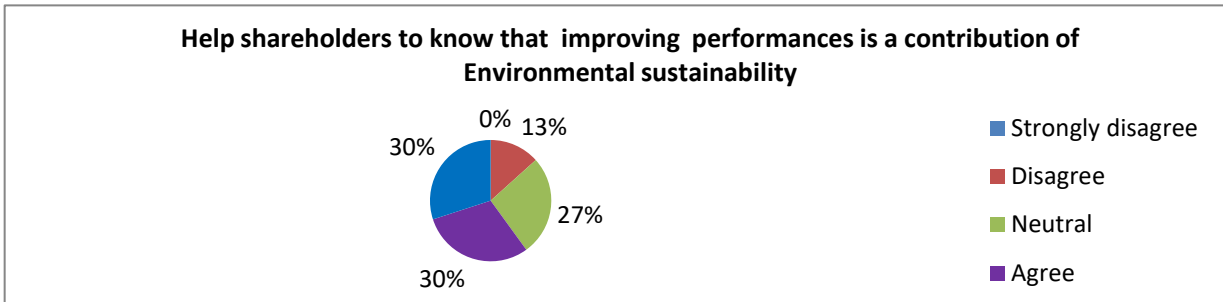
Among 30 respondents of the survey questionnaires, maximum 43.3 percent strongly agree with the point of **‘It develops working conditions of workers’**. 36.7 percent of the respondents agree. While 13.3 percent are neutral, only 3.3 percent strongly disagree and 3.3 percent disagree with this point. On average, maximum concentration was in the Agree proportion.



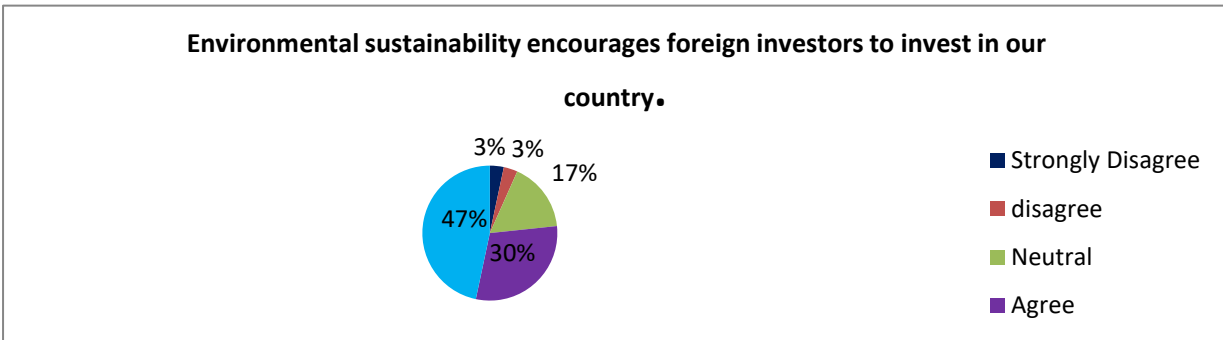
Among 30 respondents of the survey questionnaires, maximum 46.7 percent agree with the point of **‘It increases productivity and profitability of a company’**. 30 percent of the respondents strongly agree. While 20 percent are neutral and only 3.3 percent disagree with this point. On average, maximum concentration was in the Agree proportion.



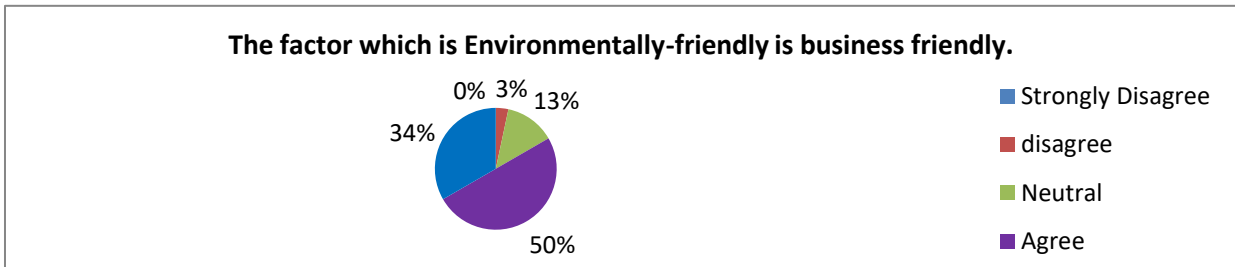
Among 30 respondents of the survey questionnaires, maximum 30 percent agree with the point of **‘Help shareholders to know that improving performances is a contribution of Environmental sustainability’**. 30 percent of the respondents strongly agree. While 26.7 percent are neutral and only 13.3 percent disagree with this point. On average, maximum concentration was in the Agree proportion.



Among 30 respondents of the survey questionnaires, maximum 46.7 percent strongly agree with the point of **‘Environmental sustainability encourages foreign investors to invest in our country’**. 30 percent of the respondents agree. While 16.7 percent are neutral only 3.3 percent disagree and only 3.3 percent strongly disagree with this point. On average, maximum concentration was in the strongly Agree proportion.



Among 30 respondents of the survey questionnaires, maximum 50 percent agree with the point of **‘the factor which is Environmentally-friendly is business friendly’**. 33.3 percent of the respondents strongly agree. While 13.3 percent are neutral only 3.3 percent disagree with this point. On average, maximum concentration was in the strongly Agree proportion. RMG has generated considerable economic growth. Progress initiatives demonstrate that environmentally friendly practices make commercial sense.



Among 30 respondents of the survey questionnaires, maximum 40 percent agree with the point of **‘Act as a business-minded advocate for environmental sustainability at the local, state, and federal legislative levels’**. 20 percent of the respondents strongly agree. While 33.3 percent are neutral only 6.7 percent disagree with this point. On average, maximum concentration was in the strongly Agree proportion.

### Act as a business-minded advocate for environmental sustainability at the local, state, and federal legislative levels



Among 30 respondents of the survey questionnaires, maximum 40 percent agree with the point of 'It educates its members on sensible, economical, and ecologically responsible business procedures'. 20 percent of the respondents strongly agree. While 23.3 percent are neutral only 16.7 percent disagree with this point. On average, maximum concentration was in the strongly Agree proportion.

### It educates its members on sensible, economical, and ecologically responsible business procedures



From the above discussion it is seen that maximum of the respondents are agree on the importance of environmental sustainability. So, environmental sustainability plays a major role in the development of RMG sector in Bangladesh.

## 6. Limitation, Recommendation and Conclusion

### 6.1 Limitations of RMG sector:

Another objective of this study is to find out the problems faced by the RMG sector in Bangladesh lack of sustainability. Workers have been facing problems in working in RMG sector. A questionnaire was made to know the problems faced by the workers. Based on the analysis this report shows some limitations below:

- Factory workers were not in a healthy working environment.
- The proprietors compelled employees to labor in a hazardous and unhygienic environment that was overloaded with people beyond the manufacturing floor's capacity and had no ventilation.
- The salary scale is quite low when compared to the level of living.
- Women are employed in a wide range of vocations, including ironing, folding, packing, checking, cleaning the threads, cutting, stitching, inserting buttons, making button holes, training, and supervising.
- The majority of illiterate men and women who work in the garment industry is unskilled, which results in frequently lower-quality products.
- Recent political turmoil and widespread general strikes have had a negative impact on the ready-to-wear industry, driving up production costs.
- Foreign suppliers frequently provide low-quality raw materials, which lead to low-quality finished goods.
- Workers lack freedom in RMG sector.

### 6.2 Recommendations

The author thought the following suggestions and recommendations are seen feasible for the improvement of the problems listed above of RMG sector in Bangladesh. These are given below:

- The government may help to improve the situation by establishing appropriate policies to safeguard the clothing industries, resolving the license issue, providing speedy loading facilities in the port, creating a suitable working environment, and protecting the sector from political issues and bias.

- The two major political parties should refrain from taking any negative or divisive actions that would be detrimental to the general welfare of the populace, such as going on strike.
- The presence of reliable infrastructure facilities is a requirement for economic growth.
- The creation of laws should not be the only thing on the minds of policymakers; they should also be concerned with their execution.
- Buildings ought to be built using fire-retardant materials.
- Infrastructure development will prevent issues with safety, unskilled labor, lead times, transportation, and other issues. It will also increase women's knowledge of discrimination.
- Create policies that would lessen discrimination and give women more authority.
- Keeping an eye on labor standards.
- The right facilities and training should be provided to improve the quality control staff's skills.
- They are able to import some essential mechanized and advanced equipment.
- Facilities for training should be introduced, especially for new hires.

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## Conclusion

In Bangladesh's economy, the Ready-Made Garments (RMG) sector holds a special place. It is Bangladesh's largest export sector and has shown incredible growth over the past 25 years. It is crucial for creating jobs and giving the underprivileged people access to income. Bangladesh must eliminate all structural barriers in the transportation infrastructure, telecommunications network, power supply, administration of the seaport, utility services, and the state of law and order in order to continue to be successful. For the RMG industry to remain competitive in the international RMG market, the government and the RMG sector must work together. Bangladesh can anticipate growing its market share for RMGs as a result of its workforce's commitment and amazing entrepreneurial endeavors. This article has investigated “**sustainable environment in the development of ready-made garments sector in Bangladesh**”. Even though Bangladesh has labor regulations and is a member of the WTO and ILO, the report determined that working conditions are inadequate and difficult. These include the ineffective application of labor laws and rights, the involvement of the Bangladeshi government and business owners in implementing decent work in the RMG sector, collective bargaining activities, and fair labor practices. It implied that observation was required to guarantee environmental sustainability.

The monitoring mechanism recommended by the ILO in this article should be implemented to establish workers' rights in Bangladesh's RMG sector. Similar to Cambodia, Bangladesh monitoring with ILO help might see the RMG industry change to comply with both the ILO's minimum labour standards and best fair labor practices. Long-term job happiness needs deliberate planning and commitment from both management and employees. Therefore, improving the working conditions in the RMG industry requires cooperation between the government and the global society. Due to a lack of funding as well as inadequate attention from the government and policymakers, the RMG industry in Bangladesh has weak infrastructure. As a result, the ILO will play a significant role in monitoring environmental issues. As an example, the Better Factory Programmed in Cambodia and its effectiveness might serve as a model for the ILO's supervisory and monitoring system.

## References

- Ahmed, N., 2012. Economic and Social Upgrading in the Ready-made Garment Sector of Bangladesh: Some experiences. Centre of Policy Dialogue, Dhaka.
- Ahmmed, S.S.U., Hossain, J. and Khan, A.K., 2011. Building Trade Unions Unity in Bangladesh. Dhaka: Bangladesh Institute of Labor Studies, 19..
- Islam, M. and Ahmad, M., 2016. Impact of Dissimilar Laws and Rules on Worker's Satisfaction in Ready-Made Garments of Bangladesh: A Comparative Study between the Factories Inside EPZ and Outside EPZ. *International Journal of Management and Business Studies (IJMBS)* Vol, 6.
- Islam, S. and Roman, R.I., 2019. Assessment of fire hazard on the readymade garment industry in Chittagong city, Bangladesh: A geo-spatial analysis of CEPZ and Baizid industrial hub. *Indonesian Journal of Environmental Management and Sustainability*, 3(1), pp.20-28.
- Rahman, M., Rashid, S.Z.A. and Basiruddin, R., 2018. Workforce Diversity Mangement: A Study on Dong-Bang Textile LTD.,(DBTL), Bangladesh. *Journal of Advanced Research in Business and Management Studies*, 12(1), pp.46-61.
- Argyrou, K., 2014. Exploring the logistics sector in Bangladesh: opportunities, threats and practical information.
- BGMEA, 2017. Bangladesh garment manufacturers and exporters association.
- Berg, A., Herich, S., Kempf, S. and Tochtermann, T., McKinsey.(2011). Bangladesh's ready-made garments landscape: The challenge of Growth.

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- Alamgir, F., Alamgir, F. and Irina Alamgir, F., 2022. Live or be left to die? Deregulated bodies and the global production network: Expendable workers of the Bangladeshi apparel industry in the time of Covid. *Organization*, 29(3), pp.478-501.
  - Abdin, M.D., 2008. Overall Problems and Prospects of Bangladeshi Ready-Made Garments Industries. Overall Problems and Prospects of Bangladeshi Ready-Made Garments Industries (January 1, 2008).
  - Berg, A., Hedrick, S., Kempf, S. & Tochtermann, T., (2011) Bangladesh's Ready-made Garments landscape: The challenge of growth. McKinsey & Company, Inc.
  - Hasan, J., 2013. The Competitiveness of Ready Made Garments Industry of Bangladesh in Post MFA era: How does the industry behave to face the competitive challenge? 5.